Electives (select 7 units with at least one 500-level seminar)
Comprehensive Examination (written):
Students should expect to take the comprehensive examination (BUS 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

**Master of Science Degree in Business Administration**
This is a specialized degree program permitting concentration and research in one of the following options: Business Economics, Finance, International Business, Management, Management Information Systems, and Marketing.

**Admission to the Program**
In addition to completing the 52 quarter units of acceptable basic business courses listed above, applicants must have an approved graduate degree program on file in the Graduate Programs Office.

**Requirements for the Degree (45 units)**
A total of 45 units is required, with at least 41 500-level courses.

**Required Core (23–26 units):**
- ACCT 503 Quantitative Approach to Managerial Decisions (4)
- ECON 502 Economic Analysis and Business Operations (4)
- MGMT 501 Administrative Behavior and Systems Management (4)
- MGMT 594 Policy Integration and Strategy (3)

**A 598 course, for 4–7 units, chosen from ECON, FIN, MGMT, or MKT, depending on option chosen.**

**Thesis (5 units):**
- BUS 599AB Thesis (2, 3)

**Options (14–17 units):**
Select one of the following options; electives are selected in conference with a graduate adviser to meet professional objectives.

- **Business Economics Option (14–17 units):**
  **Required Courses (9 units):**
  - ECON 510 Seminar: Advanced Microeconomic Theory I (3)
  - ECON 511 Seminar: Advanced Microeconomic Theory II (3)
  - ECON 520 Seminar: National Income and Employment Theory (3)
  - ECON 521 Seminar: Monetary Theory and Policy (3)
  **Electives (4–7 units):**

- **Finance Option (14–17 units):**
  **Required Courses (9 units):**
  - FIN 530 Seminar: Business Finance (3)
  - FIN 531 Seminar: Financial Institutions (3)
  - FIN 532 Seminar: Estate Planning (3)
  **Electives (4–7 units):**

- **International Business Option (14–17 units):**
  **Required Courses (select 9 units from following):**
  - ACCT 525 Seminar: International Accounting (3)
  - ECON 561 Seminar: International Economics (3)
  - FIN 533 Seminar: International Finance (3)
  - MGMT 577 Seminar: International Business Management (3)

**Electives (4–7 units):**
In addition, intermediate level proficiency in an appropriate foreign language is recommended.

- **Management Option (14–17 units):**
  **Required Courses (9 units):**
  - MGMT 560 Seminar: Strategic Planning (3)
  - MGMT 561 Seminar: Organizing (3)
  - MGMT 562 Seminar: Control (3)
  **Electives (4–7 units):**

- **Management Information Systems Option (14–17 units):**
  **Required Courses (9 units):**
  - CIS 527 Seminar: Computerized Decision Analysis (3)
  - CIS 528 Seminar: Current Problems in Business Information Systems (3)
  - CIS 584 Seminar: Controlling and Auditing Computer Systems (3)
  **Electives (4–7 units):**

**Marketing Option (14–17 units):**
**Required Courses (9 units):**
- MKT 542 Seminar: Marketing Management (3)
- MKT 543 Seminar: International Marketing (3)
- MKT 544 Seminar: Consumer Behavior (3)
**Electives (4–7 units):**

**Master of Business Administration Degree**
This is a broad, management-oriented degree providing for only limited concentration in one of the following options: accounting, business economics, business information systems, finance, international business, management, marketing, office systems.

**Admission to the Program**
In addition to completing the 52 quarter units of acceptable preparatory business and related courses listed under *Classified Graduate Standing* earlier in this chapter and, for students concentrating in accounting, 20 quarter units in accounting (320ABC, 321, and 420), applicants must have an approved graduate program on file in the Graduate Programs Office.

**Requirements for the Degree (52 units):**
A total of 52 units is required, with at least 48 in 500-level courses.

**Required Core (31 units):**
- ACCT 503 Quantitative Approach to Managerial Decisions (4)
- ACCT 520 Seminar: Management Accounting Theory (3)
- ACCT 598 Graduate Directed Study (1)
- ECON 502 Economic Analysis and Business Operations (4)
- ECON 520 Seminar: Advanced Microeconomic Theory I (3)
- ECON 530 Seminar: Business Finance (3)
- FIN 598 Graduate Directed Study (1)
- MGMT 501 Administrative Behavior and Systems Management (4)
- MGMT 594 Policy Integration and Strategy (3)
- MKT 542 Seminar: Marketing Management (3)
- MKT 543 Seminar: International Marketing (3)
- MKT 544 Seminar: Consumer Behavior (3)
- Electives (21 units): Select 400- or 500-level courses with adviser approval. A maximum of 16 units may be taken in one field, chosen from accounting,
business information systems, finance, international business, management, marketing, office systems, or business economics. Each 3-unit, 500-level seminar included must be accompanied by a 1-unit OSBE 598 course from the same department. A minimum of 16 units must be 500 level.

Comprehensive Examination (written) (0 units): Students should expect to take the comprehensive examination (BUS 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

Master of Arts Degree in Business Education

This program is designed to meet the needs of business education teachers primarily at the secondary school and community college levels. Students select one of two options: Community College or Secondary School.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must complete the 40 units of preparatory courses in business and related fields listed below and must have an approved graduate program on file in the Graduate Programs Office.

Preparatory Courses (40 units):

| ACCT 202R          | CIS 262R          |
| ECON 201, 202, 369R | FIN 261R, 363R    |
| MGMT 308           | MKT 364R          |
| OSBE 361R          |                   |

Additional prerequisites for the Community College Option are listed by specialization within the option as follows:

- **Accounting**—16 units of 400- or 500-level accounting courses
- **Banking and Finance**—16 units of 400- or 500-level finance or banking courses
- **Business and Industrial Management**—16 units of 400- or 500-level management courses
- **Computer and Related Technologies**—16 units of 400- or 500-level computer information systems courses.
- **Economics**—16 units of 400- or 500-level economics courses
- **Marketing and Distribution**—16 units or 400- or 500-level marketing courses
- **Office Systems**—16 units of 400- or 500-level office systems or business education courses

Suitable credit will be given for any equivalent courses taken either as an undergraduate or graduate prior to matriculation at Cal State L.A., provided the student supplies acceptable proof of course equivalency. All courses taken subsequently to matriculation must be taken at Cal State L.A. A minimum B (3.0) grade point average is required in all basic business core courses taken subsequent to the baccalaureate.

Requirements for the Degree (45 units)

A total of 45 units is required, with 23 in 500-level courses. A comprehensive examination is required.

**Required Courses (16 units):**

- OSBE 510 Seminar: Contemporary Issues and Trends in Business Education (3)
- OSBE 511 Seminar: Administration and Supervision in Business Education (3)
- OSBE 512 Seminar: Research in Business Education (3)
- OSBE 514 Seminar: Evaluation of Student Performance in Business Education (3)
- OSBE 598 Graduate Directed Study (4)

**Options**

- Community College Option (29 units)

Select one specialization listed below.

**Accounting**

**Required Courses (10 units)**

- ACCT 503 Quantitative Approaches to Managerial Decisions (4)
- ACCT 520 Seminar: Management Accounting Theory (3)
- ACCT 598 Graduate Directed Study (3)

**Electives (19 units):**

- With graduate adviser approval, select six or more units from 500-level ACCT courses plus nine or more units from EDSE 421A, EDSE 581, OSBE 410AB.

**Banking and Finance**

**Required Courses (7 units)**

- FIN 530 Seminar: Business Finance (3)
- FIN 598 Graduate Directed Study (4)

**Electives (22 units):**

- With graduate adviser approval, select nine or more units from 500-level FIN courses plus nine or more units from EDSE 421G, EDSE 581, OSBE 410AB.

**Business and Industrial Management**

**Required Courses (6 units)**

- MGMT 501 Administrative Behavior and Systems Management (4)
- MGMT 598 Graduate Directed Study (2)

**Electives (23 units):**

- With graduate adviser approval, select 10 or more units from 500-level MGMT courses or OSBE 517 (which requires a corequisite of OSBE 598 for one unit) plus nine or more units from EDSE 421G, EDSE 581, OSBE 410AB.

**Computer and Related Technologies**

**Required Courses (6 units)**

- CIS 504 Management Information Systems (4)
- CIS 598 Graduate Directed Study (2)

**Electives (23 units):**

- With graduate adviser approval, select 10 or more units from 500-level CIS courses, OSBE 515, or OSBE 517 (which requires a corequisite of OSBE 598 for one unit) plus nine or more units from EDSE 421G, EDSE 581, OSBE 410AB.

**Economics**

**Required Course (4):**

- ECON 502 Economic Analysis and Business Operations (4)

**Electives (25 units):**

- With graduate adviser approval, select 12 or more units from 500-level ECON courses plus nine or more units from EDSE 421G, EDSE 581, OSBE 410AB.

**Marketing and Distribution**

**Required Courses (7 units):**

- MKT 542 Seminar: Marketing Communication (3)
- MKT 598 Graduate Directed Study (4)
Master of Arts Degree in Economics

The Master of Arts Degree in Economics is intended for individuals seeking advanced training in economics for use in finance, public policy, and education who need to develop an understanding of contemporary economic analysis.

Required Courses (12 units)
- ECON 510 Seminar: Advanced Microeconomic Theory I (3)
- ECON 520 Seminar: National Income and Employment Theory (3)
- ECON 511 Seminar: Advanced Microeconomic Theory II (3)
- ECON 521 Seminar: Monetary Theory and Policy (3)
- ECON 598 Graduate Directed Study (1, 1, 1)
- Concurrent enrollment in ECON 598 for 1 unit required with each of these seminars.

Options
Select one of the following options for 28-33 units. Electives are determined in conference with a graduate adviser to meet the professional objectives of students.

- General Option (23-33 units)
  Required Courses (8 units):
  - ECON 413 Mathematical Economics (4)
  - ECON 414 Econometrics (4)
  Electives (20-25 units):
  Select 400- and 500-level courses in economics, social and behavioral sciences, business, or mathematics, in consultation with a graduate adviser. A sufficient number must be at the 500 level to bring the total 500-level units for core and electives to at least 23. The electives shall include a field of concentration for those electing the comprehensive examination.

- Analytic-Quantitative Option (28-33 units)
  Required Courses (16 units):
  - ECON 409 Advanced Applied Business and Economic Statistics III (4) or
  - ECON 491 Sampling Theory and Techniques in Research (4) or
  - MATH 475 Introduction to Mathematical Statistics (4)
  - ECON 413 Mathematical Economics (4)
  - ECON 414 Econometrics (4)
  - ECON 514 Seminar: Econometrics (3)
  - ECON 596 Graduate Directed Study (1)
  Electives (12-17 units):
  Select 400- and 500-level courses in economics, social and behavioral sciences, business, or mathematics in consultation with a graduate adviser. A sufficient number must be at the 500 level to bring total 500-level units for core and electives to at least 23. The electives shall include a field of concentration for those electing the comprehensive examination.

Admission to the Program
In addition to university requirements for admission to graduate study with conditionally classified standing, the following are prerequisite to admission as a classified graduate student in Economics: equivalent of the baccalaureate in Economics at Cal State L.A., or completion with a B (3.0) average of a set of prerequisite courses selected by an Economics adviser at Cal State L.A.; filing of a program, including electives, with the School of Business and Economics.

If qualifying courses are required, they must be so designated in advance. They may include upper division and prerequisite courses.

Requirements for the Degree (45 units)
The 45-unit program consists of core requirements which are to be taken together with either the General Option or the Analytic-Quantitative Option. A minimum of 23 units must be 500 level.

Required Courses (12 units):
- ECON 510 Seminar: Advanced Microeconomic Theory I (3)
- ECON 520 Seminar: National Income and Employment Theory (3)
- ECON 511 Seminar: Advanced Microeconomic Theory II (3)
- ECON 521 Seminar: Monetary Theory and Policy (3)
- ECON 598 Graduate Directed Study (1, 1, 1)
- Concurrent enrollment in ECON 598 for 1 unit required with each of these seminars.

Options
Select one of the following options for 28-33 units. Electives are determined in conference with a graduate adviser to meet the professional objectives of students.

- General Option (23-33 units)
  Required Courses (8 units):
  - ECON 413 Mathematical Economics (4)
  - ECON 414 Econometrics (4)
  Electives (20-25 units):
  Select 400- and 500-level courses in economics, social and behavioral sciences, business, or mathematics, in consultation with a graduate adviser. A sufficient number must be at the 500 level to bring the total 500-level units for core and electives to at least 23. The electives shall include a field of concentration for those electing the comprehensive examination.

- Analytic-Quantitative Option (28-33 units)
  Required Courses (16 units):
  - ECON 409 Advanced Applied Business and Economic Statistics III (4) or
  - ECON 491 Sampling Theory and Techniques in Research (4) or
  - MATH 475 Introduction to Mathematical Statistics (4)
  - ECON 413 Mathematical Economics (4)
  - ECON 414 Econometrics (4)
  - ECON 514 Seminar: Econometrics (3)
  - ECON 596 Graduate Directed Study (1)
  Electives (12-17 units):
  Select 400- and 500-level courses in economics, social and behavioral sciences, business, or mathematics in consultation with a graduate adviser. A sufficient number must be at the 500 level to bring total 500-level units for core and electives to at least 23. The electives shall include a field of concentration for those electing the comprehensive examination.

Admission to the Program
In addition to university requirements for admission to graduate study with conditionally classified standing, the following are prerequisite to admission as a classified graduate student in Economics: equivalent of the baccalaureate in Economics at Cal State L.A., or completion with a B (3.0) average of a set of prerequisite courses selected by an Economics adviser at Cal State L.A.; filing of a program, including electives, with the School of Business and Economics.

If qualifying courses are required, they must be so designated in advance. They may include upper division and prerequisite courses.

Requirements for the Degree (45 units)
The 45-unit program consists of core requirements which are to be taken together with either the General Option or the Analytic-Quantitative Option. A minimum of 23 units must be 500 level.

Required Courses (12 units):
- ECON 510 Seminar: Advanced Microeconomic Theory I (3)
- ECON 520 Seminar: National Income and Employment Theory (3)
- ECON 511 Seminar: Advanced Microeconomic Theory II (3)
- ECON 521 Seminar: Monetary Theory and Policy (3)
- ECON 598 Graduate Directed Study (1, 1, 1)
- Concurrent enrollment in ECON 598 for 1 unit required with each of these seminars.
Admission to the Program

In addition to university requirements for admission to graduate study, applicants must meet the following requirements:

- A 2.75 grade point average or above in the last 90 quarter units.
- A résumé that documents a minimum of one year recent full-time work experience or equivalent in a health care setting.
- Two recommendations from persons who have supervised the applicant's work in a health care setting (send to Health Care Management Advisory Committee, Department of Management, School of Business and Economics, prior to May 15 for admission to summer quarter, August 1 for fall quarter, November 15 for winter quarter, and February 15 for spring quarter).

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses.

Required Courses (28 units):

- MGMT 461 Management Theory and Practice (4)
- MGMT 470 Managerial Leadership and Motivation (4)
- MGMT 478 Financial Management of Health Care Institutions (4)
- MGMT 501 Administrative Behavior and Systems Management (4)
- MGMT 564 Labor Relations Aspects of Health Care Delivery (2)
- MGMT 576 Seminar: Managing Health Care Organizations (3)
- MGMT 598 Graduate Directed Study (1)
- NURS 562 Human Resource Utilization in Health Care Organizations (2)
- NURS 564 Seminar: Health Care Administration (2)
- MGMT 595 Advanced Field Study (2) or
- NURS 595 Advanced Field Study (2)

Electives (select 17 units of 400- or 500-level courses with prior adviser approval).

Comprehensive Examination (0 units):

Students should expect to take the comprehensive examination (BUS 596) the quarter they complete all required courses and the quarter they complete all work on the program and must comply with school and departmental regulations.
COURSES IN BUSINESS AND ECONOMICS

Courses in Business and Economics—Interdepartmental (BUS)

400-level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing and approval by the School of Business and Economics Graduate Programs Office are required for admission to all 500-level courses.

597 Graduate Research (1–4)
Prerequisites: Instructor consent to act as sponsor, approval of graduate associate dean prior to registration. Independent research under guidance of faculty member. Acceptable final written report required. May be repeated for credit to maximum of 8 units. Graded CR/NC.

599A Thesis (2)
Prerequisites: Written approval of graduate adviser; for M.S. Business Administration candidates, completion of at least one of ACCT 503, ECON 502, or MGMT 501 and concurrent registration in at least one of the remaining two courses. Formal course in research methodology conducted at option of individual departments. Prior to completion, students will have: completed a tentative outline of thesis, petitioned graduate adviser for appointment of a thesis committee, and submitted tentative outline to thesis committee. Graded CR/NC.

599B Thesis (3)
Prerequisites: BUS 599A, written approval of thesis committee chair. Completion of thesis under direct supervision of thesis committee. Graded CR/NC.

Courses in Accounting (ACCT)

Undergraduate Courses

The following undergraduate courses are restricted to conditionally classified graduate students. They do not yield credit toward advanced degrees.

260R Accounting Principles (4)
Fundamentals of accounting theory and practice; how accounting serves the business entity.

360R Management Accounting and Analysis (4)
Prerequisite: ACCT 202 or 260R. Use of accounting data for cost control and decision-making. Topics include cost accounting, cost volume profit analysis, relevant costs, profit planning, capital budgeting, and tax considerations.

400-level Courses

All 400-level courses except those followed by the suffix R may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing and approval by the School of Business and Economics Graduate Programs Office are required for admission to all 500-level courses.

503 Quantitative Approach to Managerial Decisions (4)
Use of quantitative information provided from accounting and statistical sources in arriving at solutions to complex business problems.

520 Seminar: Management Accounting Theory (3)
Corequisite: ACCT 598. Advanced accounting theory as applied to modern business practice; background and place of accounting in society and the economy; current development in accounting theory.

521 Seminar: Financial Accounting Theory (3)
Corequisite: ACCT 598. Advanced analytical concepts implicit in contemporary accounting practice; current developments in accounting techniques; specific applications to major aspects of financial statements.

522 Seminar: Current Topics in Financial Reporting (3)

523 Seminar: Public Accounting (3)
Corequisite: ACCT 598. Historical development of professions; audit function in relation to ethical and legal considerations, trends in new services for clients, the CPA firm, multinational practice, signposts of the future.

524 Seminar: Advanced Cost and Managerial Accounting (3)
Prerequisite: ACCT 422; corequisite: ACCT 598. Selected analytical and policy issues underlying current developments in standards and techniques; application of advanced concepts to profit and nonprofit organizations.

525 Seminar: International Accounting (3)
Corequisite: ACCT 598. Selected analytical and policy issues underlying current developments in international accounting.

585 Seminar: Tax Theory and Business Applications (3)
Prerequisite: ACCT 421A; corequisite: ACCT 598. Tax concepts and judicial doctrines inherent in federal tax law; effects of taxation of business organization, capital structure, policies, and operation.

586 Seminar: Tax Research and Practice (3)
Prerequisite: ACCT 421A; corequisite: ACCT 598. Methodology of researching complex tax problems; tax planning; scope of activity, responsibility, and ethics of accountant in tax field.

587 Seminar: Taxation of Corporations and Shareholders (3)
Prerequisite: ACCT 421A; corequisite: ACCT 598. Statutory, regulatory, and case material applicable to corporation tax including formation, stock redemptions, and liquidations; stock dividends and preferred stock buyouts; elections under subchapter S; personal holding companies, accumulated earning tax; collapsible corporations.

598 Graduate Directed Study (1)
Investigation of an approved project leading to written report; project selected in conference with seminar professor, and arrangements made for regular meetings during quarter. May be repeated for credit.
## Courses in Computer Information Systems (CIS)

### Undergraduate Course

The following undergraduate course is restricted to conditionally classified graduate students. It does not yield credit toward advanced degrees.

### 262R Business Information Processing (4)
- Fundamentals of computer hardware, software, and communications subsystems; business modeling in IFPS; programming in BASIC; use of time-sharing terminals for interactive data processing.

### 400-level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

### Graduate Courses

Classified graduate standing and approval by the School of Business and Economics Graduate Programs Office are required for admission to all 500-level courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>504</td>
<td>Management Information Systems</td>
<td>4</td>
<td>Teleprocessing, data management, and computing systems and their applications to business administration and management.</td>
<td></td>
</tr>
<tr>
<td>527</td>
<td>Seminar: Computerized Decision Analysis</td>
<td>3</td>
<td>Prerequisite: CIS 527; corequisite: CIS 598. Latest research projects in computer information systems; application of research techniques and results to specific problems.</td>
<td></td>
</tr>
<tr>
<td>528</td>
<td>Seminar: Current Problems in Computer Information Systems</td>
<td>3</td>
<td>Prerequisite: CIS 527; corequisite: CIS 598. Latest research projects in computer information systems; application of research techniques and results to specific problems.</td>
<td></td>
</tr>
<tr>
<td>537</td>
<td>Seminar: Data Base Planning</td>
<td>3</td>
<td>Prerequisite: CIS 504; corequisite: CIS 598. Management responsibilities in data base planning; methods of planning for data bases; case studies in data base development.</td>
<td></td>
</tr>
<tr>
<td>560</td>
<td>Seminar: Microcomputer Networks</td>
<td>3</td>
<td>Prerequisites: CIS 262R, 504; corequisite: CIS 598. Advanced technology concepts and developments; computer hardware and associated operating systems and architecture; Distributed Information Systems (distributed data processing); networking, data communications related to networks.</td>
<td></td>
</tr>
<tr>
<td>567</td>
<td>Seminar: Business Expert Systems</td>
<td>3</td>
<td>Prerequisites: CIS 262R, 504; corequisite: CIS 598. Business expert systems and their role in reshaping traditional concepts of what organizations are, how they are managed, and how decisions are made.</td>
<td></td>
</tr>
<tr>
<td>581</td>
<td>Seminar: Health Care Information</td>
<td>3</td>
<td>Prerequisite: HS 540; corequisite: CIS 598. Introduction to computer hardware, software, telecommunications, and information systems management; emphasizes medical informatics and health care applications; includes advanced seminar presentations on current professional issues. Open only to MS—Health Care Management students.</td>
<td></td>
</tr>
<tr>
<td>584</td>
<td>Seminar: Controlling and Auditing Computer Systems</td>
<td>3</td>
<td>Corequisite: CIS 598. Controlling on-line interactive computer/data communication systems as a challenge to management and to internal and external auditors.</td>
<td></td>
</tr>
</tbody>
</table>

### Courses in Economics (ECON)

#### Undergraduate Courses

The following undergraduate courses are restricted to conditionally classified graduate students. They do not yield credit toward advanced degrees.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>311R</td>
<td>Managerial Economics</td>
<td>4</td>
<td>Prerequisites: ECON 201, 369R. Managerial application of economic theory; optimization techniques applied to consumer choice, firm behavior, pricing, and the study of market structure.</td>
<td></td>
</tr>
<tr>
<td>369R</td>
<td>Statistics for Business Administration</td>
<td>4</td>
<td>Prerequisites: Math 242. Linear statistical models and nonparametric methods emphasizing business applications, linear regression and correlation; analysis of variance; index numbers, time series and nonparametric statistics.</td>
<td></td>
</tr>
</tbody>
</table>

#### 400-level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser. ECON 405, 410, 499

### Graduate Courses

Classified graduate standing and approval by the School of Business and Economics Graduate Programs Office are required for admission to all 500-level courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>502</td>
<td>Economic Analysis and Business Operations</td>
<td>4</td>
<td>Tools, concepts, and factual data of the economist in solving specific business problems; case study applications of principles, analytical tools, and sources of economic information to practical business situations.</td>
<td></td>
</tr>
<tr>
<td>510</td>
<td>Seminar: Advanced Microeconomic Theory I</td>
<td>3-4</td>
<td>Prerequisite: ECON 410; corequisite: ECON 598. Advanced treatment of theories of household choice, production and cost, and output and input markets. Emphasis on static, partial-equilibrium analysis.</td>
<td></td>
</tr>
<tr>
<td>511</td>
<td>Seminar: Advanced Microeconomic Theory II</td>
<td>3</td>
<td>Prerequisite: ECON 510; corequisite: ECON 598. Continuation of ECON 510 with emphasis general equilibrium analysis, capital theory, and intertemporal resource allocation.</td>
<td></td>
</tr>
<tr>
<td>514</td>
<td>Seminar: Econometrics</td>
<td>3</td>
<td>Prerequisite: ECON 414; corequisite: ECON 598. Advanced treatment of statistics to analyze economic systems and test economic theories; emphasis on simultaneous equation models and time series models and their applications using econometric computer software.</td>
<td></td>
</tr>
</tbody>
</table>
520 Seminar: National Income and Employment Theory (3–4)
Prerequisite: ECON 403; corequisite: ECON 598. Seminar in aggregate income and employment theory; analysis of national income measurement and concepts, macroeconomic theory, fiscal policy.

521 Seminar: Monetary Theory and Policy (3–4)
Prerequisite: ECON 520; corequisite: ECON 598. Seminar in aggregate income and employment theory; monetary theory, role of money in macroeconomic theory, monetary policy.

526 Seminar: International Political Economy (4)
(also listed as POLS 526)
Prerequisite: ECON/POLS 426 or ECON 461 plus POLS 427. Research and analysis of the interactions of politics and economics in the international arena.

540 Seminar: Urban Economics (3)
Prerequisite: ECON 440; corequisite: ECON 598. Advanced treatment of economic models for analyzing urban-regional problems, including growth, land use, housing, transportation, income distribution. Emphasis on construction and use of models in policy evaluation.

560 Seminar: Economic Growth in Underdeveloped Areas (3)
Prerequisite: ECON 460; corequisite: ECON 598. Advanced treatment of theory and practice of national development from an economic perspective. Major theories of economic development; role of labor, capital, technology, foreign trade, and government policy.

561 Seminar: International Economics (3)
Prerequisite: ECON 461; corequisite: ECON 598. Advanced study and analysis of theories concerning economics of international exchange of goods, services, capital and government transfers; discussion of international institutions regulating trade and payments among nations.

571 Seminar: Economic History of U.S. (3)
Prerequisite: ECON 471; corequisite: ECON 598. Critical examination of selected topics in American economic history with emphasis on the empirical application of economic analysis.

590 Seminar: Contemporary Economic Analysis and Policy (3)
Corequisite: ECON 598. Selected analytical and policy issues underlying current developments in theoretical, empirical, and policy research; topics will reflect student interest and faculty specialty. May be repeated once as subject matter changes, with instructor consent.

598 Graduate Directed Study (1–4)
Investigation of an approved project leading to an oral and/or written report; project selected in conference with seminar professor before registration, and arrangements made for regular meetings during quarter. May be repeated for credit.

599A Thesis (1–2)
Prerequisite: Completion of required core courses, written approval of graduate adviser. Prior to completion, students will have completed a tentative outline of thesis, petitioned graduate adviser for appointment of a thesis committee, and submitted a tentative outline to thesis committee. Graded CR/NC.

599B Thesis (1–3)
Prerequisites: ECON 599A, written approval of thesis committee chair. Completion of thesis under direct supervision of thesis committee. Graded CR/NC.
glements made for regular meetings during quarter. May be repeated for credit.

Courses in Management (MGMT)

Undergraduate Courses

The following undergraduate courses are restricted to conditionally classified graduate students. They do not yield credit toward advanced degrees.

366R Managing Production Operations (4)
Prerequisite: ECON 366R. Problems, techniques of analysis, and recent developments that relate to production of goods and services. Analysis of problems in production control, demand forecasting, quality control, scheduling, and logistics.

367R Managing Organizational Behavior (4)
Analysis of manager and employee behavior in work situations. Managing interpersonal and intergroup processes and relationships in organizations.

368R Managing Modern Organizations (4)
Analysis of management principles and functions in complex organizations, utilizing organizational resources efficiently and effectively, understanding and interacting meaningfully with the external environment.

400-Level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing and approval by the School of Business and Economics Graduate Programs Office are required for admission to all 500-level courses.

501 Administrative Behavior and Systems Management (4)
Analysis of concepts and cases of managerial action in organizations, including decision making processes; organizations as open systems; methods for strategically aligning an organization's capabilities, structure, and environment.

560 Seminar: Strategic Planning (3)
Corequisite: MGMT 598. Development of comprehensive business strategy and long range plans with consideration for the social, economic, political, and technological environments; current strategic principles and practices; analysis of planning processes and systems.

561 Seminar: Organizing (3)
Corequisite: MGMT 598. Continued development of a management philosophy, with emphasis upon process of organization, allocation of responsibility and authority, and formation and behavior of industrial work groups. Critical analysis through case materials.

562 Seminar: Control (3)
Corequisite: MGMT 598. Continued development of a management philosophy with emphasis on procedure analysis automation, operations research, control of operations, and morale. Case materials, searching analysis of company operations.

564 Labor Relations Aspects of Health Care Delivery (2)
Prerequisite: NURS 562. Formal and informal relationships between health care facilities management and labor organizations; development of unions in health care industry; changing role of management; professional organizations; collective bargaining.

571 Seminar: Cases in Managing Health Care Policy (3)
Prerequisite: MGMT 501; corequisite: MGMT 598. Cases involving payment systems, regulation, competition, organizational integration, legal precedents, legislation, health insurance, prevention, managing for ethical response.

572 Seminar: Power and Politics in Organizations (3)
Corequisite: MGMT 598. Analysis of power and politics in organizations; sources determinants, strategies, impact on organizational decision making and effectiveness; implications for management. Case material and selected readings.

573 Seminar: Personnel Management (3)
Prerequisite: MGMT 473; corequisite: MGMT 598. Selected problem areas focusing on policies, techniques, and legal and social restrictions in areas of recruitment, selection, training, compensation, and occupational health and safety.

574 Seminar: Managing Employee Motivation and Work Behavior (3)
Corequisite: MGMT 598. Manager's function in leading, directing, motivating work behavior; research of cases of management processes relating to organizational behavior, growth, effectiveness.

575 Seminar: Managing the Management Career (3)
Corequisite: MGMT 598. Cases, principles, and practices for developing individual career models, directing organizational management resource and utilization activities, and serving as mentor/coach for maximum management utilization with organizations.

576 Seminar: Managing Health Care Organizations (3)
Corequisite: MGMT 598. Analysis of management processes and concepts as applied in health care organizations. Practical issues in organizing, controlling, and changing health care programs and services.

577 Seminar: International Business Management (3)
Corequisite: MGMT 598. Nature, environment, resources, strategies, and models of international business organization; analysis of managerial functions performed by international business managers; case studies pertaining to management in an international context.

578 Seminar: Operations Research Topics (3)
Corequisite: MGMT 598. Modern management techniques utilizing management science methods, including traditional manufacturing applications and contemporary extensions such as transportation and logistics, communication systems, service systems, health services, education, energy, urban affairs; review of recent literature.

580 Seminar: Operations Management in Health Care Settings (3)
Corequisite: MGMT 598. Theory, design, and audit of systems of scheduling, quality assessment, capacity, location, and other operations in medium size and large health care settings.

590 Seminar: Productivity Management (3)
Prerequisite: MGMT 501; corequisite: MGMT 598. Productivity perspectives, productivity measurement and evaluation methods, productivity improvement approaches, designing and executing successful productivity management program, cases in manufacturing and services sectors.

594 Policy Integration and Strategy (3)
Prerequisite: Business core requirements; corequisite: MGMT 598. Applying knowledge, theories, and techniques derived from previous courses, using integrative cases to formulate policies
under conditions of uncertainty. Course must be taken in final quarter of student's program.

595 Advanced Field Study (1-6)
Independent, supervised field experience in an applied area of business or health care management. Weekly tutorial sessions required for student-teacher synthesis of learning from course work and field experience.

598 Graduate Directed Study (1)
Investigation of an approved project leading to written report; project selected in conference with seminar professor, and arrangements made for regular meetings during quarter. May be repeated for credit.

Courses in Marketing (MKT)

Undergraduate Course

The following undergraduate course is restricted to conditionally classified graduate students. It does not yield credit toward advanced degrees.

364R Managerial Marketing (4)
Prerequisites: CIS 262R, ECON 369R. Marketing role in business and economy; changing customer wants and social needs; product/service development; distribution, promotion, and pricing strategies; managerial approach in planning, execution, and control of marketing programs.

Graduate Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

400-level Courses

459 Seminar: Marketing Communication (3)
Corequisite: MKT 598. Strategic promotional variables considered individually and in combination to communicate want-satisfying attributes of products and services in the most effective and efficient manner.

450 Seminar: Marketing Management (3)
Corequisite: MKT 598. Analysis of management of the enterprise, operating under conditions of uncertainty and designed to distribute want-satisfying goods and services.

453 Seminar: International Marketing (3)
Corequisite: MKT 598. Planning and implementing international marketing programs including those of multinational corporations; micro and macro marketing implications of economic development; consumer behavior, market research and strategy in other cultures.

454 Seminar: Consumer Behavior (3)
Corequisite: MKT 598. An interdisciplinary study that concentrates on how consumers behave in the marketplace; the objective is to understand, explain, and predict consumers' actions under a variety of market conditions.

455 Seminar: New Venture Marketing (3)
Corequisite: MKT 598. Strategies for introducing new ventures, products, services, and businesses from conception of the idea through market testing to introducing the product/service successfully into the marketplace.

546 Seminar: Marketing Research (3)
Prerequisites: ECON 309; MKT 304; OSBE 361R. Role of marketing research in making marketing decisions and planning and implementing marketing research projects; state-of-the-art marketing research tools and techniques and their applications.

547 Seminar: Retail Management (3)
Corequisite: MKT 598. Policies, problems, and opportunities in today's complex and dynamic retail environment; procedures for interrelating, planning, and implementing retail strategy involving marketing, management, and financial tools and theory.

550 Seminar: Transportation and Physical Distribution (3)
Corequisite: MKT 598. Role of transportation and distribution manager in reducing inventory control risks by planning, selecting, and supervising forms of transportation; current developments in handling and storage facilities and other distribution services.

Courses in Office Systems and Business Education (OSBE)

Undergraduate Course

The following undergraduate course is restricted to conditionally classified graduate students. It does not yield credit toward advanced degrees.

361R Techniques of Managerial Communication (4)

Graduate Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

400-level Courses

510 Seminar: Contemporary Issues and Trends in Business Education (3)
Prerequisite: OSBE 410B; corequisite: OSBE 598. Identification and analysis of significant current issues, trends, and problems affecting business education.

511 Seminar: Administration and Supervision in Business Education (3)
Prerequisite: OSBE 410B; corequisite: OSBE 598. Problems of administration and supervision of Business Education and Office Systems programs at various educational levels; development and supervision of training programs in business; program evaluation; student recruitment and retention; effective resource utilization.

512 Seminar: Research in Business Education (3)
Prerequisites: OSBE 401, 514; corequisite: OSBE 598. Study of research in business education; selection of a business education research problem; development, design, and completion of individual research study.
Seminar: Evaluation of Student Performance in Business Education (3)
Prerequisite: OSBE 410A; corequisite: OSBE 598. Principles of testing and evaluation; prognosis, aptitude, and achievement tests for specialized business careers; interpretation of business education tests; grading and evaluating business subjects, standardized tests and their construction.

Information Processing in Business Education (4)
Integrating information processing applications throughout the business curricula at secondary and community college levels; planning, purchasing, and evaluating microcomputer hardware and software in business education.

Seminar: Advanced Business Communication (3)
Prerequisite: OSBE 301 or 361R; corequisite: OSBE 598. Business administration aspects of communication; emphasis on written business communication in the environment of word processing systems and records systems administration; communication patterns in business organizations research.

Seminar: Administrative Office Systems (3)
Prerequisite: OSBE 401 or 361R; corequisite: OSBE 598. Theories, policies, and models of office administration; research and evaluation of current problems.

Graduate Directed Study (1)
Investigation of an approved project leading to written report; project selected in conference with seminar professor, and arrangements made for regular meetings during quarter. May be repeated for credit.
SCHOOL OF EDUCATION

Divisions within the School

Division of Administration and Counseling
Division of Curriculum and Instruction
Division of Educational Foundations and Interdivisional Studies
Division of Special Education
The School of Education is nationally accredited by the National Council for Accreditation of Teacher Education (NCATE). All credential programs are approved by the California Commission on Teacher Credentialing. The school offers programs leading to advanced degrees and to certification for specified fields of professional development in California public schools and other public and private agencies. Because the campus is located in the heart of metropolitan Los Angeles, School of Education programs reflect concern with the problems and challenges of urban education with particular emphasis on bilingual/crosscultural issues.

Degrees Offered

The School of Education offers the following Doctor of Philosophy, Master of Arts, and Master of Science degrees.

- Doctor of Philosophy degree in Special Education, offered jointly with the University of California, Los Angeles, provides preparation for leadership positions in higher education and the public schools as well as preparation for a career in scholarly research.
- Master of Arts degree in Teaching English to Speakers of Other Languages (TESOL) is intended to prepare students for teaching in a variety of situations, kindergarten through adult level, both in the U.S. and abroad. The program emphasizes language acquisition processes and the implications for second language teaching in preparing students for many teaching situations: English as a second language, as a foreign language, and for special purposes.
- Master of Arts degree in Educational Administration, with a choice among several areas of specialization, prepares educators with an understanding of American urban life, provides them with the research skills needed to direct, conduct, analyze, and evaluate research projects, and presents opportunities for in-depth study of administering, managing, coordinating, and directing public, private, and parochial schools.

The Master of Arts degree in Special Education is designed to prepare personnel to provide educational services to individuals who, because of physical, behavioral, and/or mental characteristics, require special instruction or services. Specialized preparation is offered for teachers of these exceptional individuals and for administrators and supervisors of special education programs.

- Instructional Technology option, prepares specialists for elementary and secondary institutions who combine skills in computer technology application with advanced video and multimedia techniques to enhance the learning experience of students at all levels.
- Library Science option, designed to prepare school library media specialists for library media centers at all educational levels, with emphasis on development of critical skills in this growing, rapidly changing and expanding field. Teachers study various aspects of the field which vary from research to one-on-one student contact to budget and purchasing to management, and more.
- Reading option, designed to provide proficiency in the specialized teaching of reading.
- Secondary Teaching option, designed to meet the challenge of educational excellence through the development of instructional leadership skills for secondary and postsecondary educators.

The Master of Arts degree in Educational Administration, with a choice among several areas of specialization, prepares educators with an understanding of American urban life, provides them with the research skills needed to direct, conduct, analyze, and evaluate research projects, and presents opportunities for in-depth study of administering, managing, coordinating, and directing public, private, and parochial schools.

Students entering graduate education programs must meet specific requirements set forth for each program in addition to university requirements for admission to graduate study.

Admission to Master's Degree and Credential Programs in Education

Students entering graduate programs in education must meet university requirements for admission to graduate study and additional requirements set forth for each program. Admission to the university does not automatically admit students to credential or

The Master of Arts degree in Urban Education is intended for students interested in the problems and challenges of education in metropolitan schools, and offers a number of options.
- Master of Science degree in Counseling, with options in Applied Behavior Analysis; Higher Education Counseling; Marriage, Family, and Child Counseling; Rehabilitation Counseling; School Counseling; School Counseling and Principalship; and School Psychology, designed to prepare graduates to function as professionals in these areas.

Students entering graduate education programs must meet specific requirements set forth for each program in addition to university requirements for admission to graduate study.
postbaccalaureate programs in the School of Education. Formal application is required for admission to a specific degree or credential program. Teaching credential application procedures are described in the undergraduate School of Education chapter.

**Postbaccalaureate Year**

State of California credential requirements include a fifth year of study completed after the baccalaureate. Students may elect to complete all or part of their professional requirements in the fifth year, pursue a master’s degree, or follow a planned course of study approved by their adviser. All students must plan an approved program with an adviser.

**General Information About Teaching Credentials**

All students who desire university recommendation for completion of the professional clear credential must be admitted to Cal State L.A. and must satisfy any writing or speech requirements required of all postbaccalaureate students. They must also apply for admission to the credential program. Students who completed directed teaching at Cal State L.A. and are eligible for the university-recommended preliminary credential and transfer students who possess a preliminary teaching credential will be admitted upon successful completion of application procedures to fifth year programs. In addition, transfer students who have not completed directed teaching will be required to complete admission procedures listed in the Undergraduate Programs section under Admission to Credential Programs.

**Definition of the Fifth Year for Professional Clear Teaching Credentials**

The fifth year, comprised of a minimum of 45 postbaccalaureate quarter units selected with adviser assistance, may consist of:

- completion of requirements for the preliminary credential,
- work toward another baccalaureate or an advanced credential, or
- a master’s degree, or
- a program of courses designed to improve the applicant’s teaching competencies.

**Residence requirement**

Applicants who possess a master’s degree from an accredited institution outside California or an advanced credential based on a full fifth year of postbaccalaureate study (45 quarter units) are not subject to residence requirements for university recommendation. Applicants with a master’s degree or an advanced credential from a California institution are referred to their parent institution for recommendation. All other applicants must complete a minimum of 16 quarter units in residence at Cal State L.A.

**Criteria for University Recommendation for Professional Clear Credential**

- Completion of application procedures for admission to the university and to fifth year credential program.
- Completion of an approved fifth year program.
- Satisfaction of all legal and university credential requirements.

**Procedures**

- Apply for admission to Cal State L.A. and to the School of Education credential programs
- Plan a fifth year program with an adviser.

The program is checked by a credential analyst for satisfaction of criteria, applicability of transfer work, etc. The program plan is filed and used for verification of credential requirements.

Students receive university recommendation following application and verification of completion of all requirements for the clear credential.

**Restriction on Credit Earned in Variable Unit Courses**

All School of Education master’s degree programs are subject to the following credit restrictions:

- Limit of 12 units from 499, 597, and 598 on programs without a thesis or project.
- Limit of 15 units from 499, 597, 598, and 599 on programs with a thesis or project.

**INTERDISCIPLINARY PROGRAM**

Office of the Associate Dean for Instruction and Graduate Studies
King Hall D2070
Phone: (213) 343-4303

**Master of Arts Degree in Education: Option in Area of Special Interest**

The Master of Arts degree in Education with an Option in Area of Special Interest provides breadth and flexibility in program planning for students who wish to study an area of education not specifically covered in one of the existing degree options. Students select appropriate School of Education courses and others in any department that develops knowledge related to their interests. Illustrative areas include educational media, early childhood education, teaching English as a second language, and adult education. Additional information and advisement are available from the associate dean, School of Education, King Hall D2070. The faculty for this program is provided by the entire School of Education.

**Admission to the Program**

In addition to university requirements for admission to graduate study, applicants must have two years of teaching experience or 33 units of approved upper division courses in education and related areas plus a minimum 2.75 grade point average in the last 90 quarter units attempted and must meet school-established proficiency standards and receive the associate dean’s approval.

**Requirements for the Degree (45 units)**

A total of 45 units is required, with at least 23 in 500-level courses. All students must complete a 7-unit thesis or project structured around the area of special interest. There is a limit on credit that may be earned in variable-unit courses. See School of Education course offerings at the end of this chapter.

**Required Course (4 units):**

EDFN 500 Evaluation of Educational Research (4) or EDFN 509 Methods of Research in Education (4)

**Electives (12–25 units):**

Select education courses with adviser approval to meet individual needs. Courses used to satisfy teaching credential requirements may not be used to satisfy this requirement.

**Electives Outside Education (9–22 units):**

Select courses outside the field of education, with adviser approval.

**Thesis or Project (7 units):**

EDFN 599A Thesis or Project Planning (2) plus EDFN 599B Thesis or Project (5)
ADMINISTRATION AND COUNSELING

School of Education

DIVISION OFFICE
King Hall C1065
Phone: (213) 343-4250

Program advisement provided for:
- Administration and supervision programs for master's degrees and credential
- Counseling programs for master's degree, credentials, and state licenses

Courses offered in:
- Counseling (COUN)
- Educational Administration (EDAD)

Master of Arts Degree in Educational Administration

Admission to the Program
- In addition to general university requirements for admission to graduate study, applicants to a master's degree or credential program must meet the following requirements:
  - Completion of application to the division and assignment of permanent adviser.
  - A 2.75 grade point average in the last 90 quarter units attempted.
  - Completion of writing examinations and required inventories.
  - Meeting of admission standards developed by the division.
  - Counseling interviews with division chair and permanent adviser.
  - A program of study approved by the permanent adviser and division chair.

Requirements for the Degree (45-52 units)
A minimum of 45 units is required, including at least 23 units in 500-level courses and a comprehensive examination. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Core (31 units):
EDAD 506 Leadership in Education (3)
EDAD 507 Educational Planning and Decision Making Models (3)
EDAD 509 Basic School Law (3)
EDAD 510 School Finance (3)
EDAD 515 Social and Political Forces Affecting Education (3)
EDAD 517 Educational Staff Development and Evaluation (3)
EDAD 518 Program Management, Development and Evaluation (3)
* EDAD 554 Seminar: Research and Development in Educational Administration (3)
* EDAD 567 Seminar: Current Issues in Educational Administration (3)
EDFN 553 Educational Research and Decision Making (4)
* to be taken after completion of all other core courses

Areas of Specialization (minimum 14 units)
Select one of following specializations:
- Administration of Special Education (14 units)
  Prerequisite to this specialization is completion of a teaching credential authorizing service in one or more special education programs.
  Required Courses (7 units):
  EDAD 548
  Electives (7 units):
- School Business Administration (15-21 units)
  Required Courses (12-18 units):
  EDAD 533, 543, 584ABCD
  Electives (select 0-4 units from following):
  ACCT 520, 521, 524
  EDAD 526, 527, 539
  MGMT 573
  POLS 563
- Supervisor of Instructional Programs (14 units)
  Required Course (3 units):
  EDAD 548
  Electives (11 units)
- The Principalship (14 units)
  Required Courses (6 units):
  EDAD 527
  Select one from following: EDAD 572, 575, 578
  Electives (8 units)
  Comprehensive Examination (0 units)
  EDAD 596 Comprehensive Examination (0)

Students should expect to take the comprehensive examination (EDAD 596) the quarter they complete all course work on their program and must comply with division and requirements.

Master of Science Degree in Counseling
The Master of Science degree in Counseling includes the following options:
- Applied Behavior Analysis
- Higher Education Counseling
- Marriage, Family, and Child Counseling
- Rehabilitation Counseling
- School Counseling
- School Psychology

Admission to the Program
In addition to university requirements for admission to graduate study, students must have a 2.75 grade point average in the last 90 quarter units attempted, submit the divisional application form, take additional examinations required by the division, and be interviewed by the divisional screening committee.

Applications are considered twice a year, and the dates may vary by option. Students should inquire at the division office for specific schedules.
Prior to admission to the program, graduate students are encouraged to obtain preliminary advisement and begin taking courses, not to exceed 13 units. Upon acceptance, each student is assigned a faculty adviser. Each student's degree program is planned with sufficient flexibility to permit consideration of individual needs and interests.

Requirements for the Degree (70–112 units)

A total of 70–112 units is required, depending on option selected, with at least half in 500-level courses. The program consists of a required core, an option, related field and clinical study, and a comprehensive examination or thesis. Students must demonstrate proficiency in statistics and may do so by completing EDFN 452. There is a limit on credit that may be earned in variable-unit courses. See Restriction on Credit Earned in Variable Unit Courses earlier in this chapter.

Before students may take courses to meet the field work requirement, they must be approved candidates and must be recommended by their adviser.

Most students are expected to take the comprehensive examination (COUN 596). Students who wish to write a thesis must demonstrate high academic ability as needed for significant independent study and must be recommended by faculty members on the basis of superior facility in statistics and research methods. Students planning to pursue doctoral studies are encouraged to undertake the thesis.

Required Core (25 units):

- COUN 405A Theoretical and Developmental Aspects of Behavior (4)
- COUN 428 Measurement Issues in Counseling (4)
- COUN 503 Sociological and Cultural Factors in Counseling (4)
- COUN 505 Practicum: Counseling (3)
- Self-Development and Special Interest (6 units):
  - Select from following with adviser approval.
  - COUN 405B Theoretical and Developmental Aspects of Behavior (4)
  - COUN 406 Behavioral Counseling and Self-Management (4)
  - COUN 445 Developmental Self-Exploration (2)
  - COUN 475AB Counseling in the Workplace (3, 3)
  - COUN 490 Problems in Guidance (1-5)
  - COUN 504 Advanced Topical Study in Application of Behavior Analysis to Education (4)
  - COUN 507 Individual Clinical Counseling (3)
  - COUN 590 Special Topics in Counselor Education (1-4)
  - COUN 597 Graduate Research (1-4)
  - ESDP 510 Resource Specialist in Special Education (4)

Unless required in option

Appropriate substitutions may be made in special instances with adviser recommendation and division chair approval.

Options

Select one of following options.

- Option in Applied Behavior Analysis (45 units)
  - This program prepares students for the qualifying examination for national certification in behavior analysis, administered by the Association for Behavior Analysis (ABA). The program is designed also, for graduate students who plan to work as behavior analysts, specialists, or consultants, and for those who elect to specialize in the behavioral area for doctoral training.
  - Required courses (45 units):
    - COUN 406, 501, 502, 504, 591, 593

PSY 417, 421, 428, 500, 528

- Option in Higher Education Counseling (49–55 units)
  - The Higher Education Counseling option is designed to train students to work as student personnel specialists. This program is accredited by the Council on Counseling and Related Educational Programs (CACREP) and prepares students for the certification examination administered by the National Board of Certified Counselors. Although emphasis is placed on the counseling function, attention is given also to other student services customarily offered in two- and four-year colleges and universities.
  - Required courses (49–55 units)
    - COUN 405B, 406, 448, 506, 507, 510, 516, 517, 532, 581, 586C (for 7–13 units), 587

- Option in Marriage, Family, and Child Counseling (54–61 units)
  - This option is designed to fulfill recently-enacted state requirements for licensure in Marriage, Family, and Child Counseling as outlined in the Business and Professions Code, Section 4980.37. Students fulfill degree requirements by completing the required 25-unit core, plus option requirements of 54-61 units, followed by a thesis or comprehensive examination.
  - Prerequisites (12 units):
    - EDFN 452, PSY 410AB (or equivalents arranged with adviser)
  - Required Courses (54–61 units):
    - COUN 403 The Psychosocial Dynamics of Child Maltreatment and Family Violence (4)
    - COUN 405B Theoretical and Developmental Aspects of Behavior (4)
    - COUN 450 Counseling Theories (3) or HS 456 Health Studies on Alcohol, Narcotics, Nutrition, and Tobacco (4) or PSY 436B Counseling and Psychotherapy: Theories, Methods, and Issues (4)
    - COUN 460 Laws Relating to the Child and Family (4) or PSY 464 Psychology and the Law (4)
    - COUN 501 Behavior Analysis in School, Home, and Agency Settings (4)
    - COUN 506 Individual Counseling Strategies (4)
    - COUN 507 Individual Clinical Counseling (3)
    - COUN 520 Introduction to Family Evaluation and Counseling (4)
    - COUN 521 Advanced Family and Marriage Counseling (4)
    - COUN 522 Family Counseling with Children (4)
    - COUN 523 Family Counseling Laboratory (3)
    - COUN 552 Counseling and Human Sexuality (4) or PSY 542 Human Sexuality: Dysfunction and Treatment (4) or SOC 421 Social Sources of Human Sexuality (4)
    - COUN 589 Site Practicum in Marriage, Family, and Child Counseling (9–15)

- Option in Rehabilitation Counseling (54 units)
  - Rehabilitation counselors are concerned with the vocational and personal potentialities of individuals with disabilities (psychological, social, medical, and/or vocational) and the problems involved in adjusting to them. Counselors must be knowledgeable in each of these areas in order to carry on their main function of helping their clients achieve a satisfactory work adjustment. The program is accredited by the Council on Rehabilitation Education.
  - Required courses (54 units):
    - COUN 405B, 442, 448, 501, 506, 540AB, 541, 542AB, 588 (for 15 units)
**Option in School Counseling (48-54 units)**

This option is designed for those who plan to perform pupil personnel services in elementary or secondary schools. Students who earn the master’s degree with this option also qualify for the Pupil Personnel Services credential with advanced specialization in School Counseling and Child Welfare and Attendance Services. The program is accredited by the Council on Counseling and Related Educational Programs (CACREP) and prepares students for the certification exam administered by the National Board of Certified Counselors.

**Prerequisites (8 units):**
- EDFN 452, EDSP 400

**Required Courses (48-54 units):**
- COUN 406, 447, 460, 501, 502, 506 or 522, 516, 517, 581, 583, 586S

Candidates with three years of public school counseling or teaching experience are required to complete 360 clock hours (9 units) of COUN 586. Other candidates are required to complete 600 clock hours (15 units). Students may obtain an elementary or secondary school emphasis for the option with careful course selection and planning with their university advisers.

**Option in School Psychology (87 units)**

School psychologists focus on the psychoeducational development of individuals from birth to age 21, their abilities and potentialities, and emotional and cultural factors that influence the learning process. Students who earn the master’s degree with this option also qualify for the Pupil Personnel Services credential with advanced specializations in School Psychology and Child Welfare and Attendance Services.

**Prerequisites (12 units):**
- EDFN 452, EDSP 400, PSY 410A

**Required Courses (87 units):**
- COUN 406, 450, 460, 501, 502, 522, 531AB, 532, 533, 534, 535, 581, 585, 586P (for 30 units), 593

**Comprehensive Examination or Thesis or Project (0, 7 units):**
- COUN 596 Comprehensive Examination (0) or
- EDFN 599A Thesis or Project Planning (2) plus
- EDFN 599B Thesis or Project (5)

Students who select the comprehensive examination (COUN 596) must be advanced to candidacy and must comply with school and division requirements.

An internship manual, which contains guidelines, procedures, and other information, is available for purchase at the campus bookstore.

**PILOT PROGRAM COMBINING:**

**Master of Science Degree in Counseling:**

**Option in School Counseling and Principalship, Pupil Personnel Services Credential, and Preliminary Administrative Services Credential**

This combined program is designed for school counselors and other individuals who wish to earn the Master of Science degree in Counseling (with an option in School Counseling and Principalship), along with the Pupil Personnel Services credential with Advanced Specializations in School Counseling and Child Welfare and Attendance Services and the Preliminary Administrative Services credential. Students who select this program complete a core separate from that followed for the other five options in the M.S. degree in Counseling. The complete combined program appears below.

**Requirements for the Degree and Credentials (85 units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COUN 405A</td>
<td>Theoretical and Developmental Aspects of Behavior (4)</td>
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<tr>
<td>COUN 406</td>
<td>Behavioral Counseling and Self-Management (4)</td>
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<tr>
<td>COUN 428</td>
<td>Measurement Issues in Counseling (4)</td>
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<tr>
<td>COUN 447</td>
<td>Career Education and Guidance in Schools (4)</td>
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<tr>
<td>COUN 501</td>
<td>Behavior Analysis in School, Home, and Agency Settings (4)</td>
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<tr>
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<td>Advanced Behavioral Contingency Management in Schools (4)</td>
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<td>Individual Counseling Strategies (4)</td>
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<td>COUN 516</td>
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<td>Supervised Field Experience in School Counseling (5)</td>
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<tr>
<td>EDAD 506</td>
<td>Leadership in Education (3)</td>
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<tr>
<td>EDAD 507</td>
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**Preliminary Administrative Services Credential**

Regulations, policies, and procedures governing the program for the Preliminary Administrative Services credential, available from the division office, were developed in accordance with guidelines developed by the Commission on Teacher Credentialing. The program is based on a set of competencies necessary for successful performance as a California school administrator. The credential licenses students for all administrative and supervisory services, prekindergarten through grade 12, in California public schools. This credential is valid for 5 years or for 3 years after the candidate's first employment under the credential, whichever comes last.

**Minimum Credential Requirements (45 units)**

The following requirements are subject to change without notice. Students should consult the division for current requirements. Minimum requirements for issuance of the Preliminary Administrative Services credential include:

- Forty-five units of acceptable postbaccalaureate course work as listed below.
- A master's degree.
- Completion of the required core and an area of specialization.
- Satisfaction of the California state requirement of training in special education (mainstreaming) (EDSP 501).
The purpose of the program is to provide education and training for new and aspiring administrators. The program is based on a set of competencies considered necessary for successful performance as a California school administrator. The credential license holders to perform all administrative and supervisory services in grades prekindergarten–12 in California public or private schools.

Prerequisites:
- A master’s degree;
- A Preliminary or Clear Administrative Services credential issued under present or prior regulations;
- Passing score on UNIV 400, the Writing Proficiency Examination (WPPE);
- Passing score on California Basic Educational Skills Test (CBEST); and
- Completion of written examinations and inventories required by the division.

Minimum Credential Requirements (36 units)
- Thirty-six units of postbaccalaureate course work as listed below, not more than 18 units of which is devoted to practicum courses;
- Satisfaction of all program competencies;
- Completion of written examinations and inventories required by the division;
- A minimum of two years of successful, full-time school administrative experience in the public schools or in private schools of equivalent status;
- Completion of at least one-half of the program while employed in a full-time school administrative position; and
- Written verification from your employing school district, or an official of the appropriate county office of education, of successful completion of your program plan.

Required Core (28–29 units):

EDAD 506 Leadership in Education (3)
EDAD 507 Educational Planning and Decision Making Models (3)
EDAD 509 Basic School Law (3)
EDAD 510 School Finance (3)
EDAD 515 Social and Political Forces Affecting Education (3) or
EDAD 537 Educational Issues in Metropolitan Areas (4)
EDAD 517 Educational Staff Development and Evaluation (3)
EDAD 518 Program Management, Development and Evaluation (3)
EDFN 553 Educational Research and Decision Making (4)
EDSP 501 Problems and Practices in Special Education (3)

Areas of Specialization (17 units)
Select one of the following specializations:
- Administration of Special Education (17 units)

Preliminary to this specialization is completion of a teaching credential authorizing service in one or more special education programs.

Required Courses (14 units):
EDAD 548 (3) EDAD 581ABCD (2, 2, 2)
EDP 503, 585 (3, 4)

Electives (3 units):
- Supervisor of Instructional Programs (17 units)

Required Courses (9 units):
EDAD 548 (3) EDAD 581ABCD (2, 2, 2)

Electives (8 units):
- The Principalship (17 units)

Required Courses (12 units):
EDAD 527 (3) EDAD 581ABCD (2, 2, 2)

Select one from following:
EDAD 572, 575, 578 (for 3 units)

Electives (5 units)

Professional Administrative Services Credential

The purpose of the program is to provide education and training for new and aspiring administrators. The program is based on a set of competencies considered necessary for successful performance as a California school administrator. The credential license holders to perform all administrative and supervisory services in grades prekindergarten–12 in California public or private schools.

Prerequisites:
- Passing score on the California Basic Educational Skills Test (CBEST).
- Three years of successful classroom teaching experience.
- Completion of written examinations and inventories required by the division.

Required Core (28–29 units):

EDAD 506 Leadership in Education (3)
EDAD 507 Educational Planning and Decision Making Models (3)
EDAD 509 Basic School Law (3)
EDAD 510 School Finance (3)
EDAD 515 Social and Political Forces Affecting Education (3) or
EDAD 537 Educational Issues in Metropolitan Areas (4)
EDAD 517 Educational Staff Development and Evaluation (3)
EDAD 518 Program Management, Development and Evaluation (3)
EDFN 553 Educational Research and Decision Making (4)
EDSP 501 Problems and Practices in Special Education (3)

Electives (30 units)
EDAD 533 Legal Research in Educational Administration (3) and/or
EDAD 533P Practicum: Legal Research in Educational Administration (3)
EDAD 539 Educational Personnel Administration (3) and/or
EDAD 539P Practicum: Educational Personnel Administration (3)
EDAD 542 Collective Bargaining in Education (3) and/or
EDAD 542P Practicum: Collective Bargaining in Education (3)
EDAD 543 Seminar: School Business and Facility Management (3) and/or
EDAD 543P Practicum: School Business and Facility Management (3)
EDAD 545 Management Information Systems in Educational Administration (3) and/or
EDAD 545P Practicum: Management Information Systems in Educational Administration (3)
EDAD 555 Advanced Organizational Theory and Development of Schools (3) and/or
EDAD 555P Practicum: Advanced Organizational Theory and Development of Schools (3)
EDAD 595 Professional Development in Educational Administration (3)

Pupil Personnel Services Credential

(with Advanced Specializations in School Counseling and Child Welfare and Attendance Services)

The requirements for the Pupil Personnel Services credential with Advanced Specializations in School Counseling and Child Welfare and Attendance Services may be completed as part of the M.S. degree in Counseling, option in School Counseling. Students may be recommended for the credential upon the completion of the following program with grades of A or B in all courses.

- Completion of written examinations and inventories required by the division.
Prerequisites (8 units)
EDFN 452 Statistics in Education (4)
EDSP 400 Education and Psychology of Exceptional Individuals (4)

Course Work with Competencies Met (63–69 units)
COUN 405A Theoretical and Developmental Aspects of Behavior (4)
COUN 406 Behavioral Counseling and Self-Management (4)
COUN 428 Measurement Issues in Counseling (4)
COUN 447 Career Education and Guidance in Schools (4)
COUN 450 Career Education and Guidance in Schools (4)
COUN 501 Behavior Analysis in School, Home, and Agency Settings (4)
COUN 502 Advanced Behavioral Contingency Management in Schools (4)
COUN 503 Sociological and Cultural Factors in Counseling (4)
COUN 504 Advanced Topical Study in Application of Behavior Analysis to Education (4)
COUN 506 Individual Counseling Strategies (4) or (4)
COUN 516 Group Counseling (4)
COUN 517 Group Counseling Practicum (3)
COUN 581 Seminar: Pupil Personnel Services (4)
COUN 583 Preventive Counseling (4)
COUN 586S Supervised Field Experience in School Counseling (9-15)

In addition to demonstrating competence in course work and internship, students are required to pass the California Basic Educational Skills Test (CBEST) and either pass an oral examination covering the School Counseling competencies or complete requirements for the master's degree in Counseling.

Counselor Internship Program
This program provides opportunities for counseling internship experiences in special needs areas as identified by cooperating school districts. Individuals perform counseling functions with a counselor internship credential under close university and school site supervision while completing course requirements for the Pupil Personnel Services credential. Those interested should contact the division office for details about the program.

Continued Professional Development
Competence in the helping professions requires continuous efforts at self-improvement and development of skills. To assist practicing counselors, school psychologists, and other educators in improving their professional skills, the Counselor Education faculty has developed the following programs of continued professional development leading toward certificates.

The programs provide an opportunity for educational practitioners to meet with their colleagues to keep abreast of innovative professional developments and to experience stimuli for continued personal and professional growth.

Certificate Program in Advanced Study in Central Office Administration
A minimum of 30 units of acceptable graduate course work with a minimum B (3.0) average is required for this credit certificate program. Prerequisite to admission to the program is demonstrated required competence in one of the 45-unit specializations. Refer to the Graduate Study chapter of this catalog for general regulations governing all certificate programs.

Requirements for the Certificate (30 units)
Required Courses (24 units):
EDAD 526 Principles and Practices of Leadership (3)
EDAD 533 Legal Research in Educational Administration (3)
EDAD 539 Educational Personnel Administration (3)
EDAD 542 Collective Bargaining in Education (3)
EDAD 543 Seminar: School Business and Facility Management (3)
EDAD 545 Management Information Systems in Educational Administration (3)
EDAD 548 Seminar: Supervision of Instructional Programs (3)
EDAD 594A, C, or D Field Work in Central Office Administration and Supervision (3)
Electives (6 units):

Certificate Program in Applied Behavior Analysis in Educational Settings
This credit certificate program provides practitioners an opportunity to develop skills for implementing and evaluating management, motivation, consultation, and teaching. The certificate is awarded upon completion of the following courses in counselor education (16 units) with a minimum B (3.0) average. Refer to the Graduate Study chapter of this catalog for general regulations governing all certificate programs.

Requirements for the Certificate (16 units)
COUN 406 Behavioral Counseling and Self-Management (4)
COUN 501 Behavior Analysis in School, Home, and Agency Settings (4)
COUN 502 Advanced Behavioral Contingency Management in Schools (4)
COUN 504 Advanced Topical Study in Application of Behavior Analysis to Education (4)

Certificate Program in Developmental Counseling
This program provides practitioners experience in developing and implementing programs of psychological education. The certificate is awarded upon completion of the following courses (16 units) with a minimum B (3.0) average. Refer to the Graduate Study chapter of this catalog for general regulations governing all certificate programs.

Requirements for the Certificate (16 units)
COUN 492 Future Studies: Educational Implications of the Future (4)
COUN 582 Seminar: Counseling (4)
EDCI 526 Principles and Practices of Leadership (4)
COUN/EDCI 528 Creative Behavior: Development and Facilitation (4)

Certificate Program in Professional Employee Counseling
This credit certificate program is designed to supplement the training of professional counselors by providing specialized information and skills specific to counseling and related programs offered by employers and unions for employees in business, industry, and government.

Admission to the Program
Applicants must have a qualifying degree (or be working toward one) which is a master's or higher degree in Counseling or a related discipline.** This degree must either be awarded by a campus whose program is accredited by the Council on the Accreditation of Counseling and Related Educational Programs (CACREP), the
Council on Rehabilitation Education (CORE), or the Academy of Certified Social Workers or based on a program of study including or supplemented by all of the following:

• Supervised practice of at least 600 clock hours.
• Course work in human psychological development in late adolescence and adulthood, basic helping relationship skills, the world of work, intervention strategies in helping relationships, and basic principles of behavioral research.

Examples of related disciplines include clinical, counseling, industrial, and school psychology and social work.

Students who do not hold a qualifying degree may be admitted to the program while pursuing such a degree. These students will receive the certificate when they have completed requirements for both the degree and the certificate with a minimum B (3.0) grade point average in each program.

The faculty committee established to oversee this certificate program will evaluate all applicants on the basis of their academic preparation, employment experience, a written application, official transcripts of transferred course work, letters of reference, and an individual interview.

Requirements for the Certificate (35-36 units)

The program consists of 35-36 units of course work, 28 in required courses and 7-8 in electives. Completion of all course work with a minimum B (3.0) grade point average is required. Refer to the Graduate and Postbaccalaureate Study chapter of this catalog for general regulations governing all graduate level certificate programs.

Required Courses (28 units):

COUN 475AB Counseling in the Work Place (G, 3)

COUN 503 Sociological and Cultural Factors in Counseling (4)
COUN 505 Practicum: Counseling (3)
COUN 588 Supervised Practice in Rehabilitation Counseling (8)
HS 466 Strategies for Substance Abuse Programs (2)
HS 467 Drinking Problems and Alcoholism (3)
HS 468 Problems in Controlled Substances (3)

Electives (select 7-8 units from following):

HS 469 MGMT 469, 473**, 501, 573**
MKT 443**

** consult catalog course listings for course prerequisites

Relevant special topics courses may be substituted with approval of certificate program faculty committee.

The Guidance Clinic

The Guidance Clinic is one of the Associated Clinics, and is located in King Hall C1067. It is an instructional laboratory that provides both training for counselors and counseling services to the community. Students working toward a master's degree or credential in counseling serve as student clinicians.

Internship Program

This program provides opportunities for school districts to cooperate with the division in providing internship experiences for selected individuals, under the provisions of the Ryan Act (Education Code, beginning with Section 13101), or independently.

The program offers opportunities for high potential individuals to perform administrative/supervisory functions under close university supervision while completing course requirements for the Preliminary Administrative Services credential. Persons interested in specific details of the program should contact the division office.
CURRICULUM AND INSTRUCTION

School of Education

DIVISION OFFICE
King Hall C2097
Phone: (213) 343-4350

Program advisement provided for:
• M.A. degree options:
  • Elementary Teaching
  • Reading
  • Secondary teaching
• Multiple Subject credential
  (including bilingual emphasis and internship option)
• Reading/Language Arts Specialist
• Single Subject Credential (including internship option)

Courses offered in:
• Curriculum and Instruction (EDCI)
• Elementary Education (EDEL)
• Secondary Education (EDSE)

Master of Arts Degree in Education: Option in Elementary Teaching

Admission to the Program
In addition to university requirements for admission to graduate study, applicants must have a California credential or a general elementary or kindergarten-primary credential issued by any state.

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 23 in 500-level courses. A comprehensive examination is required. Students who intend to register in courses they wish to apply on a master's degree should consult an adviser prior to registration. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Core (12 units):
EDCI 560  Principles and Practices of Curriculum Development (4)
EDEL 589  Seminar: Elementary Education (4)
EDFN 500  Evaluation of Educational Research (4)

Area of Concentration (33 units)
Select one area of concentration.

• Bilingual/Multicultural Education in the Elementary Classroom (33 units)
  Select 4 units from following:
  EDEL 411, 421, 431, 434AB, 441, 451
  EDFN 562
  Select 8 units from following:
  EDEL 511, 521, 531, 541, 551
  Select 12 units from following:
  EDCI 412, 449, 453, 455  EDEL 413, 423
  EDFN 536, 539, 560
  Electives (select 9 units with adviser approval)

• Curriculum and Instruction in the Urban Elementary School (33 units)
  Required (8 units):
  EDEL 466, 590
  Select 8 units from following:
  EDEL 511, 521, 531, 541, 551
  Select 8 units from following:
  EDCI 412, 536, 539  EDEL 423
  EDFN 525, 537
  Electives (select 9 units with adviser approval)

• Early Childhood Education (33 units)
  Select 16 units from following:
  EDEL 511, 521, 531, 541, 560, 563
  EDFN 530  CHDV 505
  Select 11 units from following:
  EDCI 412
  EDEL 423, 424, 432, 461-464, 465
  EDFN 562
  Electives (select 6 units with adviser approval)

• Elementary Curriculum and Instruction (33 units)
  Select 12 units from following:
  EDCI 412
  EDEL 411, 421, 431, 441, 451
  EDFN 562
  Select 8 units from following (Research):
  EDEL 511, 521, 531, 541, 551
  Select 4 units from following:
  EDFN 510, 525
  Electives (select 9 units with adviser approval)

• Humanistic Education in the Elementary School (33 units)
  Required (4 units):
  EDEL 592
  Select 8 units from following:
  COUN/EDCI 528
  EDEL 590  EDCI 526
  EDEL 590
  Select 7–8 units from following:
  EDEL 421, 424, 441, 451, 495
  Select 4 units from following:
  EDEL 521, 531, 541, 551
  Electives (select 9–10 units with adviser approval)

• Mainstreaming in the Elementary Classroom (33 units)
  Required (23 units):
  COUN 501
  EDEL 406, 407, 408, 434AB, 590
  EDSP 400, 550
Restrict courses (10 units):
The following are recommended:
EDAD 509
EDEL 511, 521, 531, 541, 551, 590
EDIT 450AB, 451
EDSP 401, 402, 540
- Mathematics Education (33 units)
  Required (12 units):
  EDEL 431, 432, 531.
  Select 13 units from following:
  EDEL 433ABCD, 435, 480, 535, 580
  EDIT 481
Suggested Electives (8 units):
  EDEL 526
  EDEL 451, 551, 590
Other electives: Select with adviser approval.
- Reading and Language Arts in the 
  Elementary Classroom (33 units)
Required Core (16-17 units):
  Language Arts (8 units):
  EDEL 421, 521
  Reading (8-9 units):
  EDCI 522
  EDEL 411, 511
  Select 8-12 units from following:
  EDCI 412, 449, 455
  EDEL 423, 434A
EDFN 582
Electives (4-9 units): Select with adviser approval.
  Comprehensive Examination (0 units):
  EDEL 596 Comprehensive Examination (0)
Students should expect to take the comprehensive examination 
  (EDEL 596) the quarter they complete all course work on their 
  program and must comply with school and division requirements.

Master of Arts Degree in Education:
Option in Reading
The Master of Arts degree in Education, option in Reading, satisfies 
  content requirements established by the International Reading 
  Association for reading specialists.

Admission to the Program
In addition to university requirements for admission to classified 
  graduate standing, students must have a 2.75 grade point average 
  in their last 90 quarter units attempted; must have a teaching 
  credential, and must have completed a basic course in reading 
  (EDEL 400 or EDSE 423 or equivalent).

  Two years of teaching experience are recommended for degree 
  candidates; credential candidates must verify completion of inten-
  tive (minimum two years at the time the credential is granted) 
  and extensive (minimum two levels with two socioeconomic/ethnic 
  groups) classroom teaching experience.

Requirements for the Degree (45 units)
A minimum of 45 units is required, with at least 23 in 500-level 
  courses. All students must pass a comprehensive examination or 
  submit a thesis or project. There is a limit on credit that may 
  be earned in variable unit courses. See Restriction on Credit Earned 
  in Variable Unit Courses earlier in this chapter.

Required Courses (29-31 units):
EDCI 513 Reading as a Cognitive Process (4)
EDCI 522 Diagnostic and Remedial Reading/Language 
  Procedures (4)
EDCI 524 Diagnostic Procedures for Reading/Language Arts 
  Clinicians (5)
  #EDCI 540 Application of Therapeutic Procedures in 
  Reading/Language Arts (2)
EDCI 541 Field Work in Reading/Language Arts (4)
EDEL 511 Seminar: Research in Teaching Elementary 
  School Reading (4) or 
EDEL 521 Seminar: Research in Teaching Elementary School 
  Language Arts (4)
EDFN 500 Evaluation of Educational Research (4)
  * repeat to total of 4-6 units
Electives (select 3-4 units from following):
  COMD 400
  EDCI 527EDEL 427, 525
  EDSP 400, 420, 462, 465, 524
Additional Electives (select 3-13 units from following with 
  adviser approval):
  COMD 450, 456, 461
  EDCI 538, 549
  ENGL 400 or 401, 406, 430, 432
  EDFN 409, 452, 510, 530, 560
  EDFN 500 Evaluation of Educational Research (4)
  EDFN 599A Thesis or Project Planning (2) plus 
  EDFN 599B Thesis or Project (5)

Students who select the comprehensive examination (EDCI 596) should 
  expect to take it in the quarter in which they complete all course 
  work on their program and must comply with school and division 
  requirements. With careful planning, students can earn the 
  Reading/Language Arts Specialist credential concurrently with the 
  Master of Arts in Education, Reading option. Consult the Reading 
  Program coordinator for more information.

Master of Arts Degree in Education:
Option in Secondary Teaching
The Master of Arts degree: Option in Secondary Teaching is 
  designed to provide a comprehensive background in the basic 
  educational and educationally related fields.

Admission to the Program
In addition to university requirements for admission to graduate 
  study, applicants must possess a 2.75 grade point average in the 
  last 90 quarter units attempted.

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 23 in 500-level courses 
  A comprehensive examination, or a thesis or project, pertaining to 
  the area of concentration is required. Before receiving the M.A. 
  degree, students must have earned a credential and possess 
  teaching experience approved by the Division of Curriculum and 
  Instruction. There is a limit on credit that may be earned in 
  variable-unit courses. See Restriction on Credit Earned in Variable 
  Unit Courses earlier in this chapter.

Required Courses (16 units):
EDCI 580 Principles and Practices of Curriculum 
  Development (4)
EDFN 500 Evaluation of Educational Research (4) or
EDFN 509 Methods of Research in Education (4)
EDIT 453 Instructional Technology and Programmed Instruction (4)
EDSE 521 Teaching Effectiveness: Research and Application (4)

Area of Concentration: Curriculum and Instruction (29 or 30 units)
Select one of following areas.

Emphasis I
Required Courses (16 units):
EDCI 504 EDSE 520, 591, 595
Electives—select at least 13 units from following:
EDAC 507 EDIT 456, 525

Emphasis II
Required Courses (30 units):
EDCI 450, 535
EDSE 415, 423, 520, 595

Comprehensive Examination or Thesis or Project (0, 7 units): EDSE 599 Comprehensive Examination (0) or
EDFN 599A Thesis or Project Planning (2) plus
EDSE 599B Thesis or Project (5)

Students should expect to take the comprehensive examination (EDSE 596) the quarter they complete all course work on their program and must comply with school and division requirements.

Reading/Language Arts Specialist Credential

The Reading/Language Arts Specialist credential program satisfies content requirements established by the Commission on Teacher Credentialing.

Admission to the Program
In addition to university requirements for admission to graduate study, applicants must meet the conditions for classified graduate standing and satisfy the following criteria:
• complete EDEL 400 or EDSE 423, or an equivalent course in reading instruction;
• complete ENGL 400 or 401 or equivalent.
• have verified completion of intensive and extensive successful teaching experience in the classroom through recommendation from school administrators;
• possess a California Multiple Subject or Single Subject teaching credential or its equivalent; and
• pass the comprehensive examination for the M.A. degree in Education, Option in Reading.

Requirements for the Credential (45 units)
A total of 45 units of course work is required. With careful planning, students may earn the Master of Arts degree in Education with an option in Reading concurrently.

Required Courses (45 units):
EDCI 513 Reading as a Cognitive Process (4)
EDCI 522 Diagnostic and Remedial Reading/Language Arts Procedures (4)
EDCI 524 Diagnostic Procedures for Reading/Language Arts Clinicians (5)
EDCI 527 Seminar: Issues and Trends in Use of Children's Literature (4) or
EDEL 525 Whole Language Across the Curriculum (4)
EDCI 538 Advanced Design and Evaluation of Reading/Language Arts Programs (4)
EDCI 540 Application of Therapeutic Procedures in Reading/Language Arts (2, 2)
EDCI 541 Field Work in Reading/Language Arts (4)
EDCI 549 Developing English Reading/Language Arts Skills in Bilingual/Crosscultural Individuals (4)
EDEL 511 Seminar: Research in Teaching Elementary School Reading (4) or
EDFN 521 Seminar: Research in Teaching Elementary School Language Arts (4)
EDFN 500 Evaluation of Educational Research (4)
EDFN 510 Advanced Study: Learning Theory and Education (4)

Certificate Program in Storytelling

The certificate program in Storytelling is designed for persons with an interest in the techniques, theories, and literature associated with the ancient and modern art of storytelling. The certificate is especially valuable for teacher use in language arts instruction and for improving communications skills; it can also be used effectively by librarians and recreation leaders. This program is open to all postbaccalaureate students who meet the university requirements for admission to postbaccalaureate standing. It is applicable toward some master's degree programs in education and other fields.

Completion of this credit certificate program requires 31 units in core and elective courses. Refer to the Graduate Study chapter of this catalog for general regulations governing all certificate programs.

Requirements for the Certificate (31 units)
Required courses (15 units):
EDEL 424 Methods of Using Creative Dramatics with Children (3)
EDEL 473 Storytelling for Teachers (4)
ENGL 430 Children's Literature (4)
SPCH 490 Studies in Children's Speech Arts (4)

Field work (4 units):
EDEL 598 Graduate Directed Study (1–4) and/or
SPCH 595 Graduate Performance (1–4)

Electives—select 12 units from following:
ANTH 445 CHS 420
EDEL 413, 427 TA 401

With adviser approval, students may include courses in the folklore of an ethnic culture.
Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses. A comprehensive examination, or a thesis or project, pertaining to the option is required. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Courses (28 units):

- EDAC 471 Methods and Materials of Adult Education (4)
- EDAC 472 Principles of Adult and Occupational Education (3)
- EDAC 473X or 473Y Supervised Field Experiences in Adult and Occupational Education (2)
- EDAC 476 Curriculum Development in Adult and Occupational Education (4)
- EDAC 477 Counseling in Adult and Occupational Education (3)
- EDCI 560 Principles and Practices of Curriculum Development (4)
- EDFN 500 Evaluation of Educational Research (4) or
- EDFN 509 Methods of Research in Education (4)
- EDFN 510 Advanced Study: Learning Theory and Education (4)

Area Elective (4 units)

Select one from following:

- EDFN 507 Adult Illiteracy (4) or
- EDFN 578 Organization, Administration, and Supervision of Adult Education (4)

Additional electives (6 or 13 units): Select with adviser approval.

- Comprehensive Examination or Thesis or Project (0, 7 units)
- EDFN 596 Comprehensive Examination (0) or
- EDFN 599A Thesis or Project Planning (2) plus
- EDFN 599B Thesis or Project (5)

Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements.

Master of Arts Degree in Education: Option in Computer Education

This option prepares educators to assume leadership roles in the field of computer education. In particular, the program is designed to introduce teachers, trainers, and other leaders to the areas of teaching programming/problem solving; evaluation, selection, and design of instructional software; development, teaching, and direction of computer literacy programs; incorporation of computers into the curriculum; and development and management of instructional microcomputing facilities in the schools. Additional information and advisement are available in the division office.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have completed courses covering computer literacy and applications in education (e.g., EDIT 430 or CS 160 plus EDIT 447 meets both requirements) as well as introductory computer programming (e.g., EDIT 481). Students must make written application to the School of Education and to the Division of Educational Foundations and Interdivisional Studies.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses. A comprehensive examination or a thesis or project is required. There is a limit on credit that may be earned in variable-unit courses. See Restriction on Credit Earned in Variable Unit Courses earlier in this chapter.
Required Courses (32 units):

EDCI 560  Principles and Practices of Curriculum Development (4)
EDEL 480  Teaching Microcomputing in Schools (4)
EDFN 500  Evaluation of Educational Research (4)
EDFN 510  Advanced Study: Learning Theories (4)
EDIT 482  Microcomputing in Schools: BASIC II (4)
EDIT 484  Authoring Tools in Education (4)
EDIT 556  Role of the Computer Specialist in Education (4)
EDIT 557  Computer Assisted and Managed Instruction (4)

Electives (6 or 13 units):
Select from following or other courses about computer applications in schools, including enough 500-level courses to bring the total units in 500-level courses in the program to at least 23.

EDAD 545  EDEL 580, 581
EDIT 483, 555, 570  LIBR 501
EDSP 508

Other electives may be included with adviser approval. Especially encouraged are upper division courses in computer science provided students have met prerequisite requirements.

Comprehensive Examination or Thesis or Project (0 or 7 units):

EDFN 596  Comprehensive Examination (0) or
EDFN 599A  Thesis or Project Planning (2) plus
EDFN 599B  Thesis or Project (5)

Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements.

Master of Arts Degree in Education: Option in Instructional Technology

The Master of Arts degree in Education, option in Educational Foundations, offers concentrations in social and psychological foundations and is intended for educators interested in the theoretical bases of education.

Admission to the Program
In addition to university requirements for admission to graduate study, applicants must have a 2.75 grade point average in the last 90 quarter units attempted, a teaching credential, and an undergraduate major or minor in a cognate discipline.

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 23 in 500-level courses and at least 23 in education courses. In addition, a comprehensive examination, or a thesis or project, pertaining to the area of concentration is required. Students who plan to register in 500-level courses should consult an adviser prior to registration. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Course (4 units):
EDFN 500  Evaluation of Educational Research (4) or
EDFN 509  Methods of Research in Education (4)

Required in Cognate Discipline (12 units):
Select with adviser approval.

Area of Concentration (8 units)
Select two EDFN courses from one of following areas:

- Psychological Foundations
  EDFN 510  Advanced Study: Learning Theory and Education (4)
  EDFN 530  Advanced Study in Child Development (4)

- Social Foundations
  EDFN 506  Comparative Education (4)
  EDFN 507  History of Education (4)
  EDFN 508  Philosophy of Education (4)
  EDFN 525  Educational Sociology (4)

Electives (4–21 units):
Select courses in education with adviser approval.

Electives in Cognate Discipline (0–10 units):
Select with adviser approval.

Comprehensive Examination or Thesis or Project (0, 7 units):
EDFN 596  Comprehensive Examination (0) or
EDFN 599B  Thesis or Project Planning (2) plus
EDFN 599B  Thesis or Project (5)

Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements.

Master of Arts Degree in Education: Option in Instructional Technology

The Instructional Technology option prepares elementary and secondary level specialists who combine skills in applying computer technology with advanced video and multimedia techniques to enhance the learning experience of students at all levels.

Admission to the Program
In addition to university requirements for admission to graduate study, applicants must possess a 2.75 grade point average in the last 90 quarter units attempted.

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 23 in 500-level courses. A comprehensive examination, or a thesis or project, pertaining to the option is required. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Courses (29 units):
EDCI 560  Principles and Practices of Curriculum Development (4)
EDFN 500  Evaluation of Educational Research (4) or
EDFN 509  Methods of Research in Education (4)
EDIT 450B  Instructional Materials Preparation Lab (1)
EDIT 451  Instructional Media Techniques (4)
EDIT 453  Instructional Technology and Programmed Instruction (4)
EDIT 456  Computer Applications in Schools (4)
EDIT 553  Administration of Instructional Media Services (4)
EDSE 521  Teaching Effectiveness: Research and Application (4)

Select four from following with adviser approval (9–14 units):
EDIT 551  Advanced Multimedia Techniques (3)
EDIT 552  Instructional Media Design (3)
EDIT 554A  Video Technology in Education I (4)
EDIT 555  Simulation and Gaming (3)
EDIT 557  Computer Assisted and Managed Instruction (4)
Approved Electives (0–7 units): Select with adviser approval.

Comprehensive Examination or Thesis or Project (0, 7 units)

EDFN 596 Comprehensive Examination (0) or
EDFN 596A Thesis or Project Planning (2) plus
EDFN 596B Thesis or Project (5)

Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements.

Master of Arts Degree in Education:

Option in Library Science

The Library Science option prepares school library media specialists for library media centers at all educational levels, emphasizing development of critical skills in this growing, rapidly changing and expanding field. Credentialled teachers study various aspects which vary from research to one-on-one contact with students to budget and purchasing to management, and more.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must possess a 2.75 grade point average in the last 90 quarter units attempted and a Multiple Subject or Single Subject teaching credential issued by the state of California.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 2 in 500-level courses. A comprehensive examination, or a thesis or project, pertaining to the option is required. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Courses (12 units):

EDCI 580 Principles and Practices of
Curriculum Development (4)
EDFN 500 Evaluation of Educational Research (4) or
EDFN 509 Methods of Research in Education (4)
EDFN 510 Advanced Study: Learning Theory and Education (4)

Select five from following (20 units):

LIBR 401 Management of School Library
   Media Programs (4)
LIBR 403 The School Library Media Program and
   the Curriculum (3)
LIBR 406AB Information Services in School Library
   Media Programs I, II, (4, 4)
LIBR 407 Selection, Acquisition, and Utilization of
   Instructional Materials (4)
LIBR 409 Cataloging and Classification of
   Instructional Materials (4)

Approved Electives (select 6–13 units with adviser approval)

Comprehensive Examination or Thesis or Project (0, 7 units)

EDFN 596 Comprehensive Examination (0) or
EDFN 596A Thesis or Project Planning (2) plus
EDFN 596B Thesis or Project (5)

Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements.

Master of Arts Degree in Teaching English to Speakers of Other Languages (TESOL)

The Master of Arts Degree in Teaching English to Speakers of Other Languages (TESOL) prepares teachers for a wide variety of positions both in the U.S. and abroad. The program emphasizes language acquisition processes, teaching methodology, linguistics, language testing, research, and sociocultural influences.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have a 2.75 grade point average in the last 90 quarter units attempted. They must make formal application to the School of Education and must consult a faculty adviser for program planning. A teaching credential and/or two years of teaching experience prior to entering the program are desirable.

Prerequisites

- ENGL 401 English Language in America (4)
- One year of college level study in a foreign language
- Minimum 550 score on TOEFL (visa students only)

Minimum B grade required

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses. A comprehensive examination, or a thesis or project, pertaining to the option is required. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Core (36 units):

Courses are listed in the recommended sequence.

ANTH 470/ENGL 403 Language and Culture (4)
ENGL 405 Modern English Grammar (4)
EDCI 453 Teaching in Bilingual/Crosscultural Schools (4)
COMD 456 Natural Processes of First Language Acquisition (4)
EDFN 560 Theories of Teaching and Learning Second Languages (4)
EDFN 562 Methods for Teaching Second Languages I (4)
EDFN 563 Methods for Teaching Second Languages II (4)
EDFN 564 Teaching ESL for Academic Purposes (4)
EDFN 567 Language Testing (4)
EDFN 569 Evaluation of Educational Research (4)

Select five from following (9 units)

ANTH 472, 501
EDCI 449
EDFN 570, 571, 573, 597, 598
EDIT 456
ENGL 505, 506

Comprehensive Examination or Thesis or Project (0, 7 units)

EDFN 596 Comprehensive Examination (0) or
EDFN 596A Thesis or Project Planning (2) plus
EDFN 596B Thesis or Project (5)

Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements. Selection of an appropriate thesis or project topic may allow students to substitute thesis or project units for other course work in the program, with adviser approval.

Master of Arts Degree in Urban Education

The Master of Arts degree in Urban Education is intended for individuals interested in the problems and challenge of providing education in metropolitan schools, and offers a number of options.

Library Science option prepares school library media specialists for library media centers at all educational levels, emphasizing development of critical skills in this growing, rapidly changing and expanding field. Credentialled teachers study various aspects which vary from research to one-on-one contact with students to budget and purchasing to management, and more.
Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have a 2.75 grade point average in the last 90 quarter units attempted and a teaching credential or be closely associated with some aspect of the provision of education in an urban setting.

Requirements for the Degree (45 units)

A total of 45 units is required. At least 23 units must be in 500-level courses and at least 23 must be in education courses. In addition, a comprehensive examination or a thesis or project pertaining to the option is required. Course work beyond that designated as the required core will be determined in consultation with a faculty adviser. Students who plan to register in 500-level courses should consult an adviser prior to registration. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.

*Required Core (20 units)

EDCI 560 Principles and Procedures of Curriculum Development (4)
EDFN 437 Education and Intergroup Relations (4)
EDFN 500 Evaluation of Educational Research (4)
EDFN 510 Advanced Study: Learning Theory and Education (4)
EDFN 537 Educational Issues in Metropolitan Areas (4)

*except for the Bilingual/Crosscultural Education and Preliminary Administrative Services Credential option which has a separate core

Options (18–25 units)

Select one of the following options:

- Afro-American Students in Urban Schools (18–25 units)
  Required Courses (18 units):
  PAS 401, 420, 425, 440, 498 (for 2 units)
  (Substitutions will be made for these required courses if taken to meet baccalaureate requirements. Consult a Pan-African Studies Department adviser.)
  Electives—Select 0–7 units with approval of adviser and division chair; include sufficient 500-level courses to ensure a minimum of 23 units on the program.

- Asian-American Students in Urban Schools (18–25 units)
  Required Courses (18 units):
  EDCI 536
  GEOR 446
  HIST 598 (for 2 units)
  Electives—select 0–7 units with adviser approval.

- Bilingual/Crosscultural Education (18–25 units)
  Required Courses (10 units):
  EDFN 540AB and 560
  Electives—select 12–13 units with adviser approval.
  EDCI 449, 450, 453, 455, 510, 535, 536
  EDFN 438, 506–508, 531, 562, 563, 567, 570, 571

- Chicano Students in Urban Schools (18–25 units)
  Required Courses (16 units):
  CHS 410, 444, 470, 506
  Electives—Select 2–9 units with adviser approval.

- Teaching in the Urban Classroom (18–25 units)
  Required Courses (18 units):
  EDCI 526, 535, 539
  EDFN 531, 598 (for 2 units)
  Electives—select 0–7 units with adviser approval.
  CHS 410, 470
  EDFN 438, 540AB, 560, 588
  EDAC 507
  PAS 420, 425
  EDCI 452, 510, 536
  EDFN 596 Comprehensive Examination or Thesis or Project (0, 7 units):
  EDFN 596 Comprehensive Examination (0) or Thesis or Project Planning (2) plus
  EDFN 599B Thesis or Project (5)
  Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements.

- Bilingual/Crosscultural Education and Preliminary Administrative Services Credential (51–59 units)

This option does not utilize the core used in the other options. All requirements appear below. Students who complete this option will have a Preliminary Administrative Services credential authorizing service in any public school administrative position and an M.A. degree in Urban Education: Option in Bilingual/Crosscultural Education.

Corequisites (12 units):
EDFN 437 plus two of the following:
EDCI 449, 453, 455
EDFI 560, 563

Requirements of the Program (55–62 units)

Required Courses (51–52 units)

- EDAD 506 Leadership in Education (3)
- EDAD 507 Educational Planning and Decision Making Models (3)
- EDAD 509 Basic School Law (3)
- EDAD 510 School Finance (3)
- EDAD 515 Social and Political Forces Affecting Education (3) or EDFN 537 Educational Issues in Metropolitan Areas (4)
- EDAD 517 Educational Staff Development and Evaluation (3)
- EDAD 518 Program Management, Development and Evaluation (3)
- EDAD 548 Seminar: Supervision of Instructional Programs (3)
- EDAD 554 Seminar: Research and Development in Educational Administration (3)
- EDFN 540AB Bilingual Education Models (3, 3)
- EDFN 553 Educational Research and Decision Making (4)
- EDFN 580 Field Work in Administration and Supervision of Bilingual/Crosscultural Programs (3)
- EDSF 501 Problems and Practices in Special Education (3)

Select two from following:
EDAD 581ABCD Field Work in Educational Administration (2, 2)

Select one from following:
EDFN 506 Comparative Education (4) or
EDFN 507 History of Education (4) or
EDFN 508 Philosophy of Education (4)

Comprehensive Examination (0) or Thesis or Project (0, 7 units):
EDFN 596 Comprehensive Examination (0) or Thesis or Project Planning (2) plus
EDFN 599B Thesis or Project (5)
Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on their program and must comply with school and division requirements.

**Community College Instructor Credential**

Requirements for the Community College Instructor credential are set by the Board of Governors of the California Community Colleges. Details of these requirements and of a program in professional education for those interested in community college teaching may be secured from the Coordinator for Community College Education; a brochure is available in the Division of Educational Foundations and Interdivisional Studies office.

**Designated Subjects Teaching Credential**

The Designated Subjects credential authorizes holders to teach in the subject designated on the certificate in classes organized primarily for adults. Programs are submitted to the Commission on Teacher Credentialing for approval in such general areas as Technical and Trade Education, Business Education, Homemaking Education, Adult Education, Driver Education, and Driver Training. The following departments offer vocational area advisement: Criminal Justice, Family Studies and Consumer Sciences, Office Systems and Business Education, or Technology. The Division of Educational Foundations and Interdivisional Studies advises in adult education and coordinates the credential program.

**Requirements for Preliminary Credential**

Applicants must satisfy the following criteria for the university-recommended credential:

- Formal approval of the Designated Subjects credential program.
- Verification of a bachelor’s degree from a regionally accredited institution and a passing score on the CBEST (for adult-academic authorizations and for driver education).
- Verification of five years of work experience in an appropriate vocational area and possession of a high school diploma (for vocational authorizations).
- Submission of an acceptable program and evaluation plan for completion of requirements for the clear credential.
- Satisfaction of U.S. Constitution requirement.

**Requirements for Clear Credential**

Applicants must complete the following requirements for the university-recommended credential:

- Satisfy requirements for the preliminary credential.
- Complete all formal admission requirements including the development of a personalized in-service Training Program and Evaluation Plan for professional studies and other requirements.
- Complete a program of professional study and other academic or occupational requirements.
- Pass UNIV 400, the Writing Proficiency Examination (WPE).
- Satisfy the U.S. Constitution requirement.
- Complete two years of full-time or part-time teaching as defined by the Commission on Teacher Credentialing.
- Satisfy the state requirement for course work in health education (including nutrition and the study of the physiological and sociological effects of the use of dangerous drugs, narcotics, alcohol, and tobacco) by completing HS 456 or equivalent.

**Professional Education Requirements (18 units):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDAC 471</td>
<td>Methods and Materials of Adult Education</td>
<td>4</td>
</tr>
<tr>
<td>EDAC 472</td>
<td>Principles of Teaching Adult and Occupational Education</td>
<td>3</td>
</tr>
<tr>
<td>EDAC 473X, Y</td>
<td>Supervised Field Experiences in Adult and Occupational Education</td>
<td>2, 2</td>
</tr>
<tr>
<td>EDAC 476</td>
<td>Curriculum Development in Adult and Occupational Education</td>
<td>4</td>
</tr>
<tr>
<td>EDAC 477</td>
<td>Counseling in Adult and Occupational Education</td>
<td>3</td>
</tr>
</tbody>
</table>

**Library Media Teacher Credential Program**

The Library Media Teacher credential program authorizes services as a school library media specialist in both elementary and secondary schools. The program is approved by the Commission on Teacher Credentialing.

**Admission to the Program**

Applicants to the credential program must fulfill university requirements for admission to post-baccalaureate study and admission to the School of Education. The Commission on Teacher Credentialing requires that applicants for the Library Media Teacher credential have a valid teaching credential and pass the California Basic Educational Skills Test (CBEST).

**Requirements for the Credential (50 units):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDCI 560</td>
<td>Principles and Practices of Curriculum Development</td>
<td>4</td>
</tr>
<tr>
<td>EDEL 427</td>
<td>Using Children’s Literature in Elementary Classrooms</td>
<td>4</td>
</tr>
<tr>
<td>EDIT 451</td>
<td>Instructional Media Techniques</td>
<td>4</td>
</tr>
<tr>
<td>EDSE 524</td>
<td>Instructional Materials in Secondary Schools</td>
<td>4</td>
</tr>
<tr>
<td>LIBR 401</td>
<td>Management of School Library Media Programs</td>
<td>4</td>
</tr>
<tr>
<td>LIBR 403</td>
<td>The School Library Media Program and the Curriculum</td>
<td>4</td>
</tr>
<tr>
<td>LIBR 406AB</td>
<td>Information Services in School Library Media Programs I, II</td>
<td>4, 4</td>
</tr>
<tr>
<td>LIBR 407</td>
<td>Selection, Acquisition, and Utilization of Instructional Materials</td>
<td>4</td>
</tr>
<tr>
<td>LIBR 409</td>
<td>Cataloging and Classification of Instructional Materials</td>
<td>4</td>
</tr>
<tr>
<td>LIBR 450</td>
<td>Field Work in School Library Media Programs</td>
<td>6</td>
</tr>
<tr>
<td>LIBR 501</td>
<td>Computer Applications in School Library Media Centers</td>
<td>4</td>
</tr>
</tbody>
</table>

**Supplementary Authorization for Single or Multiple Subject Teaching Credential**

Holders of a Single Subject or Multiple Subject teaching credential issued by the state of California may supplement that credential with an authorization in Introductory English as a Second Language (ESL) for teaching ESL at any grade level through grade 9 by completing the following program with a C- grade or higher in each course. For other requirements, consult the School of Education.

- Complete or demonstrate proficiency in each of the following courses (16 units):
  - EDCI 453 Teaching in Bilingual/Crosscultural Schools (4) or EDCI 535 Instructional Strategies for Teaching Cultural Awareness (4)
  - EDFN 560 Theories of Teaching and Learning Second Languages (4)
  - EDFN 562 Methods for Teaching Second Languages (4)
  - ENGL 401 English Language in America (4)

**EDUCATIONAL FOUNDATIONS AND INTERDIVISIONAL STUDIES / 367**
Certificate Program in Computer Applications in Schools

The credit certificate program in Computer Applications in Schools is designed to prepare teachers to use computers in their classrooms and to take leadership roles in their schools. Those who complete the program will be prepared to teach computer programming/problem solving; to select and modify instructional software; to evaluate and select hardware; and to use computers to manage classrooms and schools. Completion of this credit certificate program requires 28 units in core and elective courses with a minimum B (3.0) average. Refer to the Graduate Study chapter of this catalog for general regulations governing all certificate programs.

Requirements for the Certificate (28 units)

Core Courses (12 units):

EDIT 430 Introduction to Computers and Their Uses in Classrooms (4)

Select two from following:

- EDEL 480 Teaching Microcomputing in Schools (4)
- EDIT 481 Microcomputing in Schools: BASIC I (4)
- EDIT 482 Microcomputing in Schools: BASIC II (4)
- EDIT 483 Pascal for Teachers (4)
- EDIT 484 Computer Authoring Tools (4)

Electives (select 16 units from following with careful attention to prerequisites):

EDAD 545 EDEL, *480, 580, 581
EDSP 508

* if not taken in the core

Students are encouraged to consult an adviser for assistance in planning their program to fulfill individual needs. Careful attention to course prerequisites is urged, also.

Certificate Program in English as a Second Language (ESL)

This program is designed to prepare and qualify teachers to work in classrooms or other educational settings where students are learning to speak, read, and write English as a second language (kindergarten through adult levels).

Admission to the Program

Apply for formal admission to the program through the Division of Educational Foundations and Interdivisional Studies.

Requirements for the Certificate (minimum 32 units)

In addition to course requirements, a passing score on UNIV 400-Writing Proficiency Examination (WPE) is required. A minimum B (3.0) grade point average is required on all course work included in the program. Refer to the Graduate Study chapter of this catalog for general regulations governing all certificate programs.

Required Courses (32 units):

The following sequence is recommended:

ENGL 401 English Language in America (4)
EDCI 453 Teaching in Bilingual/Crosscultural Schools (4)
EDCI 449 Developing English Reading Skills in Bilingual/Crosscultural Individuals (4)
COMD 455 Natural Processes of First Language Acquisition (4)
EDFN 560 Theories of Teaching and Learning Second Languages (4)
EDFN 562, 563 Methods for Teaching Second Languages (4, 4)
EDFN 568 Field Work in English as a Second Language (4)

Optional Electives (select with adviser consultation):

EDFN 540 AB, 570, 571 EDIT 452
ENGL 405

Language Development Specialist Certificate

(issued by the state of California)

The Language Development Specialist certificate program is designed to prepare teachers to work with Limited English Proficient (LEP) students in the areas of English as a second language and basic skills development. Completion of the program entitles participants to register for a state examination leading to issuance of a Language Development Specialist certificate provided they meet all state requirements including those listed below. Students may pursue this certificate simultaneously with a teaching certificate program.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have completed at least one year of college level course work in a foreign language and must hold a valid teaching credential issued by the state of California or be eligible for one. Formal admission to the program is obtained through application to the Division of Educational Foundations and Interdivisional Studies.

Requirements for the Certificate (minimum 36 units)

In addition to course requirements, a passing score on UNIV 400-Writing Proficiency Examination (WPE) is required. A minimum B (3.0) grade point average is required on all course work included in the program.

Required Courses (36 units):

The following sequence is recommended:

ENGL 401 English Language in America (4)
EDCI 453 Teaching in Bilingual/Crosscultural Schools (4)
EDCI 449 Developing English Reading Skills in Bilingual/Crosscultural Individuals (4)
COMD 455 Natural Processes of First Language Acquisition (4)
EDFN 560 Theories of Teaching and Learning Second Languages (4)
EDFN 562, 563 Methods for Teaching Second Languages (4, 4)
EDFN 567 Language Testing (4)
EDFN 568 Field Work in English as a Second Language (4)

Optional Electives (select with adviser consultation):

EDFN 540 AB, 570, 571 EDIT 452
ENGL 405
SPECIAL EDUCATION

School of Education

Program advisement provided for:
- Communicatively Handicapped
- Early Childhood Handicapped
- Gifted
- Handicapped Adolescents and Young Adults
- Learning Handicapped
- Multicultural/Multilingual Special Education
- Orientation and Mobility
- Physically Handicapped
- Resource Specialist
- Severely Handicapped
- Visually Handicapped
- Joint Doctoral Program

Courses offered in:
- Higher Education (EDHI)
- Special Education (EDSP)

Master of Arts Degree in Special Education

The Master of Arts degree in Special Education provides administrators, teachers, and therapists with advanced preparation for work with exceptional learners. Master’s degree candidates must incorporate the specialist credential requirements in their area of specialization as a part of their program. (This requirement may be waived for personnel such as nurses, occupational or physical therapists, or orientation and mobility specialists.) The master’s degree program includes a choice among twelve options.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have a 2.75 grade point average in their last 90 quarter units attempted, must have completed (or complete concurrently) requirements for a California credential in Special Education (except in selected areas), must complete all division application procedures, and must obtain approval from the division. A number of scholarships and traineeships is available to qualified students. Interested students should contact the division office.

Advisement

Students should seek advisement for all Special Education credential and graduate programs in the Division of Special Education.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses. The program has four components: core requirements; option; electives; comprehensive examination or thesis or project. Students must pursue the thesis or project option only when they meet specified division and school criteria. There is a limit on credit that may be earned in variable-unit courses. See Restriction on Credit Earned in Variable Unit Courses earlier in this chapter.

Required Core (11 units)
EDSP 400 Education and Psychology of Exceptional Individuals (4)
EDSP 500 Seminar: Special Education (4)
EDSP 501 Problems and Practices in Special Education (3)

Options (11–31 units)
Select one option from the following, with adviser consultation and approval. Special education credential courses may be included to a maximum of 16 units.
- Early Childhood Education for the Handicapped (19–22 units)
EDSP 415, 416, 503 (3–6 units), 515, 580
- Education of Communication Handicapped Individuals (28 units)
Required courses (12 units):
EDSP 502, 550, 568
Select 16 units from following:
COMD 406, 501
EDSP 401, 404, 405, 408, 420, 521, 522, 523, 530
- Education of Handicapped Adolescents and Young Adults (25 units)
COUN 405B or PSY 412B CRIM 480 or SOC 484 or 486
EDSP 405, 502, 503, 506
SOC 482
- Gifted Education (19 units)
EDSP 440, 441, 503, 540, 541
- Education of Learning Handicapped Individuals (31 units)
Required courses (15 units):
EDSP 502, 503 (3 units), 555, 580
Select 16 units from following:
COMD 450, 456 EDSP 401, 402, 404, 405, 450, 550
PSY 406
- Multicultural/Multilingual Programs in Special Education (31 units)
Prerequisites:
EDSP 401, 402
Recommended prerequisites:
COUN 502
Required Courses (15 units):
EDSP 510
Required Courses (15 units):
COUN 501
EDSP 503, 511, 512
BILINGUAL/ESL METHODOLOGY (8 units)
Select one methodology area listed below and complete 8 units within that area.
Bilingual Methodology
EDCI 453, 455, 536
EDFN 537, 540AB
English as a Second Language (ESL) Methodology
EDFN 560, 562, 563          EDUC 499

CULTURE AREA (8 units)
Select one culture area listed below and complete eight units within that area.

Chicano Studies
ANTH 443 or EDFN 437 or SPCH 489
CHS 406, 410, 440, 470, 504

Chinese-American Studies
One of the following: ANTH 443; ART 431; EDFN 437 or 438;
PHIL 435; SPCH 489
CHIN 408, 410          GEOG 430

Japanese-American Studies
One of the following: ANTH 443; ART 431; EDFN 437 or 438;
GEOG 425; PHIL 435; SPCH 489
JAPN 400A, 400B, 403, 454LP, 460

Latin American Studies
ANTH 443 or EDFN 437 or SPCH 489
LAS 424, 435, 450

Pan-African Studies
ANTH 443 or EDFN 437 or SPCH 489
PAS 400, 401, 410, 425

• Orientation and Mobility Specialist for the Blind (29 units)
EDSP 460 or 469        EDSP 465, 475, 476, 503 (for 9 units), 575

• Education of Physically Handicapped Individuals (24 units)
Required course (8 units)
EDSP 502, 560
Select 16 units from following:
EDSP 401, 402, 404, 405, 460, 461, 462
COMD 450, 452

• Resource Specialist in Special Education (15 units)
EDSP 502, 503, 510, 585

• Education of Severely Handicapped Individuals (11 or 19 units)
Plan A. Autistic and Severely Emotionally Disturbed
EDSP 503, 582          PSY 512
Plan B. Moderately and Profoundly Retarded
EDSP 450, 580, 581, 582          PE 452

• Education of Visually Handicapped Individuals (24 units)
Required courses (8 units):
EDSP 502, 565
Select 16 units from following:
EDSP 401, 402, 404, 405, 460, 465, 466, 467, 566
Electives (0–23 units):
Courses must be approved by an adviser and will include graduate courses, courses that meet credential requirements in the candidate’s field of specialization, and two courses outside the field. Sixteen units of credential courses within the candidate’s field of specialization, exclusive of EDSP 400, may be applied toward the master’s degree if taken in graduate standing.

Comprehensive Examination or Thesis or Project (0.7 units):
EDSP 596 Comprehensive Examination (0) or
EDFN 599A Thesis or Project Planning (2) plus
EDSP 599B Thesis or Project (5)

Students should expect to take the comprehensive examination (EDSP 596) the quarter they complete all course work on their program and must comply with school and division requirements.

Specialist Credential Program
Preparation for the Special Education Specialist credential involves two levels of training. The first is the generic core, required of all students completing Specialist credential preparation in Special Education at California State University, Los Angeles. The core is designed to provide broad exposure to all exceptionalities through lecture courses and field experiences. The second level of preparation includes the specialization courses that provide knowledge and experiences related to the area of specialization. For credentials that allow for more than one area of emphasis, there is course work within each area of emphasis. Students may combine their program to earn dual emphases within a credential or two Special Education teaching credentials.

The following material provides general credential information and indicates course requirements for Specialist credential preparation within the Division of Special Education. Students must possess or be concurrently earning a California Single Subject or Multiple Subject credential before the Specialist credential can be issued. The Specialist credential also may be obtained by those who possess or qualify for a basic teaching credential authorized under previous legislation.

Specialist Credential Program Areas
Programs for all Special Education Specialist areas defined by the Education Code and Title 5 have been approved for offering at Cal State L.A. The programs are available to those who possess, or are earning concurrently, a Multiple Subject or Single Subject teaching credential. The programs are also available to those who possess, or can qualify for, a basic teaching credential authorized under previous legislation. Areas of Special Education preparation under this option are:

• Communication Handicapped Specialist Credential: Includes speech and hearing, aphasic and severe oral language handicapped, and deaf and severely hard of hearing, and deaf-blind.
• Gifted Specialist Credential.
• Learning Handicapped Specialist Credential: Includes learning disabilities, behavior disorders, and educationally retarded.
• Physically Handicapped Specialist Credential: Includes orthopedically handicapped, crippled, and other health impaired.
• Severely Handicapped Specialist Credential: Includes trainable mentally retarded, severely multiple handicapped, seriously emotionally disturbed, and autistic.
• Visually Handicapped Specialist Credential: Includes blind and partially seeing.
• Clinical-Rehabilitative Services Credential in Orientation and Mobility: Authorizes services for work with the blind and partially sighted in schools and rehabilitation agencies.
• Administrative Services Credential: Authorizes services as a superintendent, associate superintendent, deputy superintendent, principal, assistant principal, supervisor, consultant, or
division of Curriculum and Instruction for specific course sequenc­
b on and application forms at the School of Edu cation Student
Edu cat ion Specialist credent ials must apply for admiss ion to the
basic California teaching credential. Consu lting advisers in the
Services Center, KH 02078. Individuals who have not com­pleted
School of Education Credential Programs. Students in upper
300. Also see
a v a lid basic credential (preliminary or clear) may obtain infor­
ma­tions and requir ements for the basic credent ial. Ind ivid uals who hold
Division standing at Cal State L.A are eligible to apply. However,
the basic credential (preliminary or clear) should register for EOCI
45 untts beyond the baccalaureate are needed to obta in the
Adm ission to the Division of Specia l Educat ion Credential
All student s who plan to enter a program for one of the Special
Admissi on to Credential Programs
T eachin g.
Program s is based on:
Special Education Specialist Credentials
This specialization has two subareas of prepa ration—one offered
• Department of Communication Disorders. The subarea of Deaf
and Severely Hard of Hearing requires 62 units. The subarea of
Speech and Hearing, Aphasic, and Severely Oral Language Hand­
 handicapped requires 116 units.
Required Courses (50 units):
EDSP 400-405, 407, 408, 420, 521, 522, 523
COMD 406, 501
The 116 units required for the subarea of Speech and Hearing, Aphasic, and Severely Oral Language Handicapped include 100 units of required courses and 16 units of electives.
Required Courses (100 units):
COMD 400-406, 420, 425, 429, 450, 456, 461, 462AB,
470-476, 478AB, 490AB, 570AB-578
COUN 405 or PSY 412AB
Electives (16 units):
Select courses in communicative disorders (COMD), counseling
(COUN), special education (EDSP), and speech communication
(SPCH), with adviser approval. At least 4 units must be taken in
courses specific to the subarea.
• Gifted Specialist Credential (47 units)
Required Courses (39 units):
EDSP 400-404, 407 (for 12 units), 440, 441
Electives (select 8 units from following):
COUN 492
COUN/ECDI 528
EDSP 408, 540
• Learning Handicapped Specialist Credential
Option 1. On-Campus Program (45 units):
EDSP 400-405, 407 (for 12 units), 550
EDSP 450 or PSY 406
EDSP 408 or COMD 450 or 456
Option 2. Off-Campus Program (45 units):
Courses should be taken in the following recommended sequence:
EDSP 400, 401, 402, 489 (for 5 units), 404, 405,
550, 489 (two quarters, 5 units each), 596 (for 2 units)
Select one from following (4 units):
EDSP 450 or PSY 406
Select one from following (4 units):
EDSP 408 or COMD 450 or 456
• Orientation and Mobility (37 units):
EDSP 400, 406, 465, 476, 501, 503, 575, 576
EDSP 460 or 469
• Physically Handicapped Specialist
Credential (53 units)
EDSP 400-405, 407 (for 12 units), 461, 462
COMD 450, 452
COMD 450 or EDSP 408
• Severely Handicapped Specialist
Credential (48 units)
Option 1. On-Campus Program (49 units):
Required courses:
EDSP 400-405, 407 (for 12 units), 480, 481
COMD 456 or EDSP 408 COUN 501
Option 2. Off-Campus Program (49 units):
Courses should be taken in the following recommended sequence:
EDSP 400, 401, 402, 489 (for 5 units), 404, 405,
480, 481, 489 (two quarters, 5 units each), 596 (for 2 units)
Additional required courses (8 units):
COUN 501
EDSP 408 or COMD 456
• Visually Handicapped Specialist Credential
Option 1: On-Campus Program (58 units):
EDSP 400-405, 407 (for 12 units), 461, 465, 466, 467, 469, 568
COMD 456 or EDSP 408
Option 2: Internship Program (59 units):
Required Courses (44 units):
EDSP 400-402, 404, 405, 461, 465, 466, 467, 469,
568, 598 (for 2 units)
COMD 456 or EDSP 408
Practicum Requirements (15 units):
EDSP 489 (5, 5) (directed teaching)
EDSP 489 (5) (generic practicum)
The Resource Specialist in Special Education serves mildly handicapped children and youth who spend a majority of their school day in a regular classroom. The Resource Specialist must possess a valid teaching credential in Special Education; have a minimum of three years of successful full-time classroom teaching that includes both regular class and special education experience; and have completed or be enrolled in an advanced preparation program in Special Education.

The Commission on Teacher Credentialing has adopted a certificate authorizing service as a Resource Specialist in Special Education. Because of the varying needs and backgrounds of students, three program options have been approved for offering at Cal State L.A.

- **Option for Preservice Resource Specialist Training**

  Required Courses (16-17 units):
  
  EDSP 489 (5) or 503 (6)   EDSP 501, 510, 512
  * must be taken before 489 or 503

- **Option for In-Service Resource Specialist Training**

  This option is intended for individuals who are currently functioning as Resource Specialists and who hold the Preliminary Certificate of Competence, and is available only to prearranged groups.

  Required Courses:
  
  EDSP 489 (for 12 units), ** 504
  ** must be taken before 489

- **Option for Internship Resource Specialist Training**

  Required Courses (26-27 units)
  
  EDSP 489 or 503 (15-16 units)
  **EDSP 501, 510, 512
  ** must be taken before 489

The specific competencies and skills developed through this option are identical to the two other existing training options but have increased emphasis on intensive supervised field work (three experiences extending over a three-quarter period).

**Doctor of Philosophy Degree in Special Education**

A doctoral program in Special Education, offered jointly by the University of California, Los Angeles and California State University, Los Angeles, combines the unique resources of the two institutions. The program provides preparation for leadership positions in higher education and the public schools, as well as preparation for a career in scholarly research.

The degree requires major work in special education and cognate, minor, and breadth work in related areas. Advanced courses and research seminars supply technical backgrounds in the specializations in which students plan to do their dissertation. Practicum, field work, and/or internship assignments are planned on an individual basis.

**Admission to the Program**

To be considered for admission, applicants must meet the following requirements:

- Have completed a master's degree or the equivalent, either in special education in an allied field, or in the cognate field in which they propose to work. If any aspect of such preparation is lacking, applicants will engage in studies to achieve the requisite background.

- Have passed such examinations as may be specified by the Committee on Graduate Degrees (currently, a minimum total score of 1,000 is required on the general test of the Graduate Record Examination).

- Have a grade point average of at least B (3.0) in all upper division work.

- Maintain at least a 3.5 grade point average in all work completed subsequent to the baccalaureate.

- Show evidence of research capability. A master's thesis or comparable research project may be acceptable.

- Complete sufficient course work to merit recommendation for admission by at least two resident graduate faculty members and one professional field supervisor, or three resident faculty members from one or both campuses.

The resident adviser on the campus where applicants initiate work will assist in preparation of materials for consideration by the joint admissions committee. Applicants will be considered for admission by the Cal State L.A. Joint Doctoral Committee and the UCLA Committee on Admissions and Standards.

**Planning the Program**

Upon admission to the program, students are assigned a faculty member at each campus to assist them in planning their program of studies. About half of the course work is taken at Cal State L.A.

Course requirements from both campuses include core, minor, breadth, research and design, research internship, specialization, and cognate courses. Specific courses in each of the required areas are determined by the candidate, the faculty advisers, and the joint doctoral coordinator, within approved program guidelines. The students' individual programs are based on their background and are designed to ensure their competencies in the above areas. Advisement materials are available from the joint doctoral coordinator and in the division office.

The program is planned to provide a comprehensive understanding of the entire field of special education and is designed to develop competence in specific areas of research relating to exceptional children; strengthen background through study in a cognate area; and provide electives to complete a balanced program of study. The program is not built around specific unit requirements, but will be designed to ensure the candidate's competencies in the above areas.

**Residence Requirements**

All doctoral candidates are required to engage in six or more quarters of resident study; minimum requirement is three quarters in full-time residence on each campus. Normally the program may be expected to require more than minimum residence requirements. The exact distribution of time on each campus will depend upon the individual program. Doctoral candidates must be enrolled in three of every four quarters unless on formal leave of absence.

Candidates are allowed a period of time not to exceed four years from the beginning of course work to advancement to candidacy, and four additional years from advancement to candidacy to completion of the dissertation.
Qualifying Examinations

When the candidate has completed the course work recommended by the resident advisers, application is made for written qualifying examinations.

After the candidate has completed the written qualifying examinations successfully, a joint doctoral committee will be appointed by the deans of the graduate divisions of the two institutions. This committee will be composed of two approved faculty members from the UCLA Graduate School of Education, two from the Cal State LA Division of Special Education, one from the cognate department at UCLA, and one from the cognate department at Cal State LA. This committee will conduct an oral examination covering topics from both special education and the cognate discipline related to the candidate’s research proposal, to determine the candidate’s qualifications to conduct meaningful research in the field.

Advancement to Candidacy

Candidates who have passed both written and oral qualifying examinations file an application for advancement to candidacy. Thereafter, enrollment is required each quarter in EDSP 699, or such course or courses as the student’s committee chair may direct, until the dissertation is completed.

Dissertation

The dissertation embodies the results of the candidate’s independent investigation. It must contribute to the body of knowledge in the field and draw upon interrelations between education and the cognate discipline. The dissertation must be approved by the candidate’s dissertation committee and, after approval, copies must be filed in the libraries of both institutions. An abstract must be submitted to University Microfilms for publication in Dissertation Abstracts. Candidates should check with the committee chairperson regarding the need for additional copies of the dissertation.

Final Examination

Candidates must pass a final oral examination conducted by the dissertation committee, with major emphasis on the interrelation of the dissertation to existing knowledge in education and in the cognate field. The major emphasis of this examination is on defense of the dissertation.

Advisement

A faculty member on each campus is designated as resident doctoral adviser for all students intending to apply for admission to the Joint Doctoral Program. As soon as the decision is made to seek admission, applicants should consult the adviser for assistance in planning the initial program and for advice about formal procedures required for consideration for admission to the program.

The addresses and phone numbers for the resident doctoral advisers are as follows:

California State University, Los Angeles
Division of Special Education
5151 State University Drive
Los Angeles, California 90032
King Hall C1064
Phone: (213) 343-4400

University of California, Los Angeles
Graduate School of Education
405 Hilgard Avenue
Los Angeles, California 90024
Phone: (213) 825-8343
**COURSES IN EDUCATION**

The School of Education offers courses in several disciplines, each with a distinct four-letter course abbreviation. These disciplines are listed below with the names of the offering divisions. Courses that follow are arranged alphabetically by course abbreviation.

**Discipline Name and Abbreviation**

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<tr>
<th>Discipline Name and Abbreviation</th>
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</tr>
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<td>Special Education (EDSP)</td>
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**Courses in Adult and Continuing Education (EDAC)**

400-Level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the division and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required in a credential program.

507 Adult Illiteracy (4) *(also listed as EDSP 507)*
Nature of illiteracy among adults in the U.S.; impact of illiteracy upon career, social, and life stage development. Implications for program planning.

508 Organization, Administration, and Supervision of Adult Education (4)
Prerequisite: Clear Designated Subjects credential. Procedures for planning and management of academic, vocational, and special programs in community adult schools and regional occupational centers; research on topics related to supervision and coordination strategies.

508 The Community College (3)
Prerequisite: Instructor consent. History, aims and functions, organization, and curriculum of community colleges, with particular emphasis upon current issues, emerging patterns in urban California colleges.

582 Instruction in Community College (4)
Prerequisites: Master's degree or near completion, instructor consent. Specific preparation for directed teaching. Multiple purposes of the community college, community relationships and materials; organization, personnel relationships; qualifying for and securing employment.

589 Directed Teaching in Community College (6)
Prerequisites: EDAC 582, approval of coordinator for community college education. Directed teaching in a community college for selected students holding a master's degree. Graded CR/NC.

**Courses in Counseling (COUN)**

400-Level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the division and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required in a credential program.

501 Behavior Analysis in School, Home, and Agency Settings (4)
Prerequisite: COUN 405 or COUN 406 or PSY 428. Principles and application of behavioral contingency management procedures.

502 Advanced Behavioral Contingency Management in Schools (4)
Prerequisites: 501, instructor consent. Behavioral research, ethics, and recent developments in applying behavioral procedures to school and consulting relationships.

503 Sociological and Cultural Factors in Counseling (4)
Effect of social environment and cultural group membership on behaviors related to counseling; relationship of social and cultural background to counseling theory and techniques to our changing cultures; implications of crosscultural research for counseling practice.

504 Advanced Topical Study in Application of Behavior Analysis to Education (4)
Prerequisite: COUN 502. In-depth study of particular topics within behavior analysis. May be repeated to maximum of 8 units as subject matter changes.

505 Practicum: Counseling (3)
Prerequisites: COUN 405A; admission to a degree or credential program or employment as a counselor. Practical experience preparatory to working with clients; experiences designed to develop students' sensitivity to personal values and needs, and their significance in counseling process. Graded CR/NC.

506 Individual Counseling Strategies (4)
Prerequisites: COUN 405A or 505; instructor consent; prerequisite or corequisite: COUN 447 or 448. Techniques and strategies of
individual counseling that apply to specific settings or derive from specific theories of counseling.

507 Individual Clinical Counseling (3)
Prerequisites: COUN 428, 447, or 448; 406 or 501; 505; 506; instructor consent and adviser; prerequisite or corequisite: COUN 428B. Supervised individual career and personal counseling in the campus guidance clinic. Students implement theory, develop case management strategies, and develop their own counseling behavior. Lecture 1 hour, clinical field experience 3 hours scheduled plus 3 hours arranged. May be repeated once for credit. Graded CR/NC.

510 Counseling Students in Higher Education (4)
Characteristics and problems of American college students: impact of college life on individual, psychosocial aspects of student culture and college environment as well as cultural differences.

511 Long Range Planning in Educational Settings (4)
Long range planning techniques for a systematic study of the future within the specific context of educational institutions and their environments.

512 Strategies for Introducing Futures Studies into Curriculum (4)
Teaching strategies designed to help individuals develop understandings, attitudes, and abilities to deal more effectively with change and with the social responsibilities of living in an information society.

514 Stress Counseling (4)
Prerequisite: COUN 405A. Familiarization with assessment and management techniques related to client stress in a variety of settings such as schools, colleges, and rehabilitation agencies.

515 The Future of Education in a Changing Society (4)
Review and critique of theoretical contributions of leading educational futurists; future oriented perspectives on significant educational issues; curricular and other educational modifications in light of rapid sociocultural change.

516 Group Counseling (4)
Prerequisites: COUN 405A; 406 or 501; 505. Theory and practice of group processes, leadership, membership skills; group skills appropriate to school, college, agency settings; counseling group and task group processes; current research in group theory and practice.

517 Group Counseling: Practicum (3)
Prerequisite: COUN 516. Supervised group counseling in campus' Guidance Clinic or local high school or agency. Lecture 1 hour, clinical experience 3 hours scheduled plus 3 hours arranged. May be repeated once for credit. Graded CR/NC.

520 Introduction to Family Evaluation and Counseling (4)
Prerequisites: COUN 506, 507; corequisite: COUN 523. Introduction to major counseling theories and practices for working with relationships in family contexts; focus on methods of initial family assessment and family counseling with individual family members.

521 Advanced Family and Marriage Counseling (4)
Prerequisite: COUN 520; corequisite: COUN 589. Approaches to joint family counseling and marriage counseling within family systems framework.

522 Family Counseling with Children (4)
Prerequisite: COUN 589 or 586. Theory and methods of counseling children in families; includes assessment and study of child's role in family structure; applications of verbally- and activity-based therapy.
ion counselor and permission of instructor; corequisite: appropriate field work or employment experience as a rehabilitation counselor. Systematic analysis of case data for decision-making, intervention recommendations and methods of expediting the case process in public and private sector rehabilitation systems; strategies for managing caseload pressure.

542AB Medical Aspects of Disability (3, 3)
Review of literature and research implications for rehabilitative counseling of major physical and psychiatric conditions leading to disability; etiology, therapy, and prognosis of rehabilitation.

552 Counseling and Human Sexuality (4)
Prerequisites: COUN 405A or 405B, 450 or 480 or 506 or 508; corequisite: SOC 421. Latest developments in theory and research in area of human sexuality as these pertain to role of counselor.

581 Seminar: Pupil Personnel Services (4)
Prerequisite or corequisite: COUN 586. Organization, administration, and evaluation of pupil personnel services in public elementary and secondary schools or in community colleges.

583 Seminar: Preventive Counseling (4)
Prerequisites: COUN 405A, 503. Primary prevention as a model of counselor service delivery; developmental interventions that simulate affective development through didactic and experiential learning activities.

585 Seminar: School Psychology (4)
Prerequisite: Instructor consent; corequisite: COUN 586P. Current educational approaches to children with learning and developmental problems; observation, discussion, and study of these approaches.

586 Supervised Field Experience in Pupil Personnel Services (2-18)
Prerequisite: Admission by application filed with division by fifth week of preceding quarter and approval by advisor and division associate chair. Supervised field experience in school counseling, higher education counseling, or school psychology involving work with pupils, parents, teachers, administrators, community agencies, and others. Graded CR/NC. May be repeated to maximum of 30 units. Candidates for Services credential with Pupil Personnel Services specialization enroll in an appropriate field experience as follows:

586C Higher Education Counseling
586P Psychometry and School Psychology
586S School Counseling

587 Seminar: Higher Education Counseling (4)
Prerequisites: Advancement to candidacy in Higher Education Counseling option and instructor consent. Examination and investigation of critical issues in higher education counseling. Seminar reports required.

588 Supervised Practice in Rehabilitation Counseling (3-10)
Prerequisites: COUN 505, instructor consent, application filed with division by fifth week of preceding quarter. Supervised professional experience. One unit requires 40 hours of practice. Graded CR/NC. May be repeated to maximum of 15 units.

589 Site Practicum in Marriage, Family, and Child Counseling (3-5)
Prerequisites: COUN 505, 520; corequisite: COUN 521 or 522; admission by application filed with division by fifth week of preceding quarter. Supervised counseling involving work with individuals, children, couples, and families. Graded CR/NC. May be repeated to maximum of 15 units.

590 Special Topics in Counselor Education (1-4)
Prerequisite: Consent of division chair. Intensive study of designated problems in counselor education. May be repeated for credit as subject matter changes.

591 Supervised Field Experience in Applied Behavior Analysis (3)
Prerequisites: COUN 593, application filed with division by fifth week of preceding quarter. Supervised professional experience; one unit requires 40 hours of practice. Graded CR/NC only. May be repeated to maximum of 6 units.

593 Practicum: Staff Development and Consultation (3)
Prerequisites: COUN 502, 586S. Practical experience consulting with parents and teachers regarding behavior management problems and assisting school personnel in providing in-service training. Lecture 1 hour, clinical field experience 3 hours scheduled plus 3 hours arranged. May be repeated once for credit. Graded CR/NC.

597 Graduate Research (1-4)
Prerequisites: COUN 529, instructor consent to act as sponsor, division approval of project prior to registration. Independent research under guidance of faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisites: A B (3.0) grade point average in all graduate work in education, consent of division chair and of instructor to act as sponsor. Independent directed study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.

Courses in Curriculum and Instruction (EDCI)

(For Division of Curriculum and Instruction)

400-Level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the division and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required in a credential program.

504 Optional Systems in Education (4)
Prerequisite: Teaching credential. Trends in alternative education such as continuation education, year-round schools, alternative schools, with specific reference to Southern California.

510 Instructional Materials in Multicultural Education (4)
Prerequisite: Teaching credential. Analysis of instructional materials relating to experiences of minority cultural groups in America; elementary and secondary materials considered. May be repeated to maximum of 8 units.

513 Reading as a Cognitive Process (4)
Prerequisites: EDEL 400 or EDSE 423; teaching credential and experience. Advanced study of issues and programs in reading instruction; application of recent research findings to reading curriculum. Open to both elementary and secondary teachers.

522 Diagnostic and Remedial Reading/Language Arts Procedures (4)
Prerequisite: EDEL 400 or 513 or EDSE 423. Formal and informal diagnostic methods; remedial reading methods within integrated whole-language classroom; instruction for elementary through secondary levels; supervised diagnostic experience.
524 Diagnostic Procedures for Reading/Language Arts Clinicians (5)
Prerequisite: EDCI 522. Advanced diagnosis of severely disabled readers and/or writers; supervised experience in diagnosis and small group instruction with students who need assistance. Lecture 3 hours, laboratory 2 hours.

526 Principles and Practices of Leadership (4)
Prerequisites: Enrollment in School of Education credential or degree program and instructor consent. Training in social sensitivity, behavioral flexibility, interpersonal knowledge and skills; understanding of self and others; effects of leadership in urban society. Sensitivity training laboratory. Meets 5 hours weekly. Credit awarded for only one of EDCI 526 and EDAD 526.

527 Seminar: Issues and Trends in Use of Children’s Literature (4)
Prerequisite: EDFN 500. Issues and trends in use of children’s literature to teach reading, language arts, and other school subjects; analysis of research on literature-based instruction.

528 Creative Behavior: Development and Facilitation (4)
(also listed as COUN 528)
Prerequisites: Teaching credential, teaching experience. Factors that inhibit and facilitate creative thinking directed toward stimulating and productively utilizing creative abilities of students in urban society.

535 Instructional Strategies for Teaching Cultural Awareness (4)
Prerequisites: ANTH 443, EDFN 500. Instructional strategies, materials, resources, and procedures for creating sensitivity to cultural differences and similarities. Nature of stereotypes, misconceptions, and prejudices.

536 Crosscultural Studies Materials for Classroom Use (4)
Collection, analysis, adoption or adaptation, and development of crosscultural studies materials, e.g., Afro-American, Chicano, Filipino-American, for use in classroom.

538 Advanced Design and Evaluation of Reading/Language Arts Programs (4)
Prerequisites: Valid California teaching credential; prerequisite or corequisite: EDCI 541: Reading/language arts program planning and evaluation; articulation of school and district reading/language arts specialist responsibilities; development and maintenance of school-community channels of communication.

539 Instructional Strategies for Inner City Schools (4)
Prerequisite: Teaching credential. Instructional strategies, resources, and organizational patterns designed for teaching children and youth of inner city schools; methods of dealing with typical learning disabilities of inner city school children. Field work included.

540 Application of Therapeutic Procedures in Reading/Language Arts (2)
Prerequisites: EDCI 524, instructor consent. Observation and supervised experience in individual therapeutic procedures with reading clinic pupils who evidence reading disabilities; supervised experience in small group instruction with remedial or disabled; reading/writing clinic students. May be repeated to maximum of 6 units.

541 Field Work in Reading/Language Arts (4)
Prerequisites: EDCI 540, instructor consent. Supervised field experience in organization, administration, and supervision of reading/language arts programs at district or school level.

549 Seminar: Developing English Reading/Language Arts Skills in Bilingual/Crosscultural Individuals (4)
Prerequisite: EDEL 400, EDSE 423, teaching credential, or instructor consent; prerequisite or corequisite: EDCI 453. Procedures and materials for reading instruction as applied to bilingual or crosscultural individuals; research analysis, curriculum design, selecting materials, strategies for developing English reading/language arts skills for culturally/linguistically diverse students.

560 Principles and Practices of Curriculum Development (4)
Curricular trends in historical perspective; sociological change, research in child growth and development, basic philosophies. Objectives, practices, materials, evaluation in curriculum development process.

583 Application of Hypermedia in Instruction (4)
Prerequisites: EDIT 430, teaching credential. Hands-on instruction in uses of hypermedia for teaching in K-12 schools; strategies for use of hypermedia by both teachers and students to enhance instruction.

Courses in Educational Administration (EDAD)

Graduate Courses

Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required in a credential program.

506 Leadership in Education (3)
Prerequisite: EDAD 503. Investigation of principles of educational leadership and organizational theory, including analysis of administrative roles, process, and communication.

507 Educational Planning and Decision Making Models (3)
Educational models; includes interunit and intraunit processes; uses of research and technology in school management; developing, implementing, and evaluating goals to practices.

509 Basic School Law (3)
Legal aspects of education, including rights, duties, and liabilities of employer, employees, parents, and students.

510 School Finance (3)
Prerequisite: EDAD 509. School budgeting, monetary management and accounting, physical resource management and control, financial management of funded programs, resource administration and accounting. Lecture (3 units) required; 10 hours of administrative related field activities required.

515 Social and Political Forces Affecting Education (3)
Social and political forces affecting education, including power structures and other influences.

517 Educational Staff Development and Evaluation (3)
Investigation of principles of educational staff development and evaluation; includes supervision, evaluation, personnel development, and personnel relations for certificated and classified staff.

518 Program Management, Development, and Evaluation (3)
Overview of major trends in curriculum development; management of curriculum K-12; program articulation and evaluation, relationship between human development/learning theory and curriculum management; program implementation and staff development.
526 Principles and Practices of Leadership (3)
Prerequisite: EDAD 506. Training in social sensitivity, behavior flexibility, interpersonal knowledge and skills. Understanding of self and others; effects of leadership pertaining to school administration and supervision. Sensitivity training laboratory 4 hours weekly. Graded CR/NC. Credit awarded for only one of EDCI 526 and EDAD 526.

527 Advanced Educational Management and Evaluation (3)
Prerequisites: EDAD 507, admission to EDAD program. Management and evaluation of educational programs for school administrators. Development of goals and objectives; evaluation of educational outcomes and instructional performance; use of education management systems. Lecture (3 units) required; 10 hours of administrative related field activities required.

533 Legal Research in Educational Administration (3)
Prerequisite: EDAD 509. Effects of laws, legal materials, judicial decisions on school operations. Techniques of legal research and its relation to school administration.

533P Practicum: Legal Research in Educational Administration (3)
Prerequisites: Admission to EDAD program, EDAD 509. Practical experience of applying techniques of legal research to issues of educational administration. Graded CR/NC.

536 Special Seminar: Problems in School Administration (1-5)
Prerequisite: Administrative Services credential. Theoretical and practical aspects of special problems in school administration; specific topic announced in Schedule of Classes. Course does not meet credential requirements. May be repeated to maximum of 5 units.

539 Educational Personnel Administration (3)
Prerequisites: EDAD 507, 509. Principles, practices, and procedures in public school personnel administration; recruitment, selection, placement, evaluation, retention, dismissal, welfare benefits.

539P Practicum: Educational Personnel Administration (3)
Prerequisite: Admission to EDAD program. Practical experience in applying principles, practices, and procedures of school personnel administration; includes recruitment, selection, placement, evaluation, retention, dismissal, benefits. Graded CR/NC.

542 Collective Bargaining in Education (3)
Prerequisite: EDAD 539. Practices and procedures affecting employer-employee relations; emphasis on statutory enactments, underlying principles, contract writing and administration, and desirable practices affecting collective bargaining in education.

542P Practicum: Collective Bargaining in Education (3)
Prerequisite: Admission to EDAD program. Practical experience with practices and procedures affecting employer-employee relations; emphasis on statutory enactments, underlying principles, contract writing and administration, and desirable practices affecting collective bargaining in education. Graded CR/NC.

543 Seminar: School Business and Facility Management (3)
Prerequisites: EDAD 510, 539. Theory and practices of school business and facility management including accounting, purchasing, and supply management; evaluation, maintenance, and function of educational facilities and their interrelationships. Lecture (3 units) required; 10 hours of administrative related field activities required.

543P Practicum: School Business and Facility Management (3)
Prerequisite: Admission to EDAD program. Practical experience with theory and practices of school business and facility management including accounting, purchasing, and supply management; evaluation, maintenance, and function of educational facilities and their interrelationships. Graded CR/NC.

545 Management Information Systems in Educational Administration (3)
Prerequisites: Admission to EDAD program, EDAD 545. Practical experience related to information management systems in educational administration; evaluation of system requirements; management of information management systems in educational administration. Graded CR/NC.

545P Management Information Systems in Educational Administration (3)
Prerequisites: Admission to EDAD program, EDAD 545. Practical experience related to information management systems in educational administration; evaluation of system requirements; management of information management systems in educational administration. Graded CR/NC.

548 Seminar: Supervision of Instructional Programs (3)
Prerequisite: Admission to EDAD program. Development of skills in educational supervision including observations, feedback, conferences, indirect supervision; time logging; review of research; effective staff development.

552 Instructional Leadership in Socioculturally Diverse Schools (3)
Prerequisites: Admission to EDAD program; EDAD 506: 515 or EDFN 537. Theory, research, and practice related to skills, techniques, and attitudes of successful instructional leaders in socioculturally diverse schools.

552P Practicum: Instructional Leadership (3)
Prerequisites: Admission to EDAD program; EDAD 506: 515 or EDFN 537. Practical experience in applying skills, techniques, and attitudes necessary to be a successful instructional leader in socioculturally diverse schools. Graded CR/NC.

554 Seminar: Research and Development in Educational Administration (3)
Prerequisites: EDFN 553, admission to EDAD program, completion of core. Application of basic research tools and techniques in the completion of a research project in educational administration.

555 Advanced Organizational Theory and Development of Schools (3)
Prerequisites: Admission to EDAD program; EDAD 507, 517. Theory of urban school organization and its relation to staff development, operations, and effective practices.

555P Practicum: Advanced Organizational Theory and Development of Schools (3)
Prerequisites: Admission to EDAD program; EDAD 507, 517. Practical experience in applying organizational theory to urban school operation, research on effective schools, and principles of adult learning for staff development. Graded CR/NC.

567 Seminar: Current Issues in Educational Administration (3)
Current issues in educational administration including educational administration trends, legislation, research, and on-going school problems.
Courses in Educational Foundations (EDFN)

557P Practicum: Current Issues in Educational Administration (3)
Prerequisite: Admission to EDAD program. Practical experience in researching possible solutions to issues facing school administrators. Graded CR/NC.

572 Simulation Seminar: Elementary Administration (3)
Prerequisites: Admission to EDAD program, completion of core and required courses in principalship option. Application, through simulation techniques, of administrative and supervisory theories, structures, and methods to administration of elementary schools.

575 Simulation Seminar: Junior High and Middle School Administration (3)
Prerequisites: Admission to EDAD program, completion of core and required courses in principalship option. Application, through simulation techniques, of administrative and supervisory theories, structures, and methods to administration of junior high and middle schools.

578 Simulation Seminar: High School Administration (3)
Prerequisites: Admission to EDAD program, completion of core and required courses in principalship option. Application, through simulation techniques, of administrative and supervisory theories, structures, and methods to administration of high schools.

581ABCD Field Work in Educational Administration (2, 2, 2, 2)
Prerequisite: Division approval. Administrative, supervisory, and curricular experiences at school or district level. Graded CR/NC.

584ABCD Field Work in Central Office Administration and Supervision (3, 3, 3, 3)
Prerequisites: Admission to central office administration option, division approval. Intensive and extensive participation in general school administration; areas of emphasis determined in consultation with adviser. Graded CR/NC.

587ABCD Internship in Educational Administration (3, 3, 3, 3)
Prerequisites: Admission to internship program, approval of both division and school district. Participation in school administration and supervision in school district where student is employed; supervision by on-site administrator and university instructor; regular seminar sessions. Graded CR/NC.

595 Professional Development in Educational Administration (3)
Prerequisites: Admission to EDAD program, completion of core. Knowledge and skills presented by agencies approved for this program. May be repeated to maximum of 6 units. Graded CR/NC.

597 Graduate Research (1-4)
Prerequisites: EDFN 500 or 509, instructor consent to act as sponsor, division approval of project prior to registration. Independent research under guidance of faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisites: A B (3.0) grade point average in all graduate work in education, consent of division chair and of instructor to act as sponsor. Independent directed study of advanced topics in field. regular conferences with sponsor. May be repeated for credit.

400-Level Courses

400-Level courses may be applied toward master's degree requirements except the following, subject to limits established by the division and approval of the graduate adviser: EDFN 413, 414

Graduate Courses

Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required in a credential program.

500 Evaluation of Educational Research (4)
Criteria for evaluation of educational research; critical analysis of representative research reports. Survey of educational research methods, planning a research study, organization of a research report. Credit allowed for only one of EDFN 500, 509, and 553.

506 Comparative Education (4)
Prerequisite: EDFN 414. Selected foreign educational systems within context of their respective cultures. Particular attention to multilingual/multicultural and urban educational issues.

507 History of Education (4)
Prerequisite: Four units chosen from HIST 110ABC or 202AB. Historical analysis of current educational issues with particular attention to multilingual/multicultural and urban education problems.

508 Philosophy of Education (4)
Prerequisite: PHIL 151 or 152 recommended. Selected current philosophies of education and their applications to educative process. Particular attention to philosophical analysis of issues related to multilingual/multicultural and urban education.

510 Advanced Study: Learning Theory and Education (4)
Prerequisite: EDFN 413. Recent significant developments in learning theory with emphasis on classroom application.

520 Urban Education and Politics (4)
Urban power structure and its interaction with education.

525 Educational Sociology (4)
Prerequisite: EDFN 414. Application of insights of social sciences to education in areas of cultural anthropology, sociology, political theory, economics.

530 Advanced Study in Child Development (4)
Prerequisites: EDFN 413, at least one year of teaching experience. Recent significant contributions in child development research and theory; emphasis on implications for education of children.

531 Education of Potential Dropout Students (4)
Prerequisite: Teaching credential or consent of instructor. Identification of characteristics of students at risk of dropping out; review of related knowledge base for educators; introduction of competencies for teachers working with at-risk students, including evaluation of appropriate resource materials.

537 Educational Issues in Metropolitan Areas (4)
School issues in metropolitan areas as related to urbanization, socioeconomic stratification, racial and ethnic differences, desegregation and integration, community relationships, and control of school reform, federal and state aid, school personnel.

540AB Bilingual Education Models (3, 3)
540A: Design and implementation of language objectives for bilingual cross-cultural education based on sociological and psychological aspects of learning: alternative models.
540B: Prerequisite: EDFN 540A. Design, implementation, evaluation of alternative bilingual/crosscultural education programs.

553 Educational Research and Decision Making (4)
Methods and tools of research and evaluation with implications for educational research and decision making. Credit allowed for only one of EDFN 500, 509, and 553.

560 Theories of Teaching and Learning Second Languages (4)
Prerequisite: Teaching credential. Addresses major questions such as how first language acquisition compares with second, which affective/cultural variables have an impact on second language teaching/learning, and which teaching approaches are advantageous.

562 Methods for Teaching Second Languages I (4)
Prerequisite: EDFN 560. Current instructional methods for teaching second languages to students at beginning levels (kindergarten through adult).

563 Methods for Teaching Second Languages II (4)
Prerequisite: EDFN 562. Current instructional methods for teaching second languages to students at intermediate through advanced levels (kindergarten through adult), providing In-Service training for content-area teachers, and materials selection and development.

564 Teaching English as a Second Language for Academic Purposes (4)
Prerequisites: EDFN 560, 562. Teaching techniques for preparing ESL students for university-level academic study.

567 Language Testing (4)
Prerequisite: ENGL 401. Analysis of testing and evaluation in second language programs; emphasis on evaluating effectiveness of teacher-made tests and current standardized test instruments used for assessing language proficiency.

568 Field Work in English as a Second Language (4)
Prerequisite: EDFN 563. Supervised field experience in teaching English as a second language.

570 Educational Sociolinguistics (4)
Prerequisite: ENGL 401. Influences of community, home, and school on language acquisition process. Language policy, social and linguistic change, language variations described; current status assessed; related cultural and pedagogical issues raised.

571 Seminar: Discourse Analysis in the Language Classroom (4)
Prerequisite: ENGL 401. A sociolinguistic analysis of interactional patterns, expectations, and communication strategies in the language classroom; emphasis on current studies with some direct experience in discourse analysis as a legitimate research method.

573 Seminar: Issues in Classroom Second Language Acquisition (4)
Prerequisites: COMD 455, EDFN 500, 560. Current research as it illuminates the second language acquisition process in classrooms.

580 Field Work in Administration and Supervision of Bilingual/Crosscultural Program (3)
Prerequisite: Division approval. Administrative and supervisory experiences dealing with bilingual/crosscultural programs at school or district level. Graded CR/NC.

581 Bilingual/Crosscultural Advanced Field Work (2)
Prerequisites: Teaching credential, approval of bilingual/crosscultural advisory committee. Teaching in bilingual/crosscultural situations; demonstrating effective teaching techniques to teachers and parents; planning and conducting in-service meetings for teachers and paraprofessionals; critiques of existing programs; development of materials. Must be repeated to total of 4 units.

594 Selected Studies in Education (1-5)
Prerequisite: Consent of division chair. Intensive study of designated problems in education. May be repeated for credit as subject matter changes.

597 Graduate Research (1-4)
Prerequisites: EDFN 500 or 509, instructor consent to act as sponsor, division approval of project prior to registration. Independent research under guidance of faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisites: A B (3.0) grade point average in all graduate work in education, consent of division chair and of instructor to act as sponsor. Independent directed study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.

599A Thesis or Project Planning (2)
Prerequisites: EDFN 500 or 509, advancement to candidacy, written approval of graduate adviser. Prior to completion student will have completed tentative outline of thesis or project, petitioned graduate adviser for appointment of a thesis committee, and submitted tentative outline to thesis committee. Graded CR/NC.

599B Thesis or Project (1-5)
Prerequisites: EDFN 599A, written approval of thesis committee chair. Completion of thesis or project under direct supervision of thesis committee. Must be repeated to total of 5 units. Graded CR/NC.

Courses in Elementary Education (EDEL)

400-Level Courses

(Division of Curriculum and Instruction)

511 Science (4)
Prerequisites: EDEL 400, 401, teaching experience.

521 Language Arts (4)
Prerequisites: EDEL 400, 401, teaching experience.

531 Mathematics (4)
Prerequisites: EDEL 400, 401, teaching experience.

541 Social Studies (4)
Prerequisites: EDEL 400, 401, teaching experience.

551 Reading (4)
Prerequisites: EDEL 400, 401, teaching experience.

555 Science (4)
Prerequisites: EDEL 400, 401, teaching experience.

561 Bilingual/Crosscultural Advanced Field Work (2)
Prerequisites: Teaching credential, approval of bilingual/crosscultural advisory committee. Teaching in bilingual/crosscultural situations; demonstrating effective teaching techniques to teachers and parents; planning and conducting in-service meetings for teachers and paraprofessionals; critiques of existing programs; development of materials. Must be repeated to total of 4 units.

564 Teaching English as a Second Language for Academic Purposes (4)
Prerequisites: EDFN 560, 562. Teaching techniques for preparing ESL students for university-level academic study.

567 Language Testing (4)
Prerequisite: ENGL 401. Analysis of testing and evaluation in second language programs; emphasis on evaluating effectiveness of teacher-made tests and current standardized test instruments used for assessing language proficiency.

568 Field Work in English as a Second Language (4)
Prerequisite: EDFN 563. Supervised field experience in teaching English as a second language.

570 Educational Sociolinguistics (4)
Prerequisite: ENGL 401. Influences of community, home, and school on language acquisition process. Language policy, social and linguistic change, language variations described; current status assessed; related cultural and pedagogical issues raised.

571 Seminar: Discourse Analysis in the Language Classroom (4)
Prerequisite: ENGL 401. A sociolinguistic analysis of interactional patterns, expectations, and communication strategies in the language classroom; emphasis on current studies with some direct experience in discourse analysis as a legitimate research method.

573 Seminar: Issues in Classroom Second Language Acquisition (4)
Prerequisites: COMD 455, EDFN 500, 560. Current research as it illuminates the second language acquisition process in classrooms.

580 Field Work in Administration and Supervision of Bilingual/Crosscultural Program (3)
Prerequisite: Division approval. Administrative and supervisory experiences dealing with bilingual/crosscultural programs at school or district level. Graded CR/NC.

581 Bilingual/Crosscultural Advanced Field Work (2)
Prerequisites: Teaching credential, approval of bilingual/crosscultural advisory committee. Teaching in bilingual/crosscultural situations; demonstrating effective teaching techniques to teachers and parents; planning and conducting in-service meetings for teachers and paraprofessionals; critiques of existing programs; development of materials. Must be repeated to total of 4 units.

594 Selected Studies in Education (1-5)
Prerequisite: Consent of division chair. Intensive study of designated problems in education. May be repeated for credit as subject matter changes.

597 Graduate Research (1-4)
Prerequisites: EDFN 500 or 509, instructor consent to act as sponsor, division approval of project prior to registration. Independent research under guidance of faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisites: A B (3.0) grade point average in all graduate work in education, consent of division chair and of instructor to act as sponsor. Independent directed study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.

599A Thesis or Project Planning (2)
Prerequisites: EDFN 500 or 509, advancement to candidacy, written approval of graduate adviser. Prior to completion student will have completed tentative outline of thesis or project, petitioned graduate adviser for appointment of a thesis committee, and submitted tentative outline to thesis committee. Graded CR/NC.

599B Thesis or Project (1-5)
Prerequisites: EDFN 599A, written approval of thesis committee chair. Completion of thesis or project under direct supervision of thesis committee. Must be repeated to total of 5 units. Graded CR/NC.

Courses in Elementary Education (EDEL)

400-Level Courses

(Division of Curriculum and Instruction)

511 Science (4)
Prerequisites: EDEL 400, 401, teaching experience.

521 Language Arts (4)
Prerequisites: EDEL 400, 401, teaching experience.

531 Mathematics (4)
Prerequisites: EDEL 400, 401, teaching experience.

541 Social Studies (4)
Prerequisites: EDEL 400, 401, teaching experience.

551 Reading (4)
Prerequisites: EDEL 400, 401, teaching experience.

555 Science (4)
Prerequisites: EDEL 400, 401, teaching experience.

561 Bilingual/Crosscultural Advanced Field Work (2)
Prerequisites: Teaching credential, approval of bilingual/crosscultural advisory committee. Teaching in bilingual/crosscultural situations; demonstrating effective teaching techniques to teachers and parents; planning and conducting in-service meetings for teachers and paraprofessionals; critiques of existing programs; development of materials. Must be repeated to total of 4 units.

564 Teaching English as a Second Language for Academic Purposes (4)
Prerequisites: EDFN 560, 562. Teaching techniques for preparing ESL students for university-level academic study.

567 Language Testing (4)
Prerequisite: ENGL 401. Analysis of testing and evaluation in second language programs; emphasis on evaluating effectiveness of teacher-made tests and current standardized test instruments used for assessing language proficiency.

568 Field Work in English as a Second Language (4)
Prerequisite: EDFN 563. Supervised field experience in teaching English as a second language.

570 Educational Sociolinguistics (4)
Prerequisite: ENGL 401. Influences of community, home, and school on language acquisition process. Language policy, social and linguistic change, language variations described; current status assessed; related cultural and pedagogical issues raised.

571 Seminar: Discourse Analysis in the Language Classroom (4)
Prerequisite: ENGL 401. A sociolinguistic analysis of interactional patterns, expectations, and communication strategies in the language classroom; emphasis on current studies with some direct experience in discourse analysis as a legitimate research method.

573 Seminar: Issues in Classroom Second Language Acquisition (4)
Prerequisites: COMD 455, EDFN 500, 560. Current research as it illuminates the second language acquisition process in classrooms.

580 Field Work in Administration and Supervision of Bilingual/Crosscultural Program (3)
Prerequisite: Division approval. Administrative and supervisory experiences dealing with bilingual/crosscultural programs at school or district level. Graded CR/NC.
Courses in Higher Education (EDHI)

Doctoral Courses

610 Research, Issues, and Practices in College and University Teaching (4)
Prerequisite: Post-master's degree standing. Current research, issues, and practices in college and university teaching; instructional planning and preparation; student and program evaluation; non-instructional responsibilities of faculty.

611 Seminar: Supervision in College and University Teaching (4)
Prerequisite: Post-master's degree standing. Review of research and practices in higher education supervision of students; discussion of college/university student field and laboratory teaching assignments and evaluation.

612 Program Proposal, Development, and Evaluation in Higher Education (4)
Prerequisite: Post-master's degree standing. Procedures for needs assessment, development, evaluation of special programs/projects; development of proposals and grant applications.

Courses in Instructional Technology (EDIT)

Classified graduate standing is required for admission. Except that postbaccalaureate students may enroll in 500-level courses that are required for a credential program.

525 Instructional Materials in Secondary Schools: Computer Software (4)
Prerequisite: EDIT 430. Analysis of computer software relating to teaching of secondary school subjects.

551 Advanced Multimedia Techniques (3)
Prerequisite: Teaching experience. Critical analysis of principles of selection and use of multimedia in education and training; programming, production, practicality.

552 Instructional Media Design (3)
Prerequisite: EDIT 453. Diagnosis, prescription, and design of mediated instruction with practice in application of learning theory to media design and instrumentation.

553 Administration of Instructional Media Services (4)
Prerequisite: EDIT 451, 551, teaching experience. Organization and administration of audiovisual services; practices and trends in reference to operational problems, budgeting, evaluation and procurement of equipment and materials, personnel, and physical facilities.

554A Video Technology in Education (1) (4)
Prerequisite: EDIT 451. Educational value and utilization of video technology in instructional settings; review and application of research: exploration of future uses of the medium. Lecture 3 hours, laboratory 2 hours.
554B Video Technology in Education II (4)  
Prerequisite: EDIT 554A. Advanced utilization of video technology in instructional/training settings, practical experience in advanced instructional video production techniques, teleconferencing, editing, and design. Lecture 3 hours, laboratory 2 hours.

555 Simulation and Gaming (3)  
Prerequisite: EDIT 451 or 453. Analysis of techniques and procedures in simulation and game design, development and evaluation, current research and theory.

556 Role of the Computer Specialist in Education (4)  
Prerequisite: EDIT 430. Running a computer laboratory in a school: evaluating, selecting, and maintaining software libraries and hardware. Computer based education systems that assist teachers in integrating computers into their curricula.

557 Computer Assisted and Managed Instruction (4)  
Prerequisites: EDIT 430, 456, 482. Fundamentals of information systems, data processing systems, and current research for the design, development, and implementation of computer assisted and managed instruction. Lecture 3 hours, laboratory 2 hours.

560 Telecommunications in Education (4)  
Prerequisite: EDIT 430. Survey of telecommunications hardware, software, curriculum materials, school-based projects and research in educational applications of telecommunications.

570 Research in Instructional Technology (4)  
Prerequisites: EDFN 500; EDIT 430. Analysis of research in instructional technology. An action research project, including an extensive review of the literature, is required.

571 Instructional Applications  
570S Special Education Applications

Courses in Library Science (LIBR)  
(Division of Educational Foundations and Interdivisional Studies)

400-Level Courses  
All 400-level courses may be applied toward master’s degree requirements, subject to limits established by the division and approval of the graduate adviser.

Graduate Course  
Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required for a credential program.

501 Computer Applications in School Library Media Centers (4)  
Prerequisites: EDIT 430, LIBR 401. Uses of computers in school library media centers, library administration software programs, data base management, word processing, and utilization of computer-assisted instructional programs.

Courses in Secondary Education (EDSE)  
(Division of Curriculum and Instruction)

400-Level Courses  
All 400-level courses may be applied toward master’s degree requirements except the following, subject to limits established by the division and approval of the graduate adviser: EDSE 401, 421, 441, 442AB

Graduate Courses  
Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required for a credential program.

520 Evaluation of Teaching Competencies in Metropolitan Schools (4)  
Prerequisite: Two or more years of teaching experience. Emphasis on identification of teaching competencies of prospective and practicing teachers, procedures for assessment and improvement of competencies, and program implications for preservice and In-Service education of metropolitan teachers.

521 Teaching Effectiveness: Research and Application (4)  
Prerequisites: EDFN 500, at least one year of teaching experience. Analysis of teaching effectiveness, review of research application of research findings to classroom instruction, and evaluation of instruction.

523 Current Procedures and Materials in Teaching Secondary School Subjects in Metropolitan Community (4 each)  
Prerequisites: EDSE 421, teaching experience. Analysis and evaluation of current problems and trends in teaching secondary school subject fields; review and interpretation of current research; investigation of new materials and approaches.

523B Business Communication  
Prerequisite: OSBE 301

523S Social Studies

524 Instructional Materials in Secondary Schools (4)  
Prerequisites: Teaching credential. Survey, analysis, and utilization of secondary instructional materials for English, foreign languages, mathematics, natural and social sciences, and other secondary school subjects. Students may focus on a specific credential subject.

591 Problems of Metropolitan Secondary School Students (4)  
Prerequisites: Secondary credential, secondary teaching experience. Consideration of typical and special problems of adolescents, with emphasis on their perception of such problems; investigation of selected aspects of adolescent attitudes, interests, and behavior.

594 Selected Studies in Secondary Education (1-4)  
Prerequisite: Consent of division chair. Intensive study of designated problems in secondary education. May be repeated for credit as subject matter changes.

595 Seminar: Metropolitan Secondary Education (4)  
Prerequisite: Instructor consent or completion of or concurrent enrollment in final units of program for Master of Arts degree. Option in Secondary Teaching. Identification and analysis of persistent problems as they affect metropolitan secondary education.

597 Graduate Research (1-4)  
Prerequisites: EDFN 500 or 509, instructor consent to act as sponsor, division approval of project prior to registration. Independent research under guidance of faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1-4)  
Prerequisites: A B (3.0) grade point average in all graduate work in education, consent of division chair and of instructor to act as sponsor. Independent directed study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.
599B Thesis or Project (1-5)
Prerequisites: EDFN 599A, written approval of thesis committee chair. Completion of thesis or project under direct supervision of thesis committee. Must be repeated to total of 5 units. Graded CR/NC.

Courses in Special Education (EDSP)

400-Level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the division and approval of the graduate adviser: EDSP 403, 407, 469

Graduate Courses

Classified graduate standing is required for admission, except that postbaccalaureate students may enroll in 500-level courses that are required in a credential program.

500 Seminar: Special Education (4)
Prerequisite: EDSP 400. Study of research relating to psychological and educational problems of exceptional children, introduction to methodological problems in developing, conducting, and reporting research in special education.

501 Problems and Practices in Special Education (3)
Prerequisite: EDSP 400. Problems of organization, administration, and supervision of special educational programs; evaluation of recent proposed needed legislation; review of current literature. For advanced students and administrators.

502 Educational Measurements in Special Education (4)
Prerequisites: EDFN 409, EDSP 400, basic courses in student's special field. Interpretation and use of test and other measurements for study of the exceptional child. May not be substituted for the credential requirement of administration of individual psychological tests.

503 Field Work in Special Education (3-6)
Prerequisite: Consent of division chair. Supervised field training in problems relating to instruction, supervision, administration, evaluation, and guidance of exceptional children. Special assignments in schools, diagnostic centers, and community agencies. May be repeated to a maximum of 9 units.

504 Selected Studies in Special Education (3-5)
Prerequisite: EDSP 400. Intensive study of designated problems in special education. May be repeated for credit as subject matter changes.

505 Sexuality and Sex Education of Exceptional Individuals (4)
Investigation and comparison of sex behavior in normal and exceptional individuals including orthopedically, visually, hearing, and learning disabled; sexuality, social development and family-life education of the exceptional. Graded CR/NC.

506 Education and Psychology of Handicapped Adolescents and Young Adults (4)
Prerequisites: EDSP 400, PSY 412B. Current issues and problems in education and treatment of handicapped adolescents and young adults emphasizing etiology, services, relevant education approaches, and interpersonal relationships.

507 Adult Illiteracy (4) (also listed as EDSE 507)
Nature of illiteracy among adults in the U.S.; impact of illiteracy upon career, social, and life stage development. Implications for program planning.

508 Computer Applications in Special Education (4)
Prerequisites: EDIT 452, EDSP 403. Microcomputer technology compatible with curriculum and data management strategies for exceptional individuals; hardware and software, modifications; examination of relevant research.

510 Resource Specialist in Special Education (4)
Prerequisites: Graduate standing and/or current enrollment in special education credential or school psychology program. Problems of serving individuals with exceptional needs in regular school program; advanced skills that enhance remedial process in special education; consultation, coordination of services for exceptional pupils.

511 Seminar: Issues and Strategies for Multicultural Special Education Students (4)
Prerequisites: EDSP 402; 408 or COMD 455. Special education for multicultural/bilingual exceptional students, issues in nondiscriminatory assessment, instructional strategies for multicultural/bilingual special education students.

512 Seminar: Collaborative Consultation in Special Education (4)
Prerequisites: COUN 501; EDSP 402; also recommended: COUN 502, EDSP 510. Theoretical framework for consultation; collaborative and consultative processes in special education; role of the special educator in improving curriculum and instruction; staff development and parent education.

515 Planning Programs for Exceptional Infants and Young Children (4)
Prerequisites: EDSP 415, 416. A study of research and issues related to assessment, planning, and implementation (intervention) of services for at-risk exceptional infants and young children.

521 Communication Skills for Deaf: Theory (5)
Prerequisites: EDEL 400, 401; 402 or EDSE 401. Instruction of the deaf; analysis of research in speech and language development, speech reading, auditory training, elementary school subjects; practical applications at preschool, primary, intermediate, and advanced levels.

522 Communication Skills for Deaf: Educational Planning (5)
Prerequisite: EDSP 521. Instruction of the deaf; analysis of research in speech and language development, speech reading, auditory training, elementary school subjects; practical applications at preschool, primary, intermediate, and advanced levels.

523 Communication Skills for Deaf: Research (3)
Prerequisite: EDSP 522. Methods of instructing the deaf. Research in speech and language development. Modification of elementary and secondary school subjects for hearing impaired.

524 Current Trends in Educating the Hearing Impaired (4)
Prerequisite: Specialist credential in Communicatively Handicapped. Innovative methods and issues in the area of hearing impairment; topics covered will include communication advances, early intervention, legislative issues, and parent education.

525 Language and Speech for Profoundly Deaf Child (4)
Prerequisite: Instructor consent. Methods used in development and remediation of receptive and expressive language for
profundely deaf children of preschool, primary, and intermediate academic levels.

540 Affective Development of Exceptional Individuals (4)
Prerequisite: EDSP 400. Relationship of affective factors, e.g., receiving, responding, valuing, self concept of learner and teacher, to cognitive growth of exceptional individual. Emphasis on affective area applicable to all exceptionalities, as approached through current research related to exceptional individuals.

541 Advanced Studies in Gifted Education (4)
Prerequisite: EDSP 441. Exploration of issues; research trends, and current practices for gifted individuals in educational programs.

550 The Learning Handicapped Individual (4)
Prerequisite: EDSP 400. Problems of management and treatment of children with learning and behavior disorders; emphasis on learning problems, emotionality, organicity, and techniques in psychoeducational habilitation.

554 Educating Individuals with Serious Emotional Disturbances (4)
Prerequisites: EDSP 550, instructor consent. Educational management and instruction of individuals with serious emotional disturbances; emphasis on identification, assessment, educational planning, and delivery of educational services, in public and private educational settings, to individuals with serious emotional disturbances.

555 Advanced Problems in Education of Learning Handicapped (4)
Prerequisites: EDSP 450, 550. Identification and analysis of problems and current issues relating to education of learning handicapped, including learning disabled, educable retarded, and behavior disordered.

560 Seminar: Education of Individuals with Physical Disabilities (4)
Prerequisite: EDSP 462. Identification and analysis of problems and current issues relating to the education of individuals with physical disabilities and those with multiple disabilities; review of research on specific disabilities.

565 Advanced Problems in Education of Visually Handicapped (4)
Prerequisite: Completion of requirements for credential for teaching visually handicapped. (May be taken concurrently with EDSP 407.) Identification and analysis of problems and current issues relating to education of visually handicapped; review of recent research specifically related to visual impairment and its application to educational practice.

568 Adaptive Living Skills for Exceptional Individuals (4)
Current issues and research in daily living and adaptive living skills for visually handicapped, deaf, physically and multihandicapped, including concept formation, spatial development, psychomotor skills, orientation and mobility.

575 Supervised Field Training in Orientation and Mobility for the Blind (5)
Prerequisite: EDSP 476. (Open only to students in orientation and mobility training program.) Clinical training in orientation processes and independent mobility techniques for blind; development and application of methods, materials, and individualized instructional units in meeting needs of the blind. Seminar 2 hours, supervised field training 9 hours per week.

576 Orientation and Mobility: Visually Impaired Multihandicapped Practicum (4)
Prerequisite: EDSP 476. Teaching orientation and mobility to visually impaired multihandicapped individuals, emphasizing modification of normal instructional strategies and techniques. Lecture 2 hours, field practicum 6 hours per week.

580 Biomedical Aspects of Mental Retardation (4)
Prerequisite: PSY 406. Etiological and developmental aspects of mental retardation from biological and medical points of view.

581 Vocational Rehabilitation of Mentally Retarded (3)
Prerequisites: PSY 406 (may be taken concurrently), instructor consent. Principles, problems, and methods of vocational development; work evaluation and adjustment, job training, and placement of retarded youth and adults. Individual projects.

582 Problems of Severely Handicapped Individuals (4)
Prerequisite: EDSP 481. Issues and research relevant to current practices in education of severely handicapped individuals, including trainable mentally retarded, profoundly retarded, autistic, and other developmentally disabled individuals. Independent field work required.

585 Organization and Administration of Special Education Programs (4)
Prerequisite: Consent of divisions of Special Education, of Administration and Counseling. Planning and financing of special education programs. Organization of local, state, federal, and private agencies related to education of exceptional children.

597 Graduate Research (1-4)
Prerequisites: EDFN 500 or 509, instructor consent to act as sponsor. Division approval of project prior to registration. Independent research under guidance of faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisites: A.B. (3.0) grade point average in all graduate work in education, consent of division chair and of instructor to act as sponsor. Independent directed study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.

599B Thesis or Project (1-5)
Prerequisites: EDFN 599A, written approval of thesis committee chair. Completion of thesis or project under direct supervision of thesis committee. Must be repeated to total of 5 units. Graded CR/NC.

Doctoral Courses

600 Seminar: Current Practices and Innovative School Programs (4)
Prerequisite: Post-master's degree standing. Current issues in special education, including educational trends, legislation, emphasis on research and ongoing school problems. Variable content; may be repeated for credit.

602 Practicum: Program Development and Evaluation (1-3)
Prerequisite: Post-master's degree standing. Development of proposals and grant applications for submission to federal, state, and private agencies for research, training, and public school program funding. May be repeated for credit.

603 Research in Performance of Exceptional Individuals (4)
Prerequisite: Post-master's degree standing. Experimental and theoretical literature on learning style and performance of exceptional individuals.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>620</td>
<td>Research: Hearing Impaired (4)</td>
<td>Instructor consent. Intensive review of research relating to developmental processes in hearing impaired students and their relationship to language proficiency and school achievement.</td>
</tr>
<tr>
<td>640</td>
<td>Research in Education of Gifted (4)</td>
<td>EDSP 400, 440. Intensive study of current research about gifted, talented, and creative; factors in intellectual development; experimental school programs.</td>
</tr>
<tr>
<td>650</td>
<td>Research on Psychological Characteristics of Handicapped Adolescents and Young Adults (4)</td>
<td>Post-master's degree standing. Theories and research on handicapped adolescents and young adults; emphasis on learning and behavior disorders.</td>
</tr>
<tr>
<td>680</td>
<td>Research on Severely Handicapped (4)</td>
<td>Post-master's degree standing. Intensive study of medical research, public policy, social adjustment and integration research program development, evaluation, design, and other current issues that create an impact on individuals with severe handicaps.</td>
</tr>
<tr>
<td>698</td>
<td>Graduate Directed Study (1-8)</td>
<td>Consent of an instructor to act as sponsor. Independent directed study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.</td>
</tr>
</tbody>
</table>
| 699         | Doctoral Dissertation (4-8)                      | Advancement to candidacy for Ph.D. degree, consent of an instructor to act as sponsor, division approval of topic prior to registration. Continuous enrollment required while student is working on dissertation.
Departments within the School

Department of Civil Engineering
Department of Electrical and Computer Engineering
Department of Mechanical Engineering
Department of Technology
SCHOOL OF ENGINEERING AND TECHNOLOGY

INFORMATION CENTERS

Engineering
Engineering and Technology A242
Phone: (213) 343-4514

Technology
Engineering and Technology A341
Phone: (213) 343-4550

GRADUATE PROGRAMS

Degrees Offered

The school offers graduate programs leading to master's degrees in the following five fields.

- Master of Science degree in Civil Engineering
- Master of Science degree in Electrical Engineering
- Master of Science degree in Mechanical Engineering
- Master of Arts degree in Industrial and Technical Studies
- Master of Arts degree in Vocational Education

ENGINEERING

The objective of the Master of Science degree programs in Civil, Electrical, and Mechanical Engineering is to prepare students for employment in design, research, and development positions in industry, for positions as engineering teachers, and for further study toward doctoral degrees.

Admission to Engineering Programs

In addition to university requirements for admission to graduate study, applicants must possess the equivalent of the Bachelor of Science degree currently specified by Cal State L.A. for the field of engineering in which they wish to specialize and a 2.75 grade point average in the last 90 quarter units attempted in the undergraduate program. Applicants who do not meet the above admission requirements may be admitted at the discretion of the department in which the proposed graduate degree is offered. Applicants who earned less than a 2.5 grade point average in the last 90 units attempted in undergraduate status will not be admitted to a master's degree program in Engineering without clear and compelling evidence of current capacity for satisfactory performance in such a program.

Consultation with a department graduate adviser is required before any courses are attempted, to determine if deficiencies exist in undergraduate preparation. Students should provide transcripts of all undergraduate work, which will be retained by the adviser. MATH 402A, entitled Advanced Mathematics for Engineers and Physicists I, is required for all graduate programs in Engineering if not previously completed.

TECHNOLOGY

The Department of Technology offers a Master of Arts degree in Industrial and Technical Studies and a Master of Arts degree in Vocational Education.

In addition to the graduate degree programs, the Department of Technology also offers a credit certificate program in Electronics Technology. This program is described in the School of Engineering and Technology chapter. General regulations governing all credit certificate programs are included in the Undergraduate Study and Graduate and Postbaccalaureate Study chapters.
School of Engineering and Technology

DEPARTMENT OFFICE
Engineering and Technology A211
Phone: (213) 343-4450

Master of Science Degree in Civil Engineering

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 24 in 500-level courses. A thesis or comprehensive examination is required.

The advice and approval of a civil engineering graduate adviser must be obtained before enrolling in any course.

Area of Specialization (24–37 units):
Select a minimum of 24 units in 500-level engineering courses. At least 20 units must be in civil engineering courses from the following list, must be in a coherent group of courses that fulfills the student’s objectives, and must have the approval of adviser and department chair.

CE 560 Structural Mechanics III (4)
CE 561 Advanced Structural Design (4)
CE 562 Reinforced Concrete Design II (4)
CE 563 Matrix Computer Analysis of Structures (4)
CE 564 Numerical Methods in Structural Analysis (4)
CE 565 Dynamics of Structures (4)
CE 566 Soil Mechanics II (4)
CE 567 Foundations II (4)
CE 569 Earth Structures (4)
CE 570 Soil Dynamics (4)
CE 571 Highway Design (4)

CE 572 Plates and Shells (4)
CE 574 Traffic Flow Analysis (4)
CE 575 Urban Transportation Planning (4)
CE 577 Bridge Engineering (4)
CE 581 Modeling Techniques in Hydraulic Engineering (4)
CE 582 Statistical Hydrology (4)
CE 583 Hydrology II (4)
CE 586 Open Channel Hydrodynamics (4)
CE 587 Hydraulics II (4)
CE 588 Hydraulic Structures (4)
CE 589 Coastal Engineering (4)
ME 502 Theory of Elasticity (4)

Electives in Engineering (0–13 units):
Select from 400- and 500-level courses.

Electives in Related Fields (8–21 units):
Select a minimum of 8 units, other than in civil engineering, related to program. These will usually be in mathematics. MATH 402A (4 units) must be included in these electives unless already completed.

Comprehensive Examination or Thesis (0, 4 units):
ENGR 596 Comprehensive Examination (0) or
ENGR 599 Thesis (4)

Students who select the comprehensive examination (ENGR 596) should expect to take it the quarter they complete all course work on their program, and must comply with school and departmental requirements.
School of Engineering and Technology

DEPARTMENT OFFICE
Engineering and Technology A316
Phone: (213) 343-4470

Master of Science Degree in Electrical Engineering

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 24 units in 500-level courses. A thesis or comprehensive examination is required.

Minimum scores of 400 on the Quantitative section of the GRE general test and 500 on the subject test in Engineering are required for classified graduate standing.

The advice and approval of an electrical engineering graduate adviser must be obtained before enrolling in any course.

Area of Specialization (24–37 units):
Select a minimum of 24 units in 500-level engineering courses; at least 16 units must be selected from the following electrical engineering courses:

- EE 530 Linear Systems Analysis (4)
- EE 531AB Principles of Communication Theory I, II (4, 4)
- EE 532 Detection of Signals in Noise (4)
- EE 533 Computer Methods in Power Systems (4)
- EE 534 Power Systems Stability (4)
- EE 536ABC Solid State Electronics I, II, III (4, 4-4)
- EE 538 Linear and Nonlinear Control Systems Theory (4)
- EE 544 Digital Systems Design (4)
- EE 547AB Computer System Architecture (4, 4)
- EE 548 Digital Sampled Data and Logic Control Systems Theory (4)

Electives in Engineering (0–13 units of 400- or 500-level courses):

Electives in related fields (8–21 units):

- MATH 402A (4 units) must be included in these electives unless already completed.

Typical courses are:

- MATH 402B, 474, 580
- PHYS 426AB, 510AB

Comprehensive Examination or Thesis (0, 4 units):

- ENGR 596 Comprehensive Examination (0)
- ENGR 599 Thesis (4)

Students who select the comprehensive examination (ENGR 596) should expect to take it the quarter they complete all course work on their program, and must comply with school and departmental requirements.
MECHANICAL ENGINEERING

School of Engineering and Technology

DEPARTMENT OFFICE
Engineering and Technology A205
Phone: (213) 343-4490

Master of Science Degree in Mechanical Engineering

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 24 in 500-level courses.
A thesis or comprehensive examination is required.
The advice and approval of a mechanical engineering graduate adviser must be obtained before enrolling in any course. MATH 402A is required of all students who have not already completed this course.

Area of Specialization (24-45 units):
Students must choose in advance a group of courses that fulfills their objectives. Approval of adviser and department chair is required. Suggested groupings of courses that cover programs in thermo-fluid systems design and mechanical systems design are available from advisers.

Select a minimum of 24 units in 500-level engineering courses; at least 16 units must be selected from following list of mechanical engineering courses:

- ME 501A Advanced Mechanics of Particles (4)
- ME 501B Advanced Mechanics of Rigid Bodies (4)
- ME 502 Theory of Elasticity (4)
- ME 503 Design of Mechanical Systems and Products (4)
- ME 504 Thermal Radiation (4)
- ME 505 Heat Conduction (4)
- ME 506 Heat Convection (4)
- ME 508 Compressible Fluids (4)
- ME 509 Viscous Fluids and Boundary Layer Theory (4)
- ME 511 Vibrational Analysis II (4)
- ME 512 Advanced Topics in Thermodynamics (4)
- ME 521 Dynamic Systems Analysis (4)
- ME 522 Optimal Control of Mechanical Systems (4)
- ME 525 Process Mass and Heat Transfer (4)
- ME 528 Metalforming Science and Applications (4)
- ME 529 Machining Science and Applications (4)

Electives (0-21 units):
Select from 400- and 500-level courses in engineering or related fields, with adviser approval.

Comprehensive Examination or Thesis (0-4 units):
- ENGR 596 Comprehensive Examination (0)
- ENGR 599 Thesis (4)

Students who select the comprehensive examination (ENGR 596) should expect to take it the quarter they complete all course work on their program, and must comply with school and department requirements.
School of Engineering and Technology

DEPARTMENT OFFICE
Engineering and Technology A341
Phone: (213) 343-4550

The Department of Technology offers Master of Arts degrees in Industrial and Technical Studies and in Vocational Education.

Master of Arts Degree in Industrial and Technical Studies

This program is designed to increase the effectiveness of industry professionals and industrial arts teachers in their professional service area by allowing specialization in two of three areas of interest, as follows:

- Teaching: emphasizes advanced subject matter content.
- Supervision: emphasizes supervision, mainly department level.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have a baccalaureate in a related field with combined course work and industrial experience acceptable to the department.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses.

Required Courses (13 units):

- TECH 485 History, Philosophy, and Organization of Industrial Education (3)
- TECH 487 Seminar: Comprehensive Career Education for Industrial Studies and Vocational Education (3)
- TECH 502 Modern Industry (3)
- EDFN 500 Evaluation of Educational Research (4)

Areas of Interest (20-24 units)

Select two of the following areas and complete 10-12 units in each:

Teaching (10-12 units)

With adviser approval, complete TECH 506 (4 units), TECH 583 (4 units), and 2-4 units of technology or education courses to total 10-12 units.

Technical (10-12 units)

With adviser approval, complete 10-12 units in 400-level TECH courses; TECH 598 may be included for 3-6 units.

Supervision (10-12 units)

With adviser approval, complete TECH 486 (3 units), TECH 505 (4 units), and 3-5 units of technology, business, or education courses to total 10-12 units; may include second enrollment in TECH 486.

Additional Electives (select 3-7 units in technology and related fields with adviser approval)

- Thesis or Project (5 units):
- TECH 599AB Thesis or Project (2, 3)

Master of Arts Degree in Vocational Education

This program for vocational educators offers a choice of two areas:

- Technical or Professional: An in-depth study of advanced work in the vocational educator's teaching specialty.
- Vocational Education Leadership: Course work and field experience designed to prepare professional educators for work as administrators, supervisors, or coordinators in secondary schools, community colleges, or specialized vocational schools, and for training or related responsibilities in industry.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have a baccalaureate in vocational education or a combination of teaching and industrial experience and sufficient course work toward the vocational credential to provide a foundation for advanced study in the graduate degree program.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses.

Required Courses (13 units):

- TECH 485 History, Philosophy, and Organization of Industrial Education (3)
- TECH 486 Seminar: Vocational Education (3)
- TECH 502 Modern Industry (3)
- EDFN 500 Evaluation of Educational Research (4)

Areas of Interest (20-22 units)

Select one of the following specializations:

Technical or Professional (20-22 units)

With adviser approval, select 13-16 units of technical or professional courses in the vocational teacher's subject matter specialization. Include 4-9 units of TECH 598 for a total of 20-22 units.

Vocational Education Leadership (20-22 units)

With adviser approval, select TECH 505 for 4 units, TECH 598 for 6-9 units, and 7-12 units in technology, education, and business for a total of 20-22 units.

Electives (select 5-7 units outside technology with adviser approval)

- Thesis or Project (5 units):
- TECH 599AB Thesis or Project (2, 3)

Credit Certificate Programs

The Department of Technology offers several credit certificate programs which are open to all students who meet stated prerequisites. These programs are listed with the department's bachelor's degree curriculum in the Undergraduate Programs section of this catalog. Regulations governing all certificate programs are found in the Undergraduate Study and the Graduate and Postbaccalaureate Study chapters.
565 Dynamics of Structures (4)
Prerequisite: CE 460 or ME 414. Free vibrations, forced vibrations and transient response of structures and structural components having one and many degrees of freedom; damping and inelastic action, earthquakes and nuclear blasts; dynamic resistance of structures; limit design; design for dynamic loads.

566 Soil Mechanics II (4)
Prerequisite: CE 467. Stress and strain in soil mass, equilibrium and movement of soil water, soil consolidation, settlement, and soil strength.

567 Foundations II (4)
Prerequisite: CE 467. Earth-pressure problems and problems of deep excavation; design of anchored bulkheads, cofferdams, piles under lateral loads, underpinning.

569 Earth Structures (4)
Prerequisite: CE 467. Factors influencing design, explorations for foundations and construction processes, compactions, stability analysis, seepage control, earth dams.

570 Soil Dynamics (4)
Prerequisite: CE 467. Dynamic properties of soils, vibratory effects on foundations, earthquake effects on foundations, dynamic stability of earth structures.

571 Highway Design (4)
Prerequisite: CE 471. Practical application of American Association of State Highway and Transportation Officials (AASHTO) policy on design controls; capacity analysis for uninterrupted flow, weaving section and ramps; functional design procedures in development of an interchange.

572 Plates and Shells (4)
Prerequisites: CE 402, 460. Equations of bending of thin elastic plates, energy method; approximate and numerical methods; theory of shells with application to tanks, roofs, and pressure vessels.

574 Traffic Flow Analysis (4)
Prerequisite: CE 370. Measurements and analysis of traffic flow characteristics: speed, density, flow, headway; statistical data analysis, time-space diagrams, traffic flow models, queue theory, shock wave analysis, traffic models applications.

575 Urban Transportation Planning (4)
Prerequisite: CE 370 for Civil Engineering majors; permission of department chair for others. Travel forecasting, data requirements, collection methods, trip generation and distribution models; modal split analysis, trip assignment, plan alternatives and evaluation methodology.

577 Bridge Engineering (4)
Prerequisites: CE 461, 462. Design of steel, concrete, and timber bridges, piers, and abutments; American Association of State Highway and Transportation Officials (AASHTO) specifications; criteria for earthquake resistant design of bridges; geometry, safety, economics, and aesthetics.

581 Modeling Techniques in Hydraulic Engineering (4)
Prerequisite: CE/ME 303. Dimensional analysis; similarity law and hydraulic, coastal, and estuarine models; mathematical models.
582 Statistical Hydrology (4)  

583 Hydrology II (4)  
Prerequisite: CE 485. Space-time characteristics and mechanics of rainfall, surface run-off and infiltration. Theory of drainage basin dynamics. Low stream flow.

586 Open Channel Hydraulics (4)  
Prerequisites: CE 387, MATH 215. Flow types, flow profile computations; design of channels and transition structures; unsteady flow.

587 Hydraulics II (4)  
Prerequisite: CE 387. Unsteady flow in pipes, wave motion, sediment transportation, and coastal engineering.

588 Hydraulic Structures (4)  
Prerequisite: CE 387. Hydraulic structures for impounding, conveying, and controlling water.

589 Coastal Engineering (4)  
Prerequisite: CE 387. Fundamentals of water waves and their effects. Diffraction, reflection, and refraction; impulsively generated waves; effect of waves on coastal structures.

Courses in Electrical Engineering (EE)  

400-level Courses  

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses  

Classified graduate standing is required for admission.

530 Linear Systems Analysis (4)  
Prerequisites: EE 430, MATH 402A. Review of transform methods; inverse transforms by contour integration; state space variable, properties of network functions and network parameters, time domain analysis; positive real functions.

531A Principles of Communication Theory I (4)  
Prerequisites: EE 420, MATH 402A. Comparative analysis of the following information transmission systems: AM, FM, PPM, and PCM. Introduction to statistical methods in analysis of information transmission systems.

531B Principles of Communication Theory II (4)  
Prerequisites: EE 531A, MATH 402A. Transmission and filtering of random signals. Causal and noncausal filters; communication of digital data in the presence of noise.

532 Detection of Signals in Noise (4)  
Prerequisite: EE 531A. Techniques for detection of both known and unknown signals with unknown parameters in presence of noise. Discussion of hypothesis testing, likelihood functions, receiver configurations, and basic estimation theory.

533 Computer Methods in Power Systems (4)  
Prerequisites: EE 332, 433, ENGR 490. Algorithms for formulation of network matrices; short-circuit studies on computers; iterative solutions of algebraic and differential equations; digital computer techniques for load flow.

534 Power System Stability (4)  
Prerequisites: EE 438A, 533. Steady state and transient stability of electric power systems; stability criterion; emphasis on digital computer techniques as applied to stability problems of electric power systems.

536A Solid State Electronics I (4)  
Prerequisite: EE 436. Characteristics of solid state electronic devices; fabrication of discrete devices and integrated circuits; analysis and characteristics of integrated circuits.

536B Solid State Electronics II (4)  
Prerequisite: EE 536A. Continuation of Solid State Electronics I; characteristics and applications of integrated circuits.

536C Solid State Electronics III (4)  
Prerequisite: EE 536B. Applications of integrated circuits; metal-oxide-silicon devices; optoelectronics.

538 Linear and Nonlinear Control Systems Theory (4)  
Prerequisites: EE 438B, MATH 402A. Analysis and design of advanced control systems, including optimal control; use of computer in control systems.

544 Digital Systems Design (4)  
Prerequisite: EE 449. Advanced study of selected topics in digital systems design. Design automation techniques; digital simulation; computer elements.

547AB Computer System Architecture (4, 4)  
Prerequisite: EE 449. (EE 547A is prerequisite to 547B.) Computer algorithms and the arithmetic processor, central control and microprogramming, input-output processors, data communication processors and time-sharing systems.

548 Digital Sampled Data and Logic Control Systems Theory (4)  
Prerequisites: EE 244, 438B, MATH 402A. Analysis and design of linear and nonlinear sampled data, digital and logic control systems. Numerical control and on-line computer control systems.

Courses in Mechanical Engineering (ME)  

400-level Courses  

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses  

Classified graduate standing is required for admission.

501A Advanced Mechanics of Particles (4)  
Prerequisite: ME 421. Analytical approach to kinematics and dynamics of particles in three-dimensional space.

501B Advanced Mechanics of Rigid Bodies (4)  
Prerequisite: ME 501A. Analytical approach to kinematics and dynamics of rigid bodies in three-dimensional space.

502 Theory of Elasticity (4)  
Prerequisite: ME 402. Stress-strain relations, yield criteria, equations of linear elasticity, energy methods, boundary value problems, thermostress, nonlinear elasticity, applications in structural and machine design.

503 Design of Mechanical Systems and Products (4)  
Prerequisite: ME 414. Principles of design; value criteria; manufacturing and human factors; computer-aided simulation and analysis; synthesis of design.
504 Thermal Radiation (4)
Prerequisite: ME 406. Thermodynamics and physics of thermal radiation and its interactions with matter; formulation and solution of radiative transfer equations for surfaces and enclosures by means of exact, approximate, and numerical methods; applications to selected topics.

505 Heat Conduction (4)
Prerequisite: ME 406. Fundamentals of heat conduction, solution of steady and unsteady state heat conduction problems by means of exact, approximate, and numerical methods; applications to selected topics.

506 Heat Convection (4)
Prerequisite: ME 406. Development of equations describing fluid motion and heat convection. Analytical and experimental results for free and forced convection and for changes in phase.

508 Compressible Fluids (4)
Prerequisite: ME 408. One-dimensional gas dynamics; shock waves in supersonic flow; flow in ducts and nozzles; applications to high speed aerodynamics; multidimensional and unsteady frictionless flow; solution by small perturbation theory and method of characteristics.

509 Viscous Fluids and Boundary Layer Theory (4)
Prerequisites: ME 408, MATH 402A. Derivation of Navier-Stokes and boundary layer equations. Solutions for very slow, viscous motion, incompressible and compressible laminar boundary layers, introduction to turbulent boundary layer theory. Heat transfer and aerodynamic applications.

511 Vibrational Analysis II (4)
Prerequisite: ME 411. Analysis of multidegree of freedom systems, continuous, systems, random vibrations, analog and digital computer applications.

512 Advanced Topics in Thermodynamics (4)
Prerequisite: ME 426 or CHEM 414. Advanced study of selected topics in thermodynamics with applications to engineering systems; review of current literature.

521 Dynamic Systems Analysis (4)
Prerequisite: ME 409 or 410. Dynamic behavior of physical systems; input-output and state space representation of linear continuous-time and discrete-time systems; controllability, observability, and stability of linear systems; examples of mechanical, thermal, fluid, and electrical systems.

522 Optimal Control of Mechanical Systems (4)
Prerequisite: ME 410 or 422. State space representation of continuous-time and discrete-time dynamic systems, problem statement of optimal control and performance index, maximum principle, design of linear optimal control systems, mechanical system examples.

525 Process Mass and Heat Transfer (4)
Prerequisite: ME 415. Principles of mass transfer by diffusion, evaporation and condensation, phase equilibrium, two-phase flow. Applications such as cooling towers, heat exchangers, vaporizers, evaporators, reboilers, distillation, and desalination.

528 Metalforming Science and Applications (4)
Prerequisite: ME 414. Nature and purpose of metalworking theory, determination of working loads, drawing and rolling of flat slabs and strips, deep drawing, extrusion, forging, punching and piercing, friction and lubrication in metalworking.

529 Machining Science and Applications (4)
Prerequisite: ME 414. Deformation of materials during machining; mechanics of orthogonal cutting; cutting fluids; tool wear; tool life and machinability; vibrations in cutting; practical machining operations; and modern machining processes.

Courses in Technology (TECH)

400-level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission.

502 Modern Industry (3)
Prerequisites: An acceptable undergraduate major in Industrial Arts or Vocational Arts, or comprehensive background of industrial experience, and TECH 300AB. Advanced study of growth, development, and organization of industry; new materials and processes. Problems of industry with significance for present social order.

505 Supervision and Organization of Vocational Education (4)
Responsibilities of supervisor for organizing vocational education programs at various levels and for improving instruction. May be repeated to maximum of 8 units with permission of instructor.

506 Seminar: Industrial Education (4)
Investigation of teaching problems in industrial education. Individual and group studies of special problems.

507 Seminar: Industrial Studies (4)
Prerequisite: TECH 502. Advanced study of developments in industrial materials, processes, machines, and equipment; relationships between industrial developments and society; emphasis on research and investigation.

583 Development, Use, and Evaluation of Industrial Education Instructional Materials (4)
Advanced course in development, use, and evaluation of instructional materials, with emphasis on three-dimensional teaching aids, charts, slides, and displays.

598 Graduate Directed Study (1–4)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated to maximum of 9 units.

599A Thesis or Project (1–2)
Prerequisites: Instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis or project. Must be repeated to total of 2 units. Graded CR/NC.

599B Thesis or Project (1–3)
Prerequisites: TECH 599A, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis or project. Must be repeated to total of 3 units. Graded CR/NC.
SCHOOL OF HEALTH AND HUMAN SERVICES

Departments and Programs within the School

- Child Development Program
- Department of Communication Disorders
- Department of Criminal Justice
- Department of Family Studies and Consumer Sciences
- Department of Health Science
- Department of Nursing
- Department of Physical Education and Recreation/Leisure Studies
The Master of Arts degree in Child Development strengthens professional competence and prepares individuals for various leadership positions as child development specialists. Students may coordinate degree requirements with those for Early Childhood Specialist instructional and Community College teaching credentials.

**Master of Arts Degree**

**Admission to the Program**
- Baccalaureate in Child Development or a closely related academic field from a fully accredited college or university.
- Minimum 2.75 grade point average in last 90 quarter units or minimum B (3.0) grade point average in undergraduate major.
- Written statement of personal and professional goals received by the Child Development graduate adviser before the student registers in the program.
- Initial interview with the Child Development graduate adviser prior to registration in the program.
- In addition to meeting university requirements for admission to graduate study, applicants must have completed course work in theories of human development, issues and trends in child development, and early childhood education

Students without a baccalaureate in Child Development or a closely related field must complete a 27-unit prerequisite program before being admitted to the Child Development master's degree program. Further information is available in the Child Development office.

**Requirements for the Degree (45 units)**
A total of 45 units is required, with at least 23 in 500-level courses.

**Required Core (27 units)**
- CHDV 500 Studying Children: Theories and Methods (3)
- CHDV 501 Infants and Toddlers—Development and Care (4)
- CHDV 502 Children Under Transitory Stress (4)
- CHDV 503 Working with Parents (4)
- CHDV 504 Research Methods with Children and Families (4) or FSCS 577 Research Concepts in Home Economics (4) or PSY 411 Research Methodology in Psychology (4)
- CHDV 505 Selected Topics in Current Issues and Research in Child Development (4) or EDFN 530 Advanced Study in Child Development (4)
- CHDV 595 Graduate Field Work (4)

**Electives (12–18 units)**
Students must select electives in consultation with a graduate adviser to give meaningful support to their professional goals. The development of an individualized interdisciplinary program is essential. Students also seeking an Early Childhood Specialist credential should select electives in consultation with a credential adviser and a Child Development graduate adviser.

**Comprehensive Examination or Thesis or Project (0 or 6 units):**
- CHDV 596 Comprehensive Examination (0) or CHDV 599 Thesis or Project (6)

A comprehensive examination or a thesis or project is required for the master's degree. Students should expect to take the comprehensive examination (CHDV 596) the quarter they complete all course work on their program or thereafter and must comply with school and departmental requirements. A thesis or project, in lieu of the comprehensive examination, may be undertaken upon approval by a Child Development faculty committee.

**Courses in Child Development (CHDV)**

**400-level Courses**

With graduate adviser approval, appropriate 400-level courses in Child Development-related disciplines may be applied toward requirements for the master's degree.

**Graduate Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV 500</td>
<td>Studying Children: Theories and Methods</td>
<td>3</td>
</tr>
<tr>
<td>CHDV 501</td>
<td>Infants and Toddlers—Development and Care</td>
<td>4</td>
</tr>
<tr>
<td>CHDV 502</td>
<td>Children Under Transitory Stress</td>
<td>4</td>
</tr>
<tr>
<td>CHDV 503</td>
<td>Working with Parents</td>
<td>4</td>
</tr>
<tr>
<td>CHDV 504</td>
<td>Research Methods with Children and Families</td>
<td>4</td>
</tr>
<tr>
<td>FSCS 577</td>
<td>Research Concepts in Home Economics</td>
<td>4</td>
</tr>
<tr>
<td>PSY 411</td>
<td>Research Methodology in Psychology</td>
<td>4</td>
</tr>
<tr>
<td>CHDV 505</td>
<td>Selected Topics in Current Issues and Research</td>
<td>4</td>
</tr>
<tr>
<td>EDFN 530</td>
<td>Advanced Study in Child Development</td>
<td>4</td>
</tr>
<tr>
<td>CHDV 595</td>
<td>Graduate Field Work</td>
<td>4</td>
</tr>
</tbody>
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</thead>
<tbody>
<tr>
<td>CHDV 596</td>
<td>Comprehensive Examination</td>
<td>0</td>
</tr>
<tr>
<td>CHDV 599</td>
<td>Thesis or Project</td>
<td>6</td>
</tr>
</tbody>
</table>

A comprehensive examination or a thesis or project is required for the master's degree. Students should expect to take the comprehensive examination (CHDV 596) the quarter they complete all course work on their program or thereafter and must comply with school and departmental requirements. A thesis or project, in lieu of the comprehensive examination, may be undertaken upon approval by a Child Development faculty committee.
504 Research Methods with Children and Families (4)
Prerequisite: EDFN 452. Current research issues about children and families; ways of studying children and families: observation, interviews, questionnaires, testing; ethical issues; development and implementation of pilot research study.

505 Selected Topics in Current Issues and Research in Child Development (4)
In-depth study of selected topics related to current issues and research in child development.

595 Graduate Field Work (1–4)
Prerequisites: CHDV 501, 502, 503; instructor consent to act as supervisor. Supervised practical experience in specialized community settings related to infant care, parent education, and/or hospitalization; assignments on individual basis. May be repeated to maximum of 8 units. Graded CR/NC.

596 Graduate Directed Study (1–4)
Prerequisites: CHDV 501, 502, 503; instructor consent to act as supervisor. Independent directed study of advanced topics in the field of child development; regular conferences with instructor. May be repeated to maximum of 8 units.

599 Thesis or Project (1–6)
Prerequisites: CHDV 504; advancement to candidacy; instructor consent to act as adviser; approval of topic prior to registration for thesis or project. Independent research resulting in thesis or project. Must be repeated to maximum of 6 units. Graded CR/NC.
COMMUNICATION DISORDERS

School of Health and Human Services

DEPARTMENT OFFICE
King Hall B106
Phone: (213) 343-4690

The Department of Communication Disorders offers the Master of Arts degree in Communicative Disorders with options in Audiology and Speech-Language Pathology; the Clinical-Rehabilitative Services Credential in Audiology; the Clinical-Rehabilitative Services Credential in Language, Speech, and Hearing; the Clinical-Rehabilitative Services Credential in Language, Speech, and Hearing with Special Class Authorization; and the Certificate in Rehabilitative/School Audiology.

Master of Arts Degree in Communicative Disorders

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must satisfy specific department requirements before admission to the program. These include: a baccalaureate in Communicative Disorders or equivalent, a minimum 2.75 grade point average in the last 90 quarter units attempted prior to the baccalaureate (or department approval) or a B (3.0) grade point average in 14 units of postbaccalaureate qualifying courses completed at Cal State L.A.

For the Audiology option, applicants must have a minimum cumulative score of 900 on the Verbal and Quantitative sections of the GRE General Test. For the Speech-Language Pathology option, completion of COMO 458 or equivalent is required. Students must meet with a faculty advisor before beginning the graduate program.

Completion of the following courses or their equivalents is prerequisite to admission to the program: COMO 400, 401, 402, 403 or 407, 420, 425, 429, 450, 458, 460AB, 461, 462AB, 470-478AB. Completion of COMO 469 is prerequisite to the program.

Students who meet the equivalency requirements must earn, or have earned, a grade of C or higher in each of the core courses: COMO 400, 401, 402, 450, 460AB, 461, and 482AB. Repetition of core courses is limited to a maximum of two attempts in the entire core.

Students are required to meet personal and professional standards established by the department which include, but are not limited to: acceptable speech, language, and hearing; the capacity to accept instruction; willingness to assume professional responsibility for the welfare of clients; and the ability to relate well to clients, peers, and faculty. Students also must possess qualities of personal integrity, maturity, and sound professional judgment.

Requirements for the Degree (minimum 45 units)

A minimum of 45 units is required, with at least 29 in 500-level courses. A comprehensive examination or a thesis is required.

Audiology Option (45 units)

The Audiology option prepares students to serve in various professional settings including:

- clinical settings such as hospitals, medical offices, private practice, rehabilitation clinics that require a master's degree or equivalent with emphasis in clinical audiology, licensure in audiology issued by the state Board of Medical Quality Assurance, and the Certificate of Clinical Competence (CCC) in Audiology issued by the American Speech-Language Hearing Association.
- public school settings as a rehabilitative/school audiologist which requires a Clinical-Rehabilitative Services credential for School Audiologist.
- private school settings as a rehabilitative audiologist which requires a certificate in rehabilitative audiology plus a master's degree or equivalent in rehabilitative audiology.

Required Courses (33 units):

- COMD 500 Seminar: Amplification Systems for Audiologists (4)
- COMD 503 Seminar: Bone Conduction, Masking, Impedance Audimetry (4)
- COMD 504 Seminar: Audiological Psychoacoustics (4)
- COMD 505 Seminar: Special Auditory Tests—Sensorineural Hearing Losses (4)
- COMD 506 Seminar: Special Auditory Tests—Central Auditory Problems (4)
- COMD 510 Seminar: Audiological Instrumentation (4)
- COMD 541 Clinical Procedures in Hearing Evaluation (1)
- COMD 542 Clinical Practice in Hearing Evaluation (2, 2-2, 2)

Electives (12 units):

With adviser assistance, select courses from the following that meet requirements for California licensure and the ASHA Certificate of Clinical Competence (CCC) in audiology, including specified course work and clinical practicum in speech-language pathology which should be completed early in the program.

- COMD 407 Pediatric Audiology (3)
- COMD 409 Industrial Audiology (3)
- COMD 507 Seminar: Special Auditory Tests-Auditory Brainstem Responses (4)
- COMD 547 Seminar: Audiology (3)
- EDSP 400 Education and Psychology of Exceptional Individuals (4)
- EDSP 420 Implications of Communication Handicaps (4)
- EDSP 430 Sign Language (3)
- EDSP 525 Language and Speech for Profoundly Deaf Child (4)

Comprehensive Examination or Thesis (0, 6 units):

- COMD 596 Comprehensive Examination (0)
- COMD 599 Thesis (6)

In conference with an adviser, students must elect complete either the comprehensive examination or a thesis.

A. Comprehensive Examination (0)

B. Thesis (6 units)

Students must have adviser approval, be advanced to candidacy, and be enrolled in COMD 599 during the quarters the thesis is in progress. COMD 599 units may be substituted for elective units, but not for required courses in audiology.
• **Speech-Language Pathology Option** *(minimum 45 units)*

The Speech-Language Pathology option prepares students to work in various professional settings including:

- clinics, hospitals, medical offices, or private practice as a speech-language pathologist which requires a master's degree or equivalent with emphasis in speech-language pathology, licensure in speech-language pathology issued by the state Board of Medical Quality Assurance, and the Certificate of Clinical Competence (CCC) issued by the American Speech-Language Hearing Association
- public and private schools as a language-speech and hearing specialist which requires a Clinical-Rehabilitative Services credential in Language, Speech, and Hearing
- public school programs for the severely language handicapped which requires a Clinical-Rehabilitative Services credential in Language, Speech, and Hearing with Special Class Authorization.

**Required Courses (33 units):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMO 560</td>
<td>Seminar: Natural Acquisition of Language</td>
<td>(4)</td>
</tr>
<tr>
<td>COMO 570AB</td>
<td>Graduate Studies in Stuttering</td>
<td>(3, 3)</td>
</tr>
<tr>
<td>COMO 571</td>
<td>Seminar: Language Disorders in Children</td>
<td>(4)</td>
</tr>
<tr>
<td>COMO 572</td>
<td>Seminar: Voice Disorders</td>
<td>(4)</td>
</tr>
<tr>
<td>COMO 573</td>
<td>Seminar: Articulation Disorders</td>
<td>(4)</td>
</tr>
<tr>
<td>COMO 574</td>
<td>Seminar: Neuropathologies of Speech and Language</td>
<td>(4)</td>
</tr>
<tr>
<td>COMO 576</td>
<td>Advanced Diagnostic Procedures in Communication Disorders</td>
<td>(3)</td>
</tr>
<tr>
<td>COMO 578</td>
<td>Advanced Clinical Procedures in Communication Disorders</td>
<td>(2, 2)</td>
</tr>
</tbody>
</table>

**Elective (4-6 units):**

In consultation with adviser, select one course (4-6 units) from the following: COMO 454, 598, 599.

**Additional Electives (6-8 units):**

Select courses appropriate for California licensure and ASHA certification with adviser approval.

**Comprehensive Examination or Thesis (0-6 units):**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>COMD 596</td>
<td>Comprehensive Examination</td>
<td>(6)</td>
</tr>
<tr>
<td>COMD 599</td>
<td>Thesis</td>
<td>(6)</td>
</tr>
</tbody>
</table>

Students should expect to take the comprehensive examination (COMD 596) the quarter they complete all course work on their program and must comply with school and departmental requirements. Students should consult a speech-language pathology adviser about the thesis option, and should enroll in COMD 599 during the quarter the thesis is being undertaken.

**Clinical-Rehabilitative Services Credential in Audiology**

**Requirements for the Credential (114 units):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMD 400</td>
<td>Peripheral Hearing Mechanism</td>
<td>(3)</td>
</tr>
<tr>
<td>COMD 401</td>
<td>Audiological Acoustics</td>
<td>(2)</td>
</tr>
<tr>
<td>COMD 402</td>
<td>Pure-Tone Audiometry</td>
<td>(3)</td>
</tr>
<tr>
<td>COMD 403</td>
<td>Speech Audiometry</td>
<td>(3)</td>
</tr>
<tr>
<td>COMD 407</td>
<td>Pediatric Audiology</td>
<td>(3)</td>
</tr>
<tr>
<td>COMD 420</td>
<td>Rehabilitative Audiology</td>
<td>(3)</td>
</tr>
<tr>
<td>COMD 425</td>
<td>Management of Hearing Impaired Child</td>
<td>(3)</td>
</tr>
<tr>
<td>COMD 429</td>
<td>Clinical Practice in Aural Rehabilitation</td>
<td>(1)</td>
</tr>
<tr>
<td>COMD 450</td>
<td>Introduction to Communication Disorders</td>
<td>(4)</td>
</tr>
<tr>
<td>COMD 460AB</td>
<td>Speech and Language Acquisition in Children</td>
<td>(3, 3)</td>
</tr>
<tr>
<td>COMD 461</td>
<td>Descriptive Phonetics</td>
<td>(4)</td>
</tr>
<tr>
<td>COMD 462AB</td>
<td>Speech-Language Science</td>
<td>(3, 3)</td>
</tr>
<tr>
<td>COMD 470</td>
<td>Clinical Processes in Communication Disorders</td>
<td>(4)</td>
</tr>
<tr>
<td>COMD 471</td>
<td>Language Disorders in Children</td>
<td>(4)</td>
</tr>
<tr>
<td>COMD 472</td>
<td>Voice and Articulation Disorders</td>
<td>(4)</td>
</tr>
<tr>
<td>COMD 476</td>
<td>Diagnostic Procedures in Speech and Language Disorders</td>
<td>(3)</td>
</tr>
<tr>
<td>COMD 500</td>
<td>Seminar: Amplification Systems for Audiologists</td>
<td>(4)</td>
</tr>
<tr>
<td>COMD 503</td>
<td>Seminar: Bone Conduction, Masking, Impedance Audiometry</td>
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<td>COMD 504</td>
<td>Seminar: Audiological Psychoacoustics</td>
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<tr>
<td>COMD 505</td>
<td>Seminar: Special Auditory Tests--Sensorineural Hearing Losses</td>
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<tr>
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<td>Seminar: Special Auditory Tests-Central Auditory Problems</td>
<td>(4)</td>
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<td>Seminar: Special Auditory Tests-Auditory Brainstem Responses</td>
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<td>COMD 542</td>
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<td>(2, 2, 2-2)</td>
</tr>
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<td>COMD 547</td>
<td>Seminar: Audiology</td>
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</tr>
<tr>
<td>EDS 400</td>
<td>Education and Psychology of Exceptional Individuals</td>
<td>(4)</td>
</tr>
<tr>
<td>EDS 420</td>
<td>Implications of Communication Handicaps</td>
<td>(4)</td>
</tr>
<tr>
<td>EDS 430</td>
<td>Sign Language</td>
<td>(3)</td>
</tr>
<tr>
<td>EDS 431A</td>
<td>Laboratory: Sign Language, Beginning</td>
<td>(1)</td>
</tr>
<tr>
<td>EDS 525</td>
<td>Language and Speech for Profoundly Deaf Child</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**Clinical-Rehabilitative Services Credential in Language, Speech, and Hearing**

This credential requires 118 units of which 45 units must be completed in the fifth year, including the 500-level courses listed below. Students must earn a C (3.0) grade point average in all 500-level courses required for the credential to receive university recommendation for issuance of the credential.

**Requirements for the Credential (118 units):**

<table>
<thead>
<tr>
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<tbody>
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<td>Voice and Articulation Disorders</td>
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<td>COMD 476</td>
<td>Diagnostic Procedures in Speech and Language Disorders</td>
<td>(3)</td>
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<td>COMD 500</td>
<td>Seminar: Amplification Systems for Audiologists</td>
<td>(4)</td>
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<td>COMD 510</td>
<td>Seminar: Audiological Instrumentation</td>
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<tr>
<td>COMD 541</td>
<td>Clinical Procedures in Hearing Evaluation</td>
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<td>COMD 542</td>
<td>Clinical Practice in Hearing Evaluation</td>
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<td>EDS 526</td>
<td>Clinical Procedures in Communication Disorders</td>
<td>(2, 2)</td>
</tr>
<tr>
<td>EDS 527</td>
<td>Speech-Language Science</td>
<td>(3, 3)</td>
</tr>
<tr>
<td>EDS 528</td>
<td>Role of Speech-Language Pathologist in Professional Settings</td>
<td>(1)</td>
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<td>EDS 541</td>
<td>Clinical Processes in Communication Disorders</td>
<td>(4)</td>
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<td>EDS 542</td>
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<td>EDS 547</td>
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<td>EDS 548</td>
<td>Clinical Procedures in Communication Disorders</td>
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<tr>
<td>EDS 549</td>
<td>Language, Speech, and Hearing Service in Public Schools</td>
<td>(1, 1)</td>
</tr>
<tr>
<td>COMD 560</td>
<td>Seminar: Natural Acquisition of Language</td>
<td>(4)</td>
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<tr>
<td>COMD 570AB</td>
<td>Graduate Studies in Stuttering</td>
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<tr>
<td>COMD 571</td>
<td>Seminar: Language Disorders in Children</td>
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<tr>
<td>COMD 572</td>
<td>Seminar: Voice Disorders</td>
<td>(4)</td>
</tr>
<tr>
<td>COMD 573</td>
<td>Seminar: Articulation Disorders</td>
<td>(4)</td>
</tr>
</tbody>
</table>
503 Seminar: Bone-conduction, Masking, Impedance Audiometry (4)
Prerequisite: COMO 403. Advanced audiological theories, principles, and techniques; bone-conduction, effective masking and impedance audiometry for differentiating conductive from sensorineural hearing losses; laboratory projects included.

504 Seminar: Audiological Psychoacoustics (4)
Prerequisite: COMO 503. Relationships among acoustic stimulus parameters, aural physiological activities, and psychological sensations including loudness, pitch, adaptation, and differences limens; laboratory projects with audiometric equipment included.

505 Seminar: Special Auditory Tests—Sensorineural Hearing Losses (4)
Prerequisite: COMO 503. Advanced audiological theories, principles, and techniques; psychoacoustic hearing tests for differentiating cochlear from retrocochlear lesions; practice in administering special tests and interpreting test results.

506 Seminar: Special Auditory Tests—Central Auditory Problems (4)
Prerequisites: COMO 504, 505. Advanced audiological theories, principles, and techniques; psychoacoustic hearing tests for differentiating peripheral from central hearing disorders; practice in administering advanced special tests and interpreting test results.

507 Seminar: Special Auditory Tests—Auditory Brainstem Responses (4)
Prerequisites: COMO 504, 505. Advanced audiological theories, principles, and techniques; physiological tests for measuring electric brainstem responses to acoustic stimuli: electromyostagmography, practice with brainstem audiometer and ENG equipment.

510 Seminar: Audiological Instrumentation (4)
Prerequisite: COMO 505. Audiological instrumentation, calibration standards; calibration instruments and procedures for earphones, bone vibrators, loudspeakers, pure tones, speech, masking noise; practice in calibrating audiometers.

541 Clinical Procedures in Hearing Evaluation (1)
Prerequisites: COMO 503. Practice in administering hearing tests, interpreting test results, and writing audiological reports before working with patients in the Hearing Clinics.

542 Clinical Practicum in Hearing Evaluation (2)
Prerequisites: first quarter: COMO 541; second quarter: COMO 407, 500, one quarter of clinic practicum; third quarter: COMO 505, minimum B (3.0) grade point average in clinic courses completed prior to enrollment, two quarters of clinic practicum; fourth quarter: COMO 506, 507, three quarters of clinic practicum; fifth quarter for school audiology credential: COMO 429, four quarters of clinic practicum. Sequential progression of supervised clinical practice in hearing evaluations; on-campus Hearing Clinic for first two quarters, off-campus medical center for next two quarters, public school for fifth quarter.

547 Seminar: Audiology (3)
Prerequisite: COMO 506. Basic statistical procedures for measurement of central tendency, correlation, and significance; research design in the context of current scientific studies on hearing; individual research project using audiometric equipment.

560 Seminar: Natural Acquisition of Language (4)
Prerequisites: COMO 460AB or 456. Research, methods, major issues in language acquisition in early childhood; methods for
studying semantic, syntactic, pragmatic, and phonological systems, principally among English-speaking children.

570AB Graduate Studies in Stuttering (3, 3)

571 Seminar: Language Disorders of Children (4)
Prerequisites: COMD 470, 471. Theory, research, and methodology in assessment of and intervention in various kinds of language disorders in children; multiethnic, multicultural considerations.

572 Seminar: Voice Disorders (4)
Prerequisite: COMD 472. Theory, research, methodology in diagnosis and treatment of various kinds of functional and organic voice disorders.

573 Seminar: Articulation Disorders (4)
Prerequisite: COMD 472. Theory, research, methodology in assessing and intervening in various kinds of articulation disorders.

574 Seminar: Neuropathologies of Speech and Language (4)
Prerequisite: COMD 462B. Theory, research, and methodology in diagnosis and treatment of various kinds of speech and language disorders associated with neuropathologies.

576 Advanced Diagnostic Procedures in Communication Disorders (3)
Prerequisite: COMD 476. Tests, methods, and procedures used in assessing individuals with speech-language disorders with special emphasis on integration of results in case studies; multiethnic, multicultural considerations. Independent supervised advanced clinical practicum. Lecture 2 hours, laboratory 3 hours.

578 Advanced Clinical Procedures in Communication Disorders (2)
Prerequisite: COMD 478AB. Advanced clinical procedures in assessment of and intervention with communicatively handicapped children and adults, independent supervised clinical experience in on- or off-campus sites. May be repeated to maximum of 8 units.

585 Seminar: Advanced Language Techniques for Severe Language Handicapped Children (4)
Recommended corequisite: EDSP 407 (SLH). Advanced methods course for students seeking Clinical-Rehabilitative Services credential in Language, Speech, and Hearing with Special Class Authorization; classroom programming for language-disordered children ages 3–18 including behavior management, classroom organization, curriculum adaptation to meet individual language needs.

598 Graduate Directed Study (1–4)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.

599 Thesis (1–6)
Prerequisites: Advancement to candidacy; instructor consent to act as sponsor; departmental approval of topic before registration; additional prerequisite for Audiology option: COMD 547. Independent research resulting in a thesis; oral defense of thesis required. May be repeated to maximum of 6 units. Graded CR/NC.
Two Master of Science degrees are offered by the Department of Criminal Justice. The Criminalistics degree offers a specialization in the application of science to the criminal justice process; the Criminal Justice degree includes an Administration option that emphasizes management skills and an education option that prepares students for specialized teaching assignments.

**Admission to the Program**

Application to both the Department of Criminal Justice and the university is required, on forms available from the department's graduate admissions committee. Transcripts from all colleges and universities attended must be submitted with the application to the department's graduate admissions committee at the same time that the university application is filed with the Admissions Office.

A minimum 2.75 grade point average is required in the last 90 quarter units of undergraduate study, and a minimum B (3.0) in all upper division course work in the undergraduate major and all prerequisite and corequisite courses. Applicants who have not completed an undergraduate major in a criminal justice area or whose grade point average is below that required for regular admission into the program may be admitted under certain circumstances in conditional status at the discretion of the department's graduate admissions committee.

**Master of Science Degree in Criminalistics**

The Criminalistics program is built on undergraduate preparation in chemistry and provides technical training in crime laboratory skills, with special emphasis on development of skilled experts able to function in a variety of scientific fields.

In addition to university requirements for admission to graduate study, applicants must have a baccalaureate in chemistry from an accredited college or university, or a baccalaureate in a related scientific field with a minimum of 36 quarter units in chemistry, including 12–15 units in organic chemistry.

The following courses in criminal justice or their equivalents must have been completed prior to admission or may be taken concurrently. These courses are not included in the 45 units required for the master's degree.

- **CRIM 126 Concepts of Criminal Law (4)**
- **CRIM 221 Legal Aspects of Evidence (4)**
- **CRIM 235 Elements of Investigation (4)**
- **CRIM 362 Investigative Photography (4)**
- **CRIM 385 Personal Identification Systems (4)**
- **CRIM 461 Physical Evidence (4)**

**Requirements for the Degree (45 units)**

A total of 45 units is required, with at least 23 in 500-level courses.

**Required Courses (32 units):**

- **CRIM 551-553 Advanced Criminalistics I–III (4, 4, 4)**
- **CRIM 554 Identification of Modern Drugs (4)**
- **CRIM 555 Questioned Document Analysis (4)**
- **CRIM 556 Seminar: Special Problems in Criminalistics (4)**
- **CRIM 557 Legal Medicine in Criminalistics (4)**
- **CRIM 599 Thesis (4)**

**Electives (13 units):**

Select 5 units in criminal justice and 8 units in related fields with adviser approval.

**Master of Science Degree in Criminal Justice**

The Criminal Justice program provides advanced study in theory and application of methods in administration and management of criminal justice agencies, with emphasis on those whose function is law enforcement.

In addition to university requirements for admission to graduate study, applicants must possess a baccalaureate from an accredited college or university, with acceptable undergraduate preparation in police administration or criminal justice. Undergraduate preparation must include the following courses or equivalents:

- **CRIM 126, 221, 401, 404, 428, 437**
- **ECON 309 or EDFN 452 or PSY 302**
- **POLS 403, 405, SOC 480**

**Requirements for the Degree (45 units)**

A total of 45 units is required, with at least 23 in 500-level courses.

**Required Courses (24 units):**

- **CRIM 501 Seminar: Administration of Justice (4)**
- **CRIM 506 Seminar: Comparative Criminal Justice Administration (4)**
- **CRIM 538 Seminar: Criminal Justice Problems (4)**
- **CRIM 581 Law Enforcement Bibliography and Research (4)**
- **CRIM 582 Criminal Justice Resource Allocation (4)**
- **CRIM 599 Thesis (4)**

**Options**

- **Option in Criminal Justice Administration (21 units)**
  - **Required Courses (16 units):**
    - **POLS 460 Foundations of Public Administration (4)**
    - **POLS 461 Dynamics of Urban Administration (4)**
    - **POLS 560 Seminar: Public Administration (4)**
    - **POLS 561 Seminar: State and Local Government and Administration (4)**
  - **Electives (5 units):**
    - Select courses in criminal justice with adviser approval.

- **Option in Criminal Justice Education (21 units)**
  - **Required courses (15 units):**
    - **COUN 503 Sociological and Cultural Factors in Counseling (4)**
    - **COUN 510 Counseling Students in Higher Education (4)**
    - **EDAC 581 The Community College (3)**
    - **EDAC 582 Instruction in Community College (4)**
  - **Electives (6 units):**
    - Select courses in criminal justice with adviser approval.
Courses in Criminal Justice (CRIM)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser: CRIM 499

Graduate Courses

Classified graduate standing is required for admission.

501 Seminar: Administration of Justice (4)
Advanced studies of interrelating component parts of criminal justice system, with particular emphasis on managerial aspects of agencies involved.

506 Seminar: Comparative Criminal Justice Administration (4)
Comparison of criminal justice systems of world, past and present; American systems, national, state, county, and municipal levels; military police systems; organizations, practices, and trends.

538 Seminar: Criminal Justice Problems (4)
Advanced investigation and reports on selected critical problems in criminal justice; emphasis on scientific method and acquaintance with reliable methods of research.

551-553 Advanced Criminalistics I, II, III (4, 4-4)
Methods of scientific analysis, comparison, identification, and individualization of physical evidence and its presentation in court. Lecture 2 hours, laboratory 6 hours.

554 Identification of Modern Drugs (4)
Prerequisite: Instructor consent. Nature, therapeutic action, toxicology, chemical and physical identification of modern drugs; drug nomenclature; scientific, official, and trade names; drug classifications.

555 Questioned Document Analysis (4)
Prerequisite: Instructor consent. Analysis of handwriting, typewriting, inks, paper, forgeries, alterations, erasures; use of photographic, microscopic, infrared, and ultraviolet light equipment; presentation of evidence in court. Lecture and demonstration.

556 Seminar: Special Problems in Criminalistics (4)
Prerequisite: Instructor consent. Inquiry in depth into criminalistics, with emphasis on homicide and major crime, literature of criminalistics field, correlation and synthesis of different methods of approach to criminalistics problems.

557 Legal Medicine in Criminalistics (4)
Prerequisite: Instructor consent. Correlation of findings of autopsy surgeon and criminalist; traumatic injuries, evaluation of wounds, time of death, rigor mortis, post mortem lividity; recognition of poison deaths.

561 Law Enforcement Bibliography and Research (4)
Research methodology in criminal justice field, survey of authorities and their writings, research reports and manuscripts.

582 Criminal Justice Resource Allocation (4)
Analysis of budgeting protocol, models of justice administration delivery systems, and strategies for allocating resources.

595 Directed Field Work (1-4)
Prerequisites: Departmental approval, agency acceptance. Supervised individual field experience in an applied area of criminal justice. May be repeated to maximum of 8 units. Graded CR/NC.

598 Graduate Directed Study (1-5)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics covering the criminal justice system; regular conferences with sponsor. May be repeated to maximum of 9 units; maximum of 12 units in combination of CRIM 499 and 598 may be applied toward degree.

599 Thesis (1-4)
Prerequisites: Consent of an approved thesis committee to act as sponsor, completion of appropriate forms, approval of department. Independent research resulting in a thesis. Must be repeated to maximum of 4 units. Graded CR/NC.

Courses in Traffic and Safety Education (TSE)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser: TSE 475

Graduate Courses

Classified graduate standing is required for admission.

575 Analysis of Accident and Safety Programs (4)
Prerequisite: TSE 475. Safety programs and evaluation strategies; includes analysis of data relevant to traffic, occupational, and public safety programs.

577 Advanced Studies in Traffic and Safety Education (4)
Prerequisites: TSE 474, 475. Analysis of latest developments and trends in safety and traffic education relating to driver education and driver training programs.

578 Legal Aspects of Driver Education and Driver Training (4)
Prerequisites: TSE 474, 475. Critical analysis of driver safety laws relating to teacher; related laws that affect driver education and training programs.
FAMILY STUDIES AND CONSUMER SCIENCES

School of Health and Human Services

DEPARTMENT OFFICE
Fine Arts 238
Phone: (213) 343-4630

Two graduate programs are offered by the Department of Family Studies and Consumer Sciences: the Master of Arts in Home Economics and the Master of Science in Nutritional Science.

Master of Arts Degree in Home Economics

The Master of Arts degree in Home Economics is designed to strengthen professional competence and to prepare students for leadership positions in teaching, community agencies, and consumer-oriented occupations related to housing, interiors, and equipment; management and consumer education; and fashion and textiles. The flexibility of the program enables students to pursue individualized courses of study designed to meet professional needs and goals.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must have an undergraduate major in home economics or equivalent, or a major in a related field and at least 30 quarter units in FSCS courses which may be taken as corequisites, providing prerequisites to individual courses in the program have been met. Applicants must have a minimum 2.75 grade point average in the last 90 quarter units.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses. All programs must be approved by the department graduate studies committee.

Required Courses (7 units):
FSCS 577 Research Concepts in Home Economics (4)
Select, with adviser approval, a 3-unit, 500-level FSCS seminar.

Electives (23 units):
Select FSCS courses, with adviser approval, including at least 7 units in 500-level courses.

Additional Electives (6–15 units):
Select courses in FSCS and related fields, with adviser approval.

Comprehensive Examination or Thesis or Project (0, 6–9 units):
FSCS 596 Comprehensive Examination or Thesis or Project (0)
FSCS 599 Thesis or Project (6–9)

Students should expect to take the comprehensive examination (FSCS 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

Master of Science Degree in Nutritional Science

The Master of Science degree in Nutritional Science is an individualized program designed to develop specialized professional competence in the selected areas of nutrition, food, or dietetics, while also providing breadth in the related areas. The program is designed for persons preparing for positions as public health nutritionists or supervisors in dietetics and food production and service, or doctoral study in nutrition and/or foods.

Graduate students seeking to qualify for the Registered Dietitian examination may complete appropriate course work and clinical experiences concurrently with requirements for the master's degree by also enrolling in the Coordinated Dietetics Program (CDP) clinical courses.

Admission to the Program

In addition to university requirements for admission to graduate study, applicants must possess a baccalaureate from an accredited university. Applicants must have a 2.75 grade point average in the last 90 quarter units. Graduates with a related major may enter the program but must complete 30 quarter units of FSCS courses that are corequisite to the program including FSCS 210 and 317 and related corequisites CHEM 151 and 152. Corequisites must be approved by the department graduate studies committee.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses. The program requires a minimum of 5 courses, excluding those devoted to seminars, directed study, research, or a thesis, from at least 2 of the following 3 areas: nutrition, food, and dietetics.

Required Courses (19 units):
FSCS 519 Seminar: Nutrition, Food, and Dietetics (3)
FSCS 577 Research Concepts in Home Economics (4)
FSCS 597 Graduate Research (4)
Select one from following (4 units):
FSCS 510 Research Methodology in Food (4) or
FSCS 511 Research Methodology in Nutrition (4) or
FSCS 512 Research Methodology in Dietetics (4)
Select one from following (4 units):
FSCS 513 Advanced Problems in Nutrition (4) or
FSCS 514 Advanced Problems in Food (4) or
FSCS 515 Advanced Problems in Dietetics (4)

Electives (11–26 units):
Select FSCS courses with approval of adviser and department graduate studies committee.

Electives in Related Fields (0–9 units):
Select with approval of adviser and department graduate studies committee.

Comprehensive Examination or Thesis or Project (0–6 units):
FSCS 596 Comprehensive Examination (0) or
FSCS 599 Thesis or Project (6)

Students should expect to take the comprehensive examination (FSCS 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.
Courses in Family Studies and Consumer Sciences (FSCS)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser: FSCS 414C, 419ABC, 419S, 479.

Graduate Courses

Classified graduate standing is required for admission.

501 Experimental Fashion Design (3)
Prerequisite: FSCS 401. Theory of fashion design and its application; creative designing through experimentation. Lecture-laboratory 6 hours.

502 Readings in Sociopsychological Aspects of Clothing (4)
Prerequisites: FSCS 302, basic courses in psychology and sociology/anthropology. Clothing as an aspect of human behavior; theories and research in social sciences with clothing as a variable; clothing in relation to individual and social behavior.

509 Seminar: Textiles and Clothing (3)
Prerequisites: FSCS 577, 6-8 units of 400- or 500-level textiles and/or clothing courses. In-depth study of selected topics in textiles and clothing.

510 Research Methodology in Food (4)
Prerequisite: FSCS 410. Research problems in food. Lecture 2 hours, laboratory 6 hours.

511 Research Methodology in Nutrition (4)
Prerequisite: FSCS 417A. Research problems in nutrition. Lecture 2 hours, laboratory 6 hours.

512 Research Methodology in Dietetics (4)
Prerequisite: FSCS 415. Research problems in dietetics. Lecture 2 hours, laboratory 6 hours.

513 Advanced Problems in Nutrition (4)
Prerequisite: FSCS 417ABL. Contemporary problems in nutrition.

514 Advanced Problems in Food (4)
Prerequisite: FSCS 410. Contemporary problems in food.

515 Advanced Problems in Dietetics (4)
Prerequisites: FSCS 410, 415, 417ABL. Contemporary problems in dietetics.

519 Seminar: Nutrition, Food, and Dietetics (3)
Prerequisites: FSCS 577, 8 units of 400- or 500-level courses in nutrition and foods. Selected topics in nutrition, food, and dietetics.

529 Seminar: Child and Family Development (3)
Prerequisite: Upper division child/family course. Child and family development, integrating developmental research and theory.

530 Household Equipment: Performance Testing (4)
Prerequisite: FSCS 430. Performance testing of selected pieces of household equipment; evaluation of materials, construction, and effect on product. Lecture-laboratory 8 hours.

539 Seminar: Child and Family Development (3)
Prerequisite: Upper division child/family course. Child and family development, integrating developmental research and theory.

540 Seminar: Family Economics and Home Management (3)
Prerequisites: FSCS 341, 440. Analysis of research and theoretical frameworks in family economics and home management.

560 Housing and Residential Interiors (4)
Prerequisite: FSCS 460. Current research on home environment, environmental factors, psycho-social, physical, cultural, and aesthetic human environments of significance to designer and planner.

597 Research Concepts in Home Economics (4)
Prerequisite: A course in statistics. Examination of research methodology within a conceptual framework of home economics; utilization of the tools of research; review and critique of research reports; development of a research proposal and a pilot project.

599 Thesis or Project (1-6)
Prerequisite: FSCS 577, seminar in thesis/project research area, 3 units of 597, advancement to candidacy, minimum 3.5 GPA, instructor consent to act as sponsor, department approval of topic before registration. Independent research resulting in thesis or project; oral thesis defense required. May be repeated to maximum of 9 units; combined 595, 597, 598, and 599 units may not exceed 15. Graded CR/NC.
HEALTH SCIENCE

School of Health and Human Services

DEPARTMENT OFFICE
Engineering and Technology A505
Phone: (213) 343-4740

The Master of Arts degree in Health Science provides advanced preparation in health sciences and safety fields including school, community, and allied health programs. It qualifies graduates for advanced leadership positions and provides the health science foundation for community college teaching positions.

Master of Arts Degree in Health Science

Admission to the Program

Prerequisites (9 units):
- HS 350 Health Maintenance Problems (3)
- HS 360 Selecting Health and Medical Services and Products (3)
- HS 463 National and International Health Problems (3)

Applicants must have a baccalaureate from an accredited institution with sufficient courses in health science and the basic sciences to provide a foundation for advanced work. In addition, applicants must have a 2.75 grade point average in the last 90 quarter units or have demonstrated ability to earn a B (3.0) grade point average at the postbaccalaureate level.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses.

Required Courses (14 units):
- HS 530 Research Design in Health Science (4)
- HS 560 Administration of Health Science Education (3)
- HS 580 Seminar: Health Science Research (4)
- HS 591 Advances in Health Science Education (3)

Electives (select 16–30 HS units with adviser approval)

Electives in related fields (select 0–14 units with adviser approval)

Comprehensive Examination or Thesis or Project (0, 6 units):
- HS 596 Comprehensive Examination (0)
- HS 598 Graduate Directed Study (1–4) or
- HS 599 Thesis or Project (6)

Students should expect to take the comprehensive examination (HS 596) the quarter they complete all coursework on their program and must comply with school and departmental requirements.

Courses in Health Science (HS)

Graduate Courses

Classified graduate standing is required for admission.

530 Research Design in Health Science (4)
Prerequisite: A four-unit, upper division statistics course. Examination of research methodology within a conceptual framework of health science; utilization of the tools of research.

540 Analysis of Health Care Delivery Systems (4)
National and international health care delivery systems, their historical development, objectives, designs, systems components; personnel, facilities, financing, and utilization problems; future patterns in health care delivery systems. Field visits may be required.

550 Health and Safety Risk Management (4)
Component analysis of health facility and industrial risk management programs; evaluation and implementation techniques with review strategies. Data and functions for programs as integral part of quality assurance system.

560 Administration of Health and Safety Education (3)
Organization, content, and evaluation of health and safety education programs; administration and supervision in official and non-official agencies.

570 Health Appraisal and Guidance (4)
Developing skills in recognizing health problems; choosing appropriate procedures for screening programs; implementation of appraisal findings through appropriate health guidance techniques.

580 Seminar: Health Science Research (4)
Prerequisite: HS 591. Analysis of and research in health science.

591 Advances in Health Education (3)
Prerequisite: HS 530. Analysis of selected contemporary problems in health sciences.

595 Field Study in Health Science (1–6)
Prerequisites: Departmental approval, agency acceptance. Supervised individual field experience in an applied area of health or safety. May be repeated to maximum of 8 units. Graded CR/NC.

597 Graduate Research (1–6)
Prerequisites: Instructor consent to act as sponsor, departmental approval of project prior to registration. Independent research under guidance of the faculty. May be repeated to maximum of 6 units. Graded CR/NC.

598 Graduate Directed Study (1–4)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated to maximum of 6 units. Graded CR/NC.

599 Thesis or Project (1–6)
Prerequisites: Instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis or project. Must be repeated to maximum of 6 units. Graded CR/NC.
The Master of Science degree in Nursing provides advanced study in the following four areas:

- Nursing Administration
- Nursing Education
- Home Health Care Administration
- Clinical Nurse Specialization (Adult, Parent-Child, Psychiatric-Mental Health)

Advanced clinical study also is provided in adult nursing, family nursing, or home health care nursing. Field study assignments are directed toward meeting individual goals of students relative to their clinical specialization and functional interest.

Students seeking the credential to teach nursing in community colleges should consult the Coordinator of Community College Education in the School of Education and an adviser in the Department of Nursing.

The Master of Science degree in Nursing is accredited by the National League for Nursing.

Master of Science Degree

Admission to the Program

- Applicants must fulfill the following prerequisites and criteria:
- Equivalent of requirements for Bachelor of Science degree in Nursing from an NLN-accredited program in effect at the time of admission as a graduate;
- Minimum B (3.0) grade point average in upper division nursing courses or permission of the departmental graduate studies committee;
- 2.75 grade point average in the last 90 quarter units attempted;
- Minimum of 4 quarter units in an upper division statistics course, which may be taken concurrently with NURS 490 or electives;
- NURS 390 or equivalent (prerequisite to NURS 490);
- Malpractice insurance for professional nursing practice.

Admission to Accelerated Master’s Program

I. Admission Requirements for RNs with a Non-Nursing Baccalaureate

- A baccalaureate from an accredited institution with a major other than nursing
- An A.A. or A.S. degree in Nursing from an accredited college or an NLN-accredited diploma program;
- Completion of current B.S. degree in Nursing course prerequisites;
- Eligibility for university admission in conditionally classified graduate standing;
- A minimum 2.75 grade point average in the last 90 quarter units attempted; and
- Current licensure to practice nursing in California and malpractice insurance.

To continue in the accelerated program, students must:
- complete one year of clinical employment as an RN before they may enroll in NURS 345; and
- Maintain a minimum B (3.0) grade point average in required upper division nursing courses to qualify for classified graduate standing.

Baccalaureate Course Requirements

(a bachelor's degree is conferred in this accelerated master's degree program only to students who fulfill current general education requirements)

Required in Related Fields (53 units)

ANTH 444 Medical Anthropology (4)
Biol 200AB Human Anatomy and Physiology I, II (5, 5)
CHEM 151, 152 Fundamentals of Chemistry I, II (5, 5)
ENGL 190 Freshman Composition: Explanation (4)
*FSCS 317 Fundamentals of Human Nutrition (3)
**MICR 201 Microbiology for Health Related Sciences (4)
**MICR 202 Microbiology Laboratory for Health Related Sciences (2)
PSY 150 Introduction to Psychology (4)
SOC 201 Principles of Sociology (4)
SPCH 150 Oral Communication (4)
Any upper division statistics course of 4 units or more

* Students entering with 3 or more semester units (4 1/2 quarter units) of credit for a course in general nutrition from an accredited college or diploma program satisfy this requirement by transfer credit.

** Students entering with 4 or more semester units (6 or more quarter units) of credit from an accredited college for a course including laboratory satisfy this requirement by transfer credit.

Required in Nursing (80 units)

Lower Division Required Courses (44 units):

Lower division required courses are met by 44 quarter units of transfer credit granted by the Department of Nursing.

R.N. students may enroll in NURS 342-343 and/or the last natural science course concurrent with the first quarter of 300-level nursing courses.

Upper Division Required Courses (30 units):

NURS 302 Coping with Chronic Illness and Aging (3)
NURS 304 Coping with Selected Problems of Illness and Disability (3)
NURS 342 Nursing Process: Self-Care (2)
NURS 343 Nursing Process: Self-Care Laboratory (1)
NURS 344 Coping with Loss (3)
NURS 345 Nursing Process Laboratory: Home Health Care (3)
NURS 372 Physical Assessment (3)
NURS 373 Physical Assessment Laboratory (1)
NURS 390 Introduction to Nursing Research (4)
NURS 470 Family and Community Health Assessment (4)
NURS 471 Family and Community Health Assessment Laboratory (3)

Clinical electives (6 units):

Select two courses, a lecture with a respective concurrent laboratory, from the list of clinical electives below. Completion of
specified 300-level courses is prerequisite to enrollment in clinical electives.

NURS 400+401  NURS 442+443
NURS 403+404  NURS 456+457
NURS 430+431  NURS 474+475A or 475B

II. Admission Requirements for RNs without a Baccalaureate

- An A.A. or A.S. degree in Nursing from an accredited college or an NLN-accredited diploma program with a minimum 2.75 grade point average.
- Completion of current B.S. degree in Nursing course prerequisites.
- Current license to practice nursing in California, and malpractice insurance for professional nursing practice.

To qualify for classified graduate standing, students pursuing this accelerated program must:

- Complete one year of clinical employment as an RN.
- Complete all required baccalaureate nursing courses.
- Maintain a minimum B (3.0) grade point average in required upper division nursing courses.

Requirements for the Bachelor’s Degree Major

A total of 186 units is required for the Bachelor of Science degree in Nursing, which is conferred concurrently with the Master of Science degree in Nursing.

Required in Related Fields (53 units)

ANTH 444 Medical Anthropology (4)
BIOL 200AB Human Anatomy and Physiology I, II (5, 5)
CHEM 151, 152 Fundamentals of Chemistry I, II (5, 5)
ENGL 190 Freshman Composition: Explanation (4)
**FSCS 317 Fundamentals of Human Nutrition (3)
**MICA 201 Microbiology for Health Related Sciences (4)
**MICA 202 Microbiology Laboratory for Health Related Sciences (2)

Any upper division statistics course of 4 units or more

* Students entering with 3 or more semester units (4 1/2 quarter units) of credit for a course in general nutrition from an accredited college or diploma program satisfy this requirement by transfer credit.

** Students entering with 4 or more semester units (6 or more quarter units) of credit from an accredited college for a course including laboratory satisfy this requirement by transfer credit.

Required in Nursing (83 units)

Lower Division Required Courses (44 units):

Lower division required courses are met by 44 units of transfer credit granted by the Department of Nursing.

R.N. students may enroll in NURS 342-343 and/or the last natural science course concurrent with the first quarter of 300-level nursing courses.

Upper Division Required Courses (33 units):

NURS 302 Coping with Chronic Illness and Aging (3)
NURS 303 Nursing Process Laboratory: Chronicity and Aging (3)
NURS 304 Coping with Selected Problems of Illness and Disability (3)
NURS 342 Nursing Process: Self-Care (2)
NURS 343 Nursing Process: Self-Care Laboratory (1)

NURS 442+443 NURS 474+475A
NURS 456+457 NURS 470 Family and Community Health Assessment (4)
NURS 471 Family and Community Health Assessment Laboratory (3)

Clinical electives (6 units):

Select two courses, a lecture with a respective concurrent laboratory, from the list of clinical electives below. Completion of all required 300-level courses is prerequisite to clinical electives.

NURS 400+401 NURS 442+443
NURS 403+404 NURS 456+457
NURS 430+431 NURS 474+475A or 475B

Requirements for the Master’s Degree (45-54 units)

A total of 45-54 units is required, with at least 23-27 in 500-level courses.

Required Core (16 units)

NURS 490 Proseminar: Nursing Research (4)
NURS 590 Seminar: Methodology of Nursing Research (4)
NURS 592 Seminar: Nursing Theories (4)
NURS 594 Advanced Study of Issues and Trends in Nursing (4)

**NURS 595 Advanced Field Study (3)

Must be taken with each seminar

Functional Area (7-20 units)

Select one of the following areas:

NURSING ADMINISTRATION (7 units)

NURS 562 Human Resource Utilization in Health Care Organizations (2)
NURS 564 Seminar: Health Care Administration (2)
**NURS 595 Advanced Field Study (3)

** Must be taken with NURS 564

NURSING EDUCATION (7 units)

NURS 560 Development of Educational Programs in Nursing (4)
**NURS 595 Advanced Field Study (3)

** Must be taken with NURS 560

CLINICAL SPECIALTY (20 units)

Required Course (2 units)

NURS 568 Clinical Nurse Specialty: Role Development (2)

Select one sequence from the following (18 units):

NURS 506A Seminar: Advanced Theoretical Foundations of Adult Care (2) plus
NURS 506B Seminar: Advanced Clinical Assessment of the Adult (2) plus
NURS 506C Seminar: Advanced Adult Patient Management (2) or
NURS 520ABC Seminar: Parent-Child Nursing (2.2.2) or
**NURS 542ABC** Seminar: Psychiatric/Mental Health Nursing (2, 2, 2) plus
**NURS 595** Advanced Field Study (4, 4, 4)

**Must be taken with NURS 506ABC, 520ABC, and 542ABC and in quarter(s) following for a total of 12 units.

**HOME HEALTH CARE ADMINISTRATION** (14 units)
NURS 582 Seminar: Home Health System Management (4)
NURS 583 Seminar: Home Health Care Administration (4)
**NURS 595** Advanced Field Study (3, 3)

**Must be taken with NURS 582 and 583.

**Electives** (select 5–15 units with adviser approval)
Comprehensive Examination or Thesis or Project (0, 5 units):
NURS 596 Comprehensive Examination (0) or
NURS 597 Graduate Research (2) plus
NURS 599 Thesis or Project (3)

Students who select the comprehensive examination (NURS 596) should take the four subexaminations one to two quarters after they complete all required nursing courses and must comply with school and departmental requirements.

Students who select the thesis or project option (NURS 599) must complete 2 units of NURS 597 prior to the required 3 units of NURS 599.

**Health Services Credential: School Nurse Services**

State of California credential requirements for a clear Health Services credential include a fifth year of study, completed after the baccalaureate, consisting of a minimum of 45 quarter units. The program leads to certification as a school nurse for professional employment in California public schools.

Students may fulfill the requirement of 180 clock hours of school nurse field experience by full-time employment as a school nurse in a California public school for at least two years. Candidates must request letters of recommendation from their immediate supervisor(s) confirming employment and satisfactory performance.

**Requirements for the Credential (45 units)**

**Required Courses** (36 units):
NURS 372 Physical Assessment (3)
NURS 373 Physical Assessment Clinical Laboratory (1)
NURS 423 Nursing in School Health Programs Clinical Laboratory (6)
NURS 426 Nursing Management in Public Schools (4)
NURS 428 Nursing Assessment in Public Schools (4)
COMD 402 Pure-tone Audiometry (3)
COUN 480 Fundamentals of Counseling (4)
EDSP 400 Education and Psychology of Exceptional Individuals (4)
HS 456 Health Studies on Alcohol, Narcotics, Nutrition, and Tobacco (4)
HS 490 Administration of School Health Programs (3)

**Selected Electives**
NURS 430, 442, 456, 460, 462, 464, 468, 474, 490, 590
ART 410
CRIM 438
COUN 405AB, 406, 460
EDSP 440, 460, 462, 465, 518
EDSP 490, 444, 445, 460
PSY 412AB
SOC 460

**Courses in Nursing (NURS)**

**400-level Courses**

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

**Graduate Courses**

Classified graduate standing is required for admission.

**502 Seminar: Self-Care Concepts for Advanced Nursing Practice (2)**
Prerequisite: NURS 490; corequisite: NURS 592. Evaluation of theories and research associated with selected self-care requisites common to clients with a variety of major health deviations. Application of theory/research in development of assessment criteria.

**504 Seminar: Adult Nursing (4)**
Prerequisite: NURS 582; corequisite: NURS 595. Investigation of approaches to theory/research utilization in construction and evaluation of educative-supportive systems of nursing assistance for selected self-care deficits common to adults with major health deviations.

**506A Seminar: Advanced Theoretical Foundations of Adult Care (2)**
Prerequisites: NURS 372, 373, 400, 404, 504, 508, appropriate clinical experience; corequisite: NURS 595. Theories and research related to pathophysiological dysfunction and human responses to illness using hospitalized adult patients with acute, potentially progressive, or complicated chronic health-related difficulties.

**506B Seminar: Advanced Clinical Assessment of the Adult (2)**
Prerequisites/corequisite: NURS 506A; corequisite: NURS 595. Advanced comprehensive assessment of acutely or chronically ill hospitalized adult patients.

**506C Seminar: Advanced Adult Patient Management (2)**
Prerequisite or corequisite: NURS 506B; corequisite: NURS 595. Advanced adult patient management and other collaborative strategies used by clinical nurse specialists in acute health care setting.

**520ABC Seminar: Parent-Child Nursing (2, 2-2)**
Prerequisites: NURS 574, instructor consent; corequisite: NURS 595. Theoretical approach to health care of families with healthy infants, children, and adolescents and those experiencing developmental problems, illness, child abuse and neglect, and death.

**542ABC Seminar: Psychiatric Mental Health Nursing (2, 2, 2)**
Prerequisites: NURS 574; corequisite: NURS 595. Study and analysis of theories of psychotherapy, family therapy and group therapy; development of eclectic models; application of appropriate models to development of psychiatric/mental health nursing interventions.

**546 Mental Health Consultation in Nursing (4)**
Prerequisites: Courses from undergraduate program or appropriate experience, NURS 574, SOC 472; corequisite: NURS 595. Theory basic to process of mental health consultation as it applies to ad hoc crises and case consultation.

**560 Development of Educational Programs in Nursing (4)**
Prerequisites: NURS 592, EDPS 510. Growth and development of educational programs in nursing; conceptual models for organization of professional and technical curricula; models for career mobility; and criteria for accreditation.
562  Human Resource Utilization in Health Care Organizations (2)
Analysis of procedures in health care personnel practices: licensure, recruitment, hiring, staffing, continuing education, performance evaluation, incentive plans; changing roles among health care personnel.

564  Seminar: Health Care Administration (2)
Corequisite: NURS 595. Administrative issues in health care settings: goal complexity, power distribution, administrative-professional conflict, decision making process, introduction of change; systems concept as assessment tool; interdependence of management team members in a health agency.

568  Clinical Nurse Specialty: Role Development (2)
Prerequisite: NURS 504 or 574. Clinical, educational, consultative, and research role components of clinical nurse specialist examined within various clinical settings.

574  Seminar: Family Nursing (4)
Prerequisite: NURS 592; corequisite: NURS 595. Evaluation of theoretical perspectives and models appropriate for working with families, including utilization of family research in clinical assessment generation of intervention strategies within health care setting.

581  Seminar: Home Health and Community Systems (4)
Prerequisite: NURS 592; corequisite: NURS 595. Advanced concepts in home health and community systems within which patient/family systems operate and interact; analysis of systems, their functions, and regulatory constraints.

582  Seminar: Home Health System Management (4)
Prerequisite: NURS 581; corequisite: NURS 595. Management and leadership theories and application in home health care organization including decision-making, contingency model, leadership, effective human resource management, and productivity.

583  Seminar: Home Health Care Administration (4)
Prerequisite: NURS 582; corequisite: NURS 595. Administrative role for reducing environmental uncertainties for home health care organization: emphasis on providing appropriate structure, financial planning, budgetary concerns, human resource issues, and organizational effectiveness.

590  Seminar: Methodology of Nursing Research (4)
Prerequisites: NURS 504 or 574. Concepts and issues related to research design and measurement; development of hypothetical nursing research projects.

592  Seminar: Nursing Theories (4)
Prerequisites: NURS 490, instructor consent. Major theories underlying nursing practice/research, curriculum development.

594  Advanced Study of Issues and Trends in Nursing (4)
Advanced study of the nursing profession's progress within a context of social criticism and change; designed to advance graduate student knowledge and conceptualization of nursing leadership and practice.

595  Advanced Field Study (2–6)
Corequisites: NURS 581-583; one NURS seminar selected from 504, 506ABC, 520ABC, 542ABC, 546, 560, 564, and 574 or enrollment in MS–Health Care Management program. Experience in specialized clinical and functional areas assigned on an individual basis. Weekly tutorial sessions required for student-teacher synthesis of data from concurrent seminar and field experience. Graded CR/NC.

597  Graduate Research (1–4)
Prerequisites: NURS 590, instructor consent to act as sponsor. Independent research under guidance of faculty sponsor. May be repeated for credit. Graded CR/NR only.

598  Graduate Directed Study (1–4)
Prerequisite: Instructor consent to act as sponsor. Directed study of advanced topics in field; regularly scheduled conferences with sponsor. May be repeated to maximum of 8 units.

599  Thesis or Project (1–3)
Prerequisites: Advancement to candidacy, two units of NURS 597, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis or project. Must be repeated to maximum of 3 units. Graded CR/NC.
School of Health and Human Services

DEPARTMENT OFFICE
Physical Education 206
Phone: (213) 343-4650

The Master of Arts degree in Physical Education is designed to provide teachers and administrators with experience in analyzing critically the problems in teaching, programming, administering, and teaching physical education programs in secondary schools. It adds depth to the professional preparation of leaders in the field and serves as a basis for further study. Students select one of three areas of specialization: Administration and Instruction, Exercise Science, or General Physical Education. The specific courses included in the master's degree program to develop the area of emphasis must be selected with the approval of the principal graduate adviser.

Master of Arts Degree in Physical Education

Admission to the Program
Applicants must have adequate undergraduate preparation in physical education and a minimum 2.75 grade point average in the last 90 quarter units.

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 23 in 500-level courses. PE 401 (4 units) is required of all students for advancement to candidacy. Students in the Exercise Science area of specialization must also take PE 470. PE 502 is prerequisite or corequisite to all other 500-level courses in physical education and must be taken in the first quarter of enrollment in 500-level courses.

Required Courses (9 units):
- PE 502 Seminar: Research in Current Literature (3)
- PE 504 Seminar: Historical and Philosophical Bases of Physical Education (3)
- PE 506 Seminar: Current Issues in Physical Education and Sport (3)

Area of Specialization
Select one of the following areas of specialization (12-13 units).

- Administration and Instruction (12 units)

  Select 12 units from following:
  - PE 511 Seminar: Administration of Physical Education (3)
  - PE 512 Seminar: Concepts of Lifetime Sports Programs (3)
  - PE 515 Seminar: Program Planning in Physical Education (3)
  - PE 516 Seminar: Administration of Intramural Programs (3)
  - PE 517 Seminar: Administration of Athletic Programs (3)
- Exercise Science (12-13 units)
  Required Course (3 units):
  - PE 520 Experimental Design in Physical Education (3)

  Select 3 courses from following (9-10 units):
  - PE 521, 522, 524, 528, 529, 532, 535, 538.

- General Physical Education (12-13 units)

  With adviser approval, select PE courses from the above two areas of specialization.

Electives (select 18-24 units with adviser approval)
Comprehensive Examination or Thesis or Project (0, 5 units):
PE 596 Comprehensive Examination (0) or PE 599 Thesis or Project (5)

Students who select the comprehensive examination (PE 596) may take it in their last quarter of course work, if offered, or in any subsequent quarter it is offered, and must comply with school and departmental requirements. The comprehensive examination consists of two parts, one covering the required area and the other covering the student's area of specialization. Students are responsible for the material covered in all courses in the area of specialization except special topics courses.

Courses in Physical Education (PE)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by department and approval of graduate adviser: PE 498, 499.

Graduate Courses

Classified graduate standing is required for admission.

502 Seminar: Research In Current Literature (3)
Prerequisite: Undergraduate major or minor in physical education. Analysis, evaluation, and interpretation of research studies and investigation in physical education.

504 Seminar: Historical and Philosophical Bases of Physical Education (3)
Prerequisite or corequisite: PE 502. Critical analysis of student's philosophy of physical education through study of history, purposes, values, basic beliefs, and programs of physical education.

506 Seminar: Current Issues in Physical Education and Sport (3)
Prerequisite or corequisite: PE 502. Advanced study of selected contemporary issues in physical education and sport; professional implications.

511 Seminar: Administration of Physical Education (3)
Prerequisite or corequisite: PE 502. Theory and practice of administration of physical education departments at elementary, secondary, and college levels.

512 Seminar: Concepts of Lifetime Sports Programs (3)
Prerequisite or corequisite: PE 502. Concepts of establishing and maintaining programs of lifetime sports in educational settings.

515 Seminar: Program Planning in Physical Education (3)
Prerequisite or corequisite: PE 502. History, background, philosophy, and current types of instructional programs in physical education at elementary and secondary school levels; methods of planning functional physical education curricula.

516 Seminar: Administration of Intramural Programs (3)
Prerequisite or corequisite: PE 502. Organization and administration of intramural programs at elementary, secondary, and higher education levels.
Courses in Recreation (RECR)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by department and approval of graduate adviser: RECR 480, 495

Graduate Courses

Classified graduate standing is required for admission.
Departments and Programs within the School

Department of Anthropology
Department of Biology
Department of Chemistry and Biochemistry
Department of Chicano Studies
Department of Geography and Urban Analysis
Department of Geological Sciences
Department of History
Latin American Studies Program
Department of Mathematics and Computer Science
Department of Microbiology
Department of Physics and Astronomy
Department of Political Science
Department of Psychology
Department of Sociology
Graduate Writing Skills Requirement

The policy governing the Graduate Writing Skills Requirement for the School of Natural and Social Sciences differs somewhat from the overall university policy. The school policy is as follows:

All students admitted to a graduate program in the School of Natural and Social Sciences who have not passed UNIV 400, the Writing Proficiency Examination (WPE), before beginning their graduate studies are encouraged to take the examination in their first quarter in residence as postbaccalaureate students. Students must pass the WPE before the end of their second quarter in residence as postbaccalaureate students. Those who do not pass the WPE before the end of their second quarter in residence will be suspended from further work on their programs until they have passed the examination.

Students who are applying for admission by special action to a graduate program in the School of Natural and Social Sciences must pass the WPE before submitting their application for admission by special action.

Graduate students who are readmitted to a graduate program within the School of Natural and Social Sciences at Cal State L.A. after a break in residence and who have not passed the WPE must pass the exam in their first quarter in residence after readmission to the program or they will be suspended from further work on their program until they have passed the exam.

The Cal State L.A. Writing Proficiency Examination may not be waived for graduate students admitted to programs in the School of Natural and Social Sciences even if they have satisfied a writing proficiency requirement at another institution.
### Graduate Courses

- **501 Seminar: Ethnography (4)**
  - Prerequisites: Graduate standing in a social science major, instructor consent. Selected topics in major world areas, as announced in Schedule of Classes. May be repeated for credit to maximum of 8 units for different areas.

- **510AB Seminar: Anthropological Theory and Analysis (4, 4)**
  - Advanced consideration of problems involved in application of anthropological theory to cultural data; limitations of contemporary analytical methods.

- **520 Seminar: Archeology (4)**
  - Prerequisite: ANTH 421, 424, or 425. Archaeological theory, method, and relationship of archaeological materials to central problems of anthropology. May be repeated once for credit.

- **530 Seminar: Social Organization (4)**
  - Prerequisite: Classified graduate standing in Anthropology. Problems and theories of contemporary social anthropology. May be repeated once for credit.

- **560 Seminar: Physical Anthropology (4)**
  - Prerequisite: ANTH 461 or 462. Problems and theories of contemporary physical anthropology. May be repeated once for credit.

- **570 Seminar: Language and Culture (4)**
  - Prerequisites: Sixteen units of ANTH courses, including 470 or 471. Advanced study of concepts of language and culture; use of linguistic data and methods in anthropology; relationships between linguistic and nonlinguistic behavior; linguistic models. May be repeated for credit.

- **580 Methods in Ethnography (5)**
  - Prerequisite: Classified graduate standing in Anthropology. Advanced principles and methods concerned with ethnographic field work; techniques of gathering, reporting, and interpreting field data relating to research problems and design. May be repeated once for credit. Lecture 3 hours, laboratory and field work 6 hours.

- **594 Seminar: Problems in Cultural Anthropology (4)**
  - Prerequisite: Classified graduate standing in Anthropology. Problems and theories of contemporary cultural anthropology. May be repeated once for credit.

- **598 Graduate Directed Study (1-3)**
  - Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated to maximum of 6 units.

- **599 Thesis (1-3)**
  - Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis. Must be repeated to total of 6 units. Graded CR/NC.
The Master of Science degree in Biology is designed to prepare students for biological research, doctoral study, technical positions in industry and government agencies, and community college teaching. Graduate students may pursue the degree in any of the following areas of specialization: animal behavior, animal physiology, aquatic biology, cell biology, developmental biology, ecology, electron microscopy, entomology, environmental biology, evolution, genetic engineering, genetics, histology and anatomy, invertebrate zoology, molecular biology, mycology, parasitology, physiological ecology, plant anatomy, plant physiology, plant taxonomy, tissue culture, vertebrate paleontology, or vertebrate zoology.

Master of Science Degree
Admission to the Program
Application to both the Department of Biology and the university is required. The completed departmental application, together with transcripts of all previous college work and three letters of recommendation, must be received by the department prior to the following deadlines:
- August 1 for admission to fall quarter
- November 1 for admission to winter quarter
- February 1 for admission to spring quarter
- April 1 for summer quarter.

Applicants who desire a teaching assistantship must also submit three letters of recommendation by the same deadline.

Applicants are expected to possess a baccalaureate in a biological science equivalent to the Bachelor of Science degree major offered at Cal State L.A. All entering graduate students must submit GRE scores, including the Advanced Biology Exam, prior to admission to classified standing. The scores will be used for advisement and guidance in course selection. Applicants may be admitted to the degree program in classified or conditionally classified standing. Classified standing is granted to those who have a minimum 2.75 grade point average in their last 90 quarter units attempted. Conditionally classified standing is granted to those whose grade point average in their last 90 quarter units attempted is between 2.5 and 2.74. Conditionally classified students must achieve a B (3.0) grade point average in four qualifying courses (to be approved in advance by the graduate adviser) that should be completed by the end of the second quarter of graduate study and must be among the first six courses completed.

Applicants who wish to enter the program from outside the biological science area must complete the following courses (or equivalents) to be eligible for graduate status in the Biology Department:

- BIOL 101-103 Principles of Biology (5, 5, 3)
- BIOL 302 Biometrics (4)
- BIOL 315 General Genetics (4)
- BIOL 330 Cell Biology (4)
- BIOL 360 General Ecology (4)
- CHEM 101-103 General Chemistry I, II, III (5, 5, 5)

- BIOL 301 ABC Organic Chemistry (3, 3, 3)
- BIOL 302 ABC Organic Chemistry Laboratory (2, 2, 2)
- PHYS 101-103 Physics (4, 4, 4)

Requirements for the Degree (45 units)
A minimum of 45 units is required, with at least 23 in 500-level courses. A comprehensive examination or a thesis is required. All students must take BIOL 510 (Seminar: Biology) twice during their first year in classified graduate standing. Students also must fulfill all university requirements including the Writing Proficiency Examination (WPE). All students must present a final graduate seminar.

Comprehensive Examination or Thesis (0, 1-9 units)
Students may elect either the comprehensive examination option or the thesis option.

- BIOL 596 Comprehensive Examination (0) or
- BIOL 599 Thesis (1-9 units)

Comprehensive Examination Option
This option is available for students who are planning to teach high school. This option requires completion of a minimum of 22 units of 400- or 500-level courses in biology or related fields. These courses are selected in consultation with an adviser and should provide the students with the background needed to take an examination covering all major areas of biology.

This option also requires completion of 23 units of 500-level courses which may include up to 4 units of BIOL 598 (Graduate Directed Study). Students who select the comprehensive examination option should expect to enroll in BIOL 596 (Comprehensive Examination) the quarter they complete course work. The departmental graduate adviser, who coordinates and administers the comprehensive examination, gives consent to enroll in BIOL 596. For their final departmental seminar, students select a topic from the literature and present it to the department.

Thesis Option
This option is recommended for students planning to pursue an advanced degree (Ph.D., M.D., D.D.S., etc.) as well as those planning careers in biology at the master's degree level. The option requires a minimum of 22 units of 400- or 500-level courses in biology or related fields. These courses are selected in consultation with an adviser and should provide the student with the necessary background for thesis research.

The option requires a minimum of two graduate seminar courses in addition to BIOL 510 and 15 units selected from the following courses:

- BIOL 595 Individual Research in Gene Manipulation (4)
- BIOL 597 Graduate Research (1-6)
- BIOL 598 Graduate Directed Study (1-6)
- BIOL 599 Thesis (1-9)

Before enrolling in BIOL 597 and 599, students prepare a research prospectus and have it approved by their examining committee and the departmental graduate studies committee. This prospectus must be approved within three quarters of the date they receive classified graduate standing in order for them to remain eligible for assistantships.
Before being awarded the M.S. degree, students must pass a final oral examination administered by the thesis committee and the Department of Biology and must present their thesis research at a department seminar.

Certificate Program in Biotechnology

This postbaccalaureate credit certificate program provides intensive theoretical and laboratory training in the techniques and application of genetic engineering and related technologies. The program is designed to prepare students for employment in industrial or academic research positions or for advanced study in molecular biology. Courses taken to fulfill certificate requirements may also be applied toward the master's degree in Biology.

The certificate program requires completion of a minimum of 26 units, taken in postbaccalaureate or graduate standing, of which 19 are in required courses and seven or more are in electives. Refer to the Graduate Study chapter of this catalog for general information governing all certificate programs.

Prerequisites for admission to the program:

- Admission, in classified graduate standing, to the Department of Biology, the Department of Chemistry and Biochemistry, or the Department of Microbiology;
- Completion with a B (3.0) grade point average or higher, of the following courses or equivalents:
  - BIOL 330  Cell Biology (lecture and laboratory) or MICR 340  Microbial Genetics
  - CHEM 431ABC  Biochemistry (lecture)
  - CHEM 432AB  Biochemistry (laboratory) (recommended)

As space is available, students who have not completed these prerequisites may be admitted to a core course (see below) with the consent of the instructor, but award of the certificate is contingent upon completion of all prerequisites for the program. Students who have had neither a laboratory course in nor employment experience with sterile microbiological techniques must complete MICR 202 (Microbiology Laboratory for Health-Related Sciences—2 units) during their first quarter in the certificate program.

Requirements for the Certificate  (minimum 26 units):

Required Core  (19 units):

- BIOL 417  Principles of Gene Manipulation (4)
- BIOL 517  Seminar: Gene Manipulation (3)
- BIOL 519  Laboratory Experiments in Gene Manipulation (8)
- BIOL 595  Individual Research in Gene Manipulation (4)

Electives  (minimum 7 units):

Select from following: include no more than 6 units in seminars.

- BIOL 416  Molecular Genetics (4)
- BIOL 437  Advanced Cell Physiology (4)
- BIOL 515  Seminar: Genetics (3)
- BIOL 525  Seminar: Developmental Biology (3)
- BIOL 539  Seminar: Cell Biology (3)
- CHEM 432AB  Biochemistry Laboratory (2,2)
- CHEM 503  Advanced Biochemistry (3)
- MICR 401  General Virology (3)
- MICR 402  Virology Laboratory (2)
- MICR 430  Bacterial Physiology (3)
- MICR 433  Bacterial Physiology Laboratory (2)
- MICR 510  Microbial Genetics (3)

Graduate Courses

Classified graduate standing is required for admission.

501 Seminar: Development of Biological Concepts (3)
Impact of great concepts in biological science on human thought and activities and on present day understanding. May be repeated once for credit as subject matter changes.

510 Seminar: Biology (1)
Attendance at regular departmental seminar program: participation in seminar training program with course instructor; presentation of a departmental seminar. Graded CR/NC.

515 Seminar: Genetics (3)
Prerequisite: BIOL 315. Recent developments in various fields of genetics. May be repeated once for credit as subject matter changes.

517 Seminar: Gene Manipulation (3)
Prerequisites: BIOL 417; instructor consent. Critical evaluation and communication of recent literature in molecular biology. May be repeated to maximum of 6 units.

519 Genetic Engineering Laboratory (8)
Prerequisites: BIOL 417; BIOL 330 or MICR 200AB; CHEM 431ABC; instructor consent. Introduction to basic techniques. Lecture 2 hours, laboratory 16 hours.

522 Seminar: Morphology (3)
Advanced studies in animal or plant morphology, with emphasis on evolutionary and environmental adaptations. May be repeated to maximum of 6 units as topic changes.

525 Seminar: Developmental Biology (3)
Prerequisites: BIOL 330, instructor consent. Discussion of recent advances in the field of plant and/or animal embryonic and postembryonic development. May be repeated to maximum of 6 units as topic changes.

534 Seminar: Systems Physiology (3)
Prerequisite: BIOL 330. Advanced study in various areas of systems physiology. May be repeated to maximum of 6 units as subject matter changes.

537 Seminar: Endocrinology (3)
Prerequisite: BIOL 437. Discussion of current topics and trends in endocrine physiology. May be repeated to maximum of 6 units as subject matter changes.

538 Seminar: Environmental Physiology (3)
Prerequisite: A course in animal systems physiology; BIOL 438 recommended. Mechanisms and specializations of animals as related to their environment. May be repeated once for credit as subject matter changes.

539 Seminar: Cell Biology (3)
Prerequisites: BIOL 330, CHEM 431C. Major cell functions considered primarily from standpoint of causative and control mechanisms. May be repeated once for credit as subject matter changes.
540 Seminar: Biological Systematics (3)
Prerequisites: A course in genetics, statistics, and either a botany or zoology systems course. Fundamental concepts and problems in definition and recognition of species and higher taxa, and the special experimental or biometric techniques used. May be repeated to maximum of 6 units as subject matter changes.

560 Topics in Animal Ecology (4)
Prerequisite: BIOL 360. Advanced studies in ecological relationships of animals; class, field and/or laboratory research projects involving data gathering, analysis and synthesis. May be repeated once for credit. Lecture 2 hours, laboratory/field work 6 hours.

562 Advanced Topics in Plant Ecology (3)
Prerequisite: BIOL 462. Analysis of selected plant communities to determine structure, pattern, and interrelationships; discussion of current theories, problems, and methods of vegetational sampling, analysis, and synthesis. Lecture 2 hours, laboratory and/or field work 3 hours.

563 Seminar: Ecology (3)
Prerequisite: BIOL 360. Recent advances and current research in ecology. May be repeated once for credit.

575 Seminar: Animal Behavior (3)
Prerequisite: BIOL 475 or PSY 408. Current topics in animal behavior, with emphasis on origin and ecological significance of behavioral patterns. May be repeated for credit to maximum of 6 units as subject matter changes.

595 Individual Research in Gene Manipulation (4)
Prerequisites: BIOL 517, 519. Laboratory research project conducted in approved on- or off-campus laboratory. Graded CR/NC.

597 Graduate Research (1-6)
Prerequisite: Approval of program committee. Conducting research toward master's degree. May be repeated to maximum of 6 units. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisites: Instructor consent to act as sponsor, approval of program by departmental graduate studies committee. Directed study of advanced topics in biology. Assigned readings, conferences, lectures, and seminars. Graded CR/NC.

599 Thesis (1-9)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in thesis. May be repeated to maximum of 9 units. Graded CR/NC.
CHEMISTRY AND BIOCHEMISTRY

School of Natural and Social Sciences

DEPARTMENT OFFICE
Physical Science 616
Phone: (213) 343-2300

The Graduate Program

The objective of the thesis option and the Biochemistry option in the Master of Science degree in Chemistry is to prepare students for employment in industrial research, teaching positions in community colleges, or more advanced study toward the Ph.D. degree.

The comprehensive examination option is intended for persons in industry or government who need to develop a more current understanding of chemistry; for community college faculty preparation; and for other specific areas of chemical application in which an advanced degree is required. The comprehensive examination option is not recommended for persons who wish to continue to a doctoral program in chemistry, nor for those who intend to upgrade their laboratory research capabilities significantly.

Master of Science Degree in Chemistry

Admission to the Program

Admission to the program requires a baccalaureate in Chemistry or Biochemistry from an accredited college or university or a baccalaureate in a related field with a strong background in chemistry. Applicants interested in the Biochemistry option should have a preparation equivalent to that required for the Cal State L.A. baccalaureate in Biochemistry, which includes, among other requirements, 10 units of introductory biology, 8 units of microbiology, and 11 units of upper division biology.

All applicants are required to have a 2.5 grade point average in their last 90 quarter units. Applications for any quarter must be submitted early in the previous quarter. Students must apply to both the department and the university.

Placement Examinations

All new graduate students must take a placement examination administered by the Department of Chemistry and Biochemistry before registration. The examination covers physical, analytical, inorganic, and organic chemistry. For those specializing in Biochemistry, examinations in biochemistry and biology replace those in analytical and inorganic chemistry. The time and place are announced by the department.

Students entering the program must take all placement examinations appropriate to their area. If students do not take an examination, it is presumed that they are not proficient in the particular area, and are then required to take the complete undergraduate sequence for that area as corequisite or qualifying courses. Students who do not take or do not pass an area examination may, upon approval by the principal graduate adviser, be allowed a second opportunity to take it the next time it is given.

Requirements for the Degree (45 units)

A total of 45 units is required for the degree. Both the thesis option program in Chemistry and the option in Biochemistry consist of required courses, electives, research (597) and thesis (599), with a minimum of 26 units in 500-level courses, including 597 and 599. Of the remaining 19 units, students must take eight outside their area of specialization in chemistry. The comprehensive examination option in Chemistry consists of required courses, including advanced laboratory courses and elective courses, with a minimum of 23 units in 500-level courses. Students must comply with school and departmental requirements.

Each student's program is designed with the assistance of a faculty adviser and the student's advisory committee.

Additional Requirements

Thesis option candidates must meet the following requirements:

- Submit a thesis, which must be approved by the Department of Chemistry and Biochemistry as a part of the program.
- Pass a final oral examination, primarily about the thesis, administered by the department.

Comprehensive examination option candidates must pass written comprehensive examinations on the subjects of the required courses.

Candidates for all degree options must possess a reading knowledge of chemistry in a foreign language or complete an auxiliary coordinated program of study in computer analysis or chemical education consisting of 8–12 quarter units, 4 units of which will be in CHEM 598, taken for at least two quarters, as recommended by the graduate adviser and approved by the department graduate studies committee. These units are required in addition to the minimum required for the degree.

Language proficiency is demonstrated by passing a foreign language reading examination (FL 901) in the language selected as offered in the Department of Foreign Languages and Literatures and with approval of that department.

The language examination normally will be taken in German or Russian, or French for the Biochemistry option, although other languages will be accepted if, in the opinion of the advisory committee, a reading knowledge of the alternate language proposed would be of value to students in their professional career.

Students in the Biochemistry option will not receive graduate credit for CHEM 431ABC or 432AB and will be allowed 14 units of electives outside the field of chemistry.

Students must select the required courses for Chemistry, or for the Biochemistry option, as appropriate; however, students who have previously completed the equivalent of any of these courses will not be required to repeat them.

- Thesis Option (45 units)

Required Courses (15 units):

CHEM 420 Advanced Organic Chemistry (4)
CHEM 501 Quantum Chemistry (4)
CHEM 503 Advanced Inorganic Chemistry (4)
CHEM 580 Graduate Seminar: Chemistry (1, 1, 1)

Electives (18–20 units):

Select 18–20 units in chemistry from the following with advisor approval; include enough 500-level courses to meet department minimum of 26 units:

CHEM 414, 425, 431ABC, 432AB, 433, 440, 454L, P, 480, 503, 505, 534, 590, 598.
of the 18–20 elective units, a maximum of 9 may be outside the field of chemistry with adviser approval.

**Research and Thesis (10–12 units):**

CHEM 597 Graduate Research (6–8) and

CHEM 599 Thesis (4)

* Comprehensive Examination Option (45 units)

**Required Courses (28–30 units):**

CHEM 420 Advanced Organic Chemistry (4)

CHEM 425 Polymer Chemistry (4)

CHEM 427 Organic Chemistry (4)

CHEM 580 Graduate Seminar: Chemistry (1, 1, 1)

* CHEM 498 Cooperative Education (2)

**CHEM 401, 402, 403, 412AB, 418**, 462**

Select one of the following pairs:

CHEM 431ABC Biochemistry (3, 3, 3) plus

CHEM 501 Quantum Chemistry (4) or

CHEM 503 Advanced Biochemistry (3, 3, 3) plus

*CHEM 590 Advanced Laboratory (4)

Select 4–6 units of advanced laboratory courses, with adviser approval, from following:

CHEM 462 Instrumental Analysis (6)

*CHEM 590 Advanced Laboratory (1–4)

CHEM 597 Graduate Research (1–6)

* maximum 4 units applicable to program

Electives (15–17 units):

Select 15–17 units in chemistry from the following with adviser approval; include enough 500-level courses to meet department minimum of 26 units:

CHEM 414, 425, 432AB, 433, 440, 454L, P, 480, 503, 505, 534A, 590, 598.

Of the 15–17 elective units, a maximum of 9 may be outside chemistry with adviser approval.

**Comprehensive Examination (0 units):**

CHEM 596 Comprehensive Examination (0)

Students who select the comprehensive examination (CHEM 596) should expect to take it the quarter they complete all course work on their program and must comply with school and departmental requirements.

* Biochemistry Option (45 units)

**Required Courses (12 units):**

CHEM 503 Advanced Biochemistry (3, 3, 3)

CHEM 580 Graduate Seminar in Chemistry (1, 1, 1)

**Electives (7–23 units):**

Select from the following with adviser approval; include sufficient 500-level courses to meet department minimum of 26 units:


Additional electives (0–14 units):

Select an additional 0–14 units outside chemistry with adviser approval.

**Research and Thesis (10–12 units):**

CHEM 597 Graduate Research (6–8) and

CHEM 599 Thesis (4)

**Certificate Program in Industrial Chemistry**

The Department of Chemistry and Biochemistry offers a credit certificate program in Industrial Chemistry for postbaccalaureate and graduate students. This program is designed to develop skills in instrumental analysis by providing a broad range of experience with instrumental methods and modern techniques to complement students' theoretical preparation in chemistry. The program is intended to enhance the ability of advanced students to function effectively in industrial and government laboratory positions in chemistry.

The program requires completion of a total of 16 units of 400- and 500-level courses that are available for work with a B (3.0) grade point average. Some courses taken to meet requirements of this program may also be applied toward the master's degree program in Chemistry. A bachelor's degree in Chemistry is required for admission to the program. Refer to the Graduate and Postbaccalaureate Study chapter of this catalog for general regulations governing all graduate level certificate programs.

**Requirements for the Certificate (16 units)**

**Required Courses (16 units):**

CHEM 425 Polymer Chemistry (4)

CHEM 440 Industrial Chemistry (4)

CHEM 498 Cooperative Education (2)

CHEM 580 Graduate Seminar: Chemistry (2)

CHEM 590 Advanced Laboratory (4)

Students may substitute other appropriate courses with adviser approval.

**Courses in Chemistry (CHEM)**

**400-level Courses**

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser:

**Chemistry, M.S. (thesis option):**

CHEM 401, 402, 403, 412AB, 418**, 462**

**Chemistry, M.S. (comprehensive examination option):**

CHEM 401, 402, 403, 412AB, 418**

**Chemistry, M.S. (Biochemistry option):**

CHEM 401, 431ABC, 432AB

**Student may petition to waive the rule regarding this course.**

**Graduate Courses**

**Classified graduate standing is required for admission.**

501 Quantum Chemistry (4)

Prerequisites: CHEM 402, 403. Quantum chemistry, including discussion of molecular orbital and valence bond theories and their applications to chemistry.

503 Advanced Biochemistry (3)

Prerequisites: CHEM 431ABC, 432AB. Recent concepts of enzyme systems, biological oxidation, intermediate metabolism, biosynthesis of macromolecules, biochemical genetics, metabolic regulation, and related phenomena. May be repeated as subject matter changes to a maximum of 12 units.

504 Advanced Inorganic Chemistry (4)

Prerequisite: CHEM 418. Selected topics on structure and mechanism in inorganic chemistry, discussion of modern theories applied to inorganic chemistry.
505 Special Topics in Graduate Chemistry (4)
Prerequisite: Instructor consent. Specialized topics in chemistry given at an advanced level. May be repeated once for credit.

534 Seminar: Clinical Biochemistry (3)
Prerequisites: CHEM 431ABC, 432AB, 433. Recent developments in clinical biochemistry, with emphasis on abnormal protein, lipid and carbohydrate metabolism, hormone assay, and endocrine functions.

580 Graduate Seminar: Chemistry (1)
Attendance at regular departmental seminar program; participation in seminar training program with course instructor; presentation of a satisfactory departmental seminar. May be repeated to maximum of 3 units. Graded CR/NC.

590 Advanced Laboratory (1-2)
Prerequisites: CHEM 302B; 412B or 432B or 433. Introduction to advanced laboratory techniques involving individual student projects. May be repeated four times to maximum of 6 units; maximum of 4 units may be applied to M.S. degree. Combined units of CHEM 590, 597, 598, and 599 may not exceed 15.

597 Graduate Research (1-4)
Prerequisite: Approval of departmental adviser. Research leading toward M.S. degree. Graduate students must earn a minimum of 6 and a maximum of 8 units. Combined units of CHEM 590, 597, 598, and 599 may not exceed 15. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in the field, regular conferences with sponsor. Student's progress determined by oral and/or written reports. May be repeated for credit; combined units of 597 and 598 may not exceed 13. Combined units of CHEM 590, 597, 598, and 599 may not exceed 15.

599 Thesis (1-4)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in thesis and oral defense thereof. May be repeated to maximum of 4 units. Combined units of CHEM 590, 597, 598, and 599 may not exceed 15. Graded CR/NC.
CHICANO STUDIES

School of Natural and Social Sciences

DEPARTMENT OFFICE
King Hall C3095
Phone: (213) 343-2190

The Master of Arts degree in Mexican-American Studies is designed for graduate students who wish to pursue advanced study toward the Ph.D. degree, or teach in community colleges, or secondary, or elementary schools; or work as professionals in private agencies or government service. An option is offered in Professional Teacher Preparation.

Master of Arts Degree in Mexican-American Studies

Admission to the Program
Prerequisites to admission are a baccalaureate in Mexican-American Studies or a related field, with at least 20 upper division units in Chicano Studies courses including CHS 403, 410, and 444. Students who lack prerequisite courses must complete them with a B (3.0) average or better.

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 23 in 500-level courses.

Language Requirement
Candidates for the master's degree in Mexican-American Studies must demonstrate proficiency in the Spanish language before beginning thesis work or attempting the comprehensive examination by one of the following methods:
- Passing the Foreign Language Reading Examination (FL 901) in Spanish as offered by the Department of Foreign Languages and Literatures and in accordance with the practices of that department
- Passing a 400-level, four-unit Spanish course with a grade of C or better. This course may not be used as an elective for the master's degree.

Required Courses (23 units):
CHS 501AB Seminar: Theory and Method in Chicano Studies (4-3)
CHS 504 Seminar: Chicano Psychological Issues (4)
CHS 505 Seminar: Chicano Literature (4)
CHS 506 Seminar: Chicano History (4)
CHS 509 Interdisciplinary Seminar in Chicano Studies (4)

Electives (4-22 units):
Remaining course work may include 400- and 500-level courses in Chicano Studies and appropriate related fields selected with departmental consultation and approval.
- Professional Teacher Preparation Option
Select 12 units with adviser approval in consultation with the School of Education. Core courses required for the partial credential shall not qualify for this option. This option must be declared before advancement to candidacy.

Comprehensive Examination or Thesis (0-6 units):
CHS 596 Comprehensive Examination (0) or
CHS 599 Thesis (6)
A comprehensive examination or a thesis is required for the master's degree. Students should expect to take the comprehensive examination (CHS 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

Courses in Chicano Studies (CHS)

400-Level Courses
All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission.

501AB Seminar: Theory and Method in Chicano Studies (4-3)
Prerequisite: CHS 450 recommended for 501B. Advanced analysis of Chicano Studies with emphasis on behavioral theory and methodologies applied to special fields of culture, including history, psychology, politics, education, economics, language; emphasis on current social issues.

504 Seminar: Chicano Psychological Issues (4)
Prerequisite: PSY 150 or CHS 410. Selected psychological issues of Chicanos including such topics as cultural psychodynamics, the fully functioning Chicano, special psychological problems, therapy and counseling effectiveness, and social psychological models.

505 Seminar: Chicano Literature (4)
Prerequisite: CHS 403. Literary genres within Chicano literature in relation to the cultural and social context of Chicanos.

506 Seminar: Chicano History (4)
Prerequisite: CHS 444. Advanced study of Chicano historiography readings, reviews, discussions, oral reports, and research proposals.

509 Interdisciplinary Seminar in Chicano Studies (4)
Prerequisite: Advancement to candidacy in master's degree program. Interdisciplinary investigation and discussion of selected topics in Chicano studies.

598 Graduated Directed Study (1-4)
Prerequisite: Consent of faculty sponsor, approved study prior to registration. Directed reading and critical analysis of advanced topics in Chicano Studies. Regular conference with sponsor. May be repeated for credit to maximum of 6 units.

599 Thesis (1-6)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, departmental approval of topic prior to registration. An oral examination about the thesis is required. Must be repeated to total of 6 units. Graded CR/NC.
School of Natural and Social Sciences

DEPARTMENT OFFICE
King Hall C4067
Phone: (213) 343-2220

The Master of Arts degree program in Geography is designed to prepare students for teaching at the secondary and community college levels, employment in government and private industry, and further graduate study in geography.

Master of Arts Degree in Geography

Admission to the Program

Applicants must possess a baccalaureate in geography or a baccalaureate in another field and 35 quarter units of upper division geography courses or equivalent. Applicants whose undergraduate major was not geography must have a minimum 2.75 grade point average (A = 4.0) in the last 90 quarter units attempted, a minimum B (3.0) grade point average in all geography courses attempted, and must have completed 16-32 quarter units of geography courses. Those who have completed no lower division course work in geography must complete GEOG 370 (World Regions) or equivalent.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses.

Before enrolling in GEOG 599 or taking the comprehensive examination (GEOG 596), students must satisfy one of the following requirements, subject to principal graduate adviser approval:

- Pass a foreign language reading examination (FL 901) in the geographic literature of a foreign language, as offered by the Department of Foreign Languages and Literatures and in accordance with the practice of that department.
- Complete 12 units in a foreign language in accordance with the practice of that department.
- Complete CIS 294 or CS 290 with a grade of B or higher.
- Pass an examination in statistical methods in geography administered by the department.
- Complete an upper division statistics course with a grade of B or higher.

Geography Core Seminars (4 units):

GEOG 530 Seminar: Urban Social Systems (4)
GEOG 570 Seminar: Nature of Geography (4)
GEOG 571 Seminar: Regional Geography (4)
GEOG 575 Seminar: Human Geography (4)
GEOG 580 Seminar: Physical Geography (4)

Select electives with the approval of the principal graduate adviser. Students may repeat GEOG 571, 575, and 580, provided the seminar topic is not repeated in the exact area and theme.

Electives in Geography and Related Fields (20–29 units):

Select 400- and 500-level GEOG courses. Students who elect the comprehensive examination option must include a minimum of 7 units at the 500 level. With approval of the principal graduate adviser a maximum of 8 units may be in related fields.

Comprehensive Examination or Thesis (0, 6–9 units):

Students who select the comprehensive examination must include a minimum of 29 units in Electives in Geography and Related Fields above, should expect to take the examination (GEOG 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

The examination consists of a section about geographic theory plus sections about two of the following areas selected by the student: advanced regional geography, advanced physical geography, advanced human geography, geography research techniques.

Students who elect to write a thesis will need to enroll in GEOG 599 for a minimum of two quarters and a total of 6–9 units. In addition to the 16 units of required core seminars, these students need to complete a minimum of 20-23 units of electives to satisfy the 45-unit requirement for the master's degree.

Courses in Geography (GEOG)

400-level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission.

530 Seminar: Urban Social Systems (4)
(also listed as SOC 530)
Prerequisite: Instructor consent. Growth and nature of urban social systems in selected cities and metropolitan areas; theories of urban structure and problems; improving quality of urban life; comparisons of cities in various countries.

570 Seminar: Nature of Geography (4)
Prerequisite: Instructor consent. History, objectives, and methods of geography.

571 Seminar: Regional Geography (4)
Prerequisite: Instructor consent. Selected regions of the world. May be repeated as subject matter changes.

575 Seminar: Human Geography (4)
Prerequisite: Instructor consent. Selected topics pertaining to geography of man. May be repeated as subject matter changes.

580 Seminar: Physical Geography (4)
Prerequisite: Instructor consent. Seminar on nature, origin, and areal occurrence of physical qualities of the land (climate, landforms, water, soils, and vegetation). May be repeated as subject matter changes.

598 Graduate Directed Study (1–4)
Prerequisite: Instructor consent to act as sponsor. Project selected in conference with sponsor.

599 Thesis (1–6)
Prerequisites: Advancement to candidacy, approval of department, completion of course work in master's program, completion of foreign language or upper division statistical or computer skill requirement. May be repeated to maximum of 9 units. Graded CR/NC.
The objective of the Master of Science degree in Geology is to prepare students for professional level employment in industry and government, teaching positions in community colleges, or advanced study toward the Ph.D. degree. A student may achieve this objective by completing the program with either a thesis or a comprehensive examination.

Cooperative Master of Science Degree

The Department of Geological Sciences participates in a cooperative program with California State University campuses at Long Beach and Northridge. This cooperative program enables students to apply an unrestricted number of courses from the participating campuses toward the M.S. degree. Students take part on a voluntary basis and are not required to enroll at the Long Beach or Northridge campuses. The cooperative program offers students the advantage of utilizing the faculty and equipment of a larger part of the California State University system.

Admission to the Program

Admission requirements include possession of a bachelor's degree in Geology, or equivalent, from an accredited college or university, with a minimum 2.75 grade point average in the last 90 quarter units and upper division course work substantially equivalent to that required of Cal State L.A. Geology majors. Applicants who are lacking appropriate upper division geology courses may be admitted to the program but will be expected to remove any deficiencies by completing appropriate courses selected through consultation with the graduate adviser.

Application Procedures

Applications for any quarter should be submitted early in the preceding quarter both to the Department of Geological Sciences and to the university. In addition to the specific prerequisites stated above, students must meet university requirements for admission to graduate study.

Requirements for the Degree (45 units)

The graduate program requires 45 quarter units of work including 22.5 units of 500-level courses chosen with adviser approval. All students must complete Graduate Research (GEOL 597) and either a thesis (GEOL 599) or the comprehensive examination (GEOL 596).

The comprehensive examination must be taken no later than one quarter following completion of all course work. A student who has selected the thesis track by enrolling in GEOL 599 or the comprehensive examination track by enrolling in GEOL 596 may not later change to the other option.

With approval of the department graduate adviser, students may substitute appropriate 400- or 500-level courses from related areas in science, mathematics, or engineering in the official program to a maximum of 13.5 quarter units.

Courses in Geology (GEOL)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser: GEOL 401AB, 402, 410, 420, 430, 431, 460AB, 497, 499

Graduate Courses

Classified graduate standing is required for admission.

510 Paleontology (4.5)

Prerequisites: Advanced undergraduate courses in invertebrate paleontology, and stratigraphy or micropaleontology. Seminars in various topics in invertebrate paleontology, such as biostatigraphy, paleoecology, and functional morphology. May include field or laboratory investigations. May be repeated as subject matter changes.

520 Stratigraphic Analysis (4.5)

Prerequisites: GEOL 460AB. Principles and techniques of stratigraphic analysis, with emphasis on reconstruction of environment of deposition and paleoecography. Approximately half of laboratory devoted to field studies.

525 Sedimentary Processes, Environments, and Structures (4.5)

Prerequisites: GEOL 402, 430. Identification and analysis of sedimentary structures and hydrodynamically generated bedforms to determine sedimentary processes and environments of deposition.

530 Seminar: Structural Geology and Tectonics (4.5)

Prerequisite: GEOL 410 or upper division course in structural geology. Critical review of selected topics concerning analysis, interpretation, and origin of geologic structures, mechanics of rock deformation and of large scale crustal deformation.

531 Tectonic Problems of Southern California (4.5)

Prerequisite: GEOL 410 or upper division course in structural geology. Current topics in the geotectonic evolution of southern California.

533 Seminar: Quaternary Geology (4.5)

Prerequisite: GEOL 430. Studies of Quaternary climate, geomorphology, and soils including interglacial and glacial history.

534 Volcanology (4.5)

Prerequisites: GEOL 401AB. Mineralogy, petrology, geochemistry, tectonics, and geomorphology of volcanos and volcanic processes.

540 Igneous Petrology (4.5)

Prerequisites: GEOL 400, 401AB. Advanced study of occurrence and petrogenesis of igneous rocks. Laboratory includes microscopic study of selected rock suites and application of instrumental techniques of igneous rocks.

541 Metamorphic Petrology (4.5)

Prerequisites: GEOL 400, 403. Advanced study of occurrence, origin, and interpretation of metamorphic rocks. Laboratory includes microscopic study of rock suites.
550 Crystal Chemistry (4.5)
Prerequisite: GEOL 470. Seminars in crystal chemistry, emphasizing structural and chemical mineralogy, determinative methods, mineral synthesis, and computer applications. May be repeated for credit.

555 Geochemistry (4.5)
Prerequisite: GEOL 370 or upper division course in geochemistry. Methods of radio-metric age determination, including dating of igneous and metamorphic rocks and sediments; use of lead and strontium as natural tracers; light stable isotopes, oxygen, carbon, and sulfur as petrogenetic indicators in igneous rocks and ore-forming processes.

570 Special Topics (2-4.5)
Prerequisite: Instructor consent. Discussion of selected topics in geology. May include up to 2 units of laboratory. May be repeated for credit as subject matter changes.

581 Seminar: Engineering Geology (4.5)
Prerequisite: GEOL 481 or senior course in engineering geology. Advanced study relating geologic factors to engineering projects, with emphasis on slope stability, subsidence, engineering seismology, and construction problems related to engineering geology.

582 Hydrology (4.5)
Prerequisite: GEOL 484. Advanced study of groundwater topics including transmissivity, storage capacity, water quality, hydrologic inventory, and numerical methods. Includes field pumping test and its analysis.

583 Engineering Geomorphology (4.5)
Application of geomorphic analysis to engineered structures; techniques and methods of evaluating landscape evolution during last 50,000 years.

597 Graduate Research (1.5–4.5)
Prerequisites: Instructor consent to act as sponsor, approval of project by student's graduate advisory committee. Independent research under guidance of faculty. Graded CR/NC.

596 Graduate Directed Study (1.5–4.5)
Prerequisite: Instructor consent to act as sponsor. Directed research on subjects selected in consultation with faculty. May be repeated to maximum of 6 units.

599 Thesis (1.5–4.5)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor. Presentation of independent research work in a written thesis, which is defended orally. Graded CR/NC.
HISTORY

School of Natural and Social Sciences

DEPARTMENT OFFICE
King Hall C4066
Phone: (213) 343-2020

The Master of Arts degree in History is designed for the attainment of a liberal education appropriate to careers in such professions as law, journalism, business, government service, and librarianship, as well as preparation for teaching and further graduate study.

The program requires intensive study involving courses, seminars, and directed reading in preparation for comprehensive examinations or a thesis. Students should obtain reading lists well before the examination from the examining faculty member in each field.

Master of Arts Degree

Admission to the Program
In addition to university requirements for admission to graduate study, applicants without a baccalaureate in history must have completed HIST 190 and 493 plus 20-28 units of approved upper division history courses with a minimum B (3.0) average.

Requirements for the Degree (48-52 units)
A minimum of 48 or 52 units is required, depending on whether the student selects a thesis or comprehensive examinations, with at least 24 in 500-level courses.

Required Courses (24 units):
Select six 500-level history courses, with adviser approval, for a total of 24 units.

Electives (24 units):
Select 400- or 500-level courses in history with adviser approval. Courses outside history may be substituted to maximum of 8 units, with adviser approval.

Comprehensive Examinations or Thesis (0-4 units):
Students must successfully complete either comprehensive examinations or a thesis.

A. Comprehensive Examinations (0 units)
Candidates must demonstrate a reading comprehension in one foreign language or competence in computer applications and statistics before they may attempt the history comprehensive examinations. They must demonstrate this competence within 10 years prior to achievement of classified standing in one of the following ways:
- Passing a foreign language reading examination (FL 901) in the historical literature of a foreign language, as offered by the Department of Foreign Languages and Literatures and in accordance with the practice of that department;
- Completing 12 units in one foreign language with a grade of B or better in each course; or
- Completing 12 units in statistics and computer courses (minimum 4 units in each area), as approved by the department adviser, with a minimum B grade in each course.

Comprehensive examinations must be passed in three fields chosen from two or more areas listed below. Flexibility for options within these fields can be arranged. Students should expect to take the comprehensive examinations (HIST 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

Fields Available for Comprehensives:

Area One: United States
United States to 1876
United States since 1850 (with possible concentration on the West or social and intellectual history)

Area Two: Western Civilization and Europe
Ancient (with possible concentration on Greece or Rome)
Medieval (with possible concentration on Early Medieval to 1100 or Late Medieval after 1100)
Modern: 1789–present (with possible concentration on British peoples, Russia/Soviet Union, or history of science)

Area Three: The Non-Western World
Middle East
Asia. (with possible concentration on East Asia or South Asia)
Africa
Latin America
B. Thesis (4 units)
HIST 599 Thesis (4)

Students who select the thesis option will complete a minimum of 52 units for the degree.

Courses in History (HIST)

400-level Courses

All 400-level courses may be applied toward master's degree requirements, except the following, subject to limits established by the department and approval of the graduate adviser: HIST 499

Graduate Courses

Classified graduate standing is required for admission.

510 Seminar: History of Science (4)
Readings, discussion, and research paper on topics in internal history of science and in social relations of science. May be repeated for credit.

519 Seminar: Ancient History (4)
Readings, discussion, and paper on topics in Greek or Roman history. May be repeated for credit.

520 Seminar: History of Middle Ages (4)
Readings, discussion, and research paper. May be repeated for credit.

522 Seminar: Middle Eastern History (4)
Readings, discussion, and research paper. May be repeated for credit.

532 Seminar: Early Modern European History (4)
Readings, discussion, and research paper. May be repeated for credit.
533 Seminar: Recent European History (4)
Readings, discussion, and research paper in modern European history. May be repeated for credit.

540 Seminar: British History (4)
Readings, discussion, and research paper. May be repeated for credit.

542 Seminar: Russian History (4)
Readings, discussion, and research paper. May be repeated for credit.

550 Seminar: Special Studies (4)
Topics of special interest that transcend cultural and chronological lines, as announced in Schedule of Classes. May be repeated for credit as subject matter changes.

561 Seminar: History of Modern Mexico (4)
Readings, discussion, and research paper. May be repeated for credit.

562 Seminar: Latin American History (4)
Latin American historiography; research in selected topics in Latin American history excluding modern Mexico. Readings, discussion, oral reports, and research paper. May be repeated for credit.

571 Seminar: Early History of U.S. (4)
Readings, discussion, and research paper. May be repeated for credit.

575 Seminar: Recent History of U.S. (4)
Readings, discussion, and research paper. May be repeated for credit.

577 Seminar: American Social and Intellectual History (4)
Readings, discussion, and research paper. May be repeated for credit.

581 Seminar: History of the U.S. West (4)
Readings, discussion, and research paper. May be repeated for credit.

591 Seminar: Recent Asian History (4)
Readings, discussion, and research paper. May be repeated for credit.

598 Graduate Directed Study (1-4)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.

599 Thesis (1-4)
Prerequisites: Advancement to candidacy, instructor consent to act as thesis director, departmental approval of topic prior to registration; Independent research resulting in a thesis. Must be repeated to total of 4 units. Graded CR/NC.
The Master of Arts degree program in Latin American Studies is designed to provide a multidisciplinary approach to the study of one of the world's major regions. The program also provides advanced training for students who wish to pursue careers in teaching, government service, or commerce.

**Admission to the Program**

Admission is governed by university requirements for admission to graduate study. New graduate students must consult with the Latin American Studies graduate adviser before registration for assistance in planning their program and to evaluate their program prerequisites.

**Program Requirements**

A minimum of 20 units in upper division Latin American content courses is prerequisite to the program; LAS 497 is a corequisite. Students who have not met these requirements through courses taken as an undergraduate must take courses in two or more departments in postbaccalaureate standing. In exceptional cases the Latin American Studies graduate studies committee may waive a portion of these prerequisites.

**Language Requirement**

Students must demonstrate written and oral competence in Spanish or Portuguese before they may be advanced to candidacy by passing a foreign language reading examination (FL 901) in the language selected, as offered by the Department of Foreign Languages and Literatures and with approval of that department.

**Requirements for the Degree (minimum 45 units)**

A total of 45 units is required, with at least 23 in 500-level courses. The program involves study in seminars and courses. It offers considerable flexibility for students to pursue individual interests and particular career goals. Students must have a minimum of 5 graduate level courses, distributed in at least 3 fields, chosen from: anthropology, art, business, economics, education, geography, history, political science, sociology, and Spanish. Other fields may be included in consultation with the adviser. The necessary language proficiency is established by examination. Students have the option of passing a comprehensive examination or writing a thesis as the final phase of the degree program.
Thesis (2–9 units):
Instead of the comprehensive examinations, students may choose to write an interdisciplinary thesis under the guidance of a three-member faculty committee selected in consultation with an adviser. Students making this choice must enroll in LAS 599, in which a maximum of 9 units may be taken.

Immediately following completion of the comprehensive examinations or thesis, students must pass an oral examination conducted by a three-member faculty committee.

Courses in Latin American Studies (LAS)

Graduate Courses

**Classified graduate standing is required for admission.**

508 Seminar: Latin American Social Systems (4)
Recommended prerequisites: ANTH 404 or 408, reading competence in Spanish or Portuguese. Analysis of selected aspects of contemporary Latin American social systems. May be repeated for credit.

590 Interdisciplinary Seminar: Latin American Studies (4)
Prerequisite: LAS 497. Interdisciplinary investigation and discussion of selected Latin American topics. May be repeated for credit.

598 Graduate Directed Study (1–4)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated for credit.

599 Thesis (1–9)
Prerequisites: Instructor consent to act as sponsor, approval of topic prior to registration. Independent research resulting in a thesis. May be repeated to maximum of 9 units. Graded CR/NC.

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All 400-level courses listed in the undergraduate major, general option, may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser: LAS 497.
The Graduate Program

Master of Science Degree in Computer Science

A Master of Science degree program has been developed and is awaiting final approval for implementation. Consult the Department of Mathematics and Computer Science office for further information.

Master of Science Degree in Mathematics

The Master of Science degree in Mathematics is offered in two options. Option 1 is a flexible program that can be concentrated on pure mathematics or incorporate elements of both pure and applied mathematics. Option 2 emphasizes applied mathematics. Both options prepare the student for higher mathematical work in industry, business, or government, for teaching in a community college, and for further graduate work in the respective areas.

Admission to the Program

Admission is governed by general university requirements for admission to graduate study.

Requirements for the Degree (minimum 45 units)

A minimum of 45 units is required, with at least 23 in 500-level courses. Students must successfully complete either comprehensive examinations or a thesis in addition to course requirements.

Comprehensive Examination or Thesis (0, 1-4 units):

MATH 596 Comprehensive Examination (0) or
MATH 599 Thesis (1-4)

A. Comprehensive Examination

Students must pass Option 1 written comprehensive examinations in 3 of 4 areas: topology, abstract algebra, complex analysis, and real analysis; for Option 2, 4 areas: applied linear analysis, calculus of variations, complex analysis, and numerical analysis. Students should expect to take the comprehensive examinations (MATH 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

B. Thesis

Subject to approval by graduate adviser, students may be permitted to write a thesis in lieu of taking comprehensive examinations. If the thesis is accepted, a maximum of 4 units of MATH 599 may be applied to the master's degree program.

• Option 1: General Mathematics

The candidate’s baccalaureate preparation should be substantially equivalent to that required for Cal State L.A.'s Bachelor of Arts degree in Mathematics.

Required Courses (12 units—select three from following):

MATH 530 Topology (4)
MATH 540AB Abstract Algebra I, II (4,4)
MATH 562 Advanced Complex Analysis (4)
MATH 580 Real Analysis (4)

Electives (12 units):

Select from 500-level MATH courses including at least one seminar (550, 551, 552, or 553).

Electives (21 units):

Select from 400- and 500-level courses with graduate adviser approval and no more than 12 units in nonmathematics courses.

• Option 2: Applied Mathematics

The candidate's undergraduate preparation should be substantially equivalent to that required for Cal State L.A.'s Bachelor of Science degree in Mathematics.

Required Courses (28 units):

MATH 502AB Applied Linear Analysis I, II (4, 4)
MATH 520 Calculus of Variations (4)
MATH 521 Mathematical Models and Optimizations (4)
MATH 556 Advanced Complex Analysis (4)
MATH 570AB Advanced Numerical Analysis (4, 4)

Electives (17 units):

Select 400- and 500-level CS and MATH courses. With graduate adviser approval, 8 units may be taken in business, economics, engineering, or physics. At least 4 units must be 500 level.

Courses in Computer Science (CS)

400-level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission.

510 Computer Systems Architectures and Uses (4)
Prerequisite: CS 440. Nontraditional computer architectures and extensions of traditional architectures; implications for operating systems and programming languages; analysis of local and distributed computer networks; supporting theories.

512 Analysis of Algorithms (4)
Prerequisite: CS 412, 486. Computational complexity; worst-case and average-case analysis of algorithms for common computational tasks, including sorting, matrix multiplication, fast Fourier transform, graph problems.

522 Database and Knowledge Base Management Systems (4)
Prerequisite: CS 422. Advanced data models such as E/R and temporal logic; knowledge bases and storing rules as data; distributed data bases and transaction management; data bases for nontraditional data.

532 Theory of Programming Languages (4)
Prerequisite: CS 432. Specifications of programming languages using denotational and axiomatic semantics, applications to program verification; type theory and other issues in design and specifications of programming languages.
537 Advanced Software Engineering (4)
Prerequisite: CS 437: The software development life cycle, software project management, software engineering environment.

555 Topics in Combinatorics, Graphs, and Networks (4)
Prerequisite: CS 412. Selected topics in combinatorics, graphs, and networks; emphasis on applications to computer science and implementation of algorithms; topics vary according to instructor.

575 Mathematical Programming (4)
Prerequisite: MATH 470. Combinatorial optimization methods including linear programming, network flows, dynamic programming; special emphasis on large scale problems, data structures, coding, and implementation of selected algorithms.

586 Theory of Computation (4)
Prerequisite: CS 486. Theoretical study of foundations of current models of computation; topics include Turing machines, partial recursive functions, decidability, undecidability, Church’s hypothesis, NP-complete problems, intractable problems.

590 Seminar: Computer Science (4)
Prerequisite: Instructor consent. Recent developments in computer science, study of new areas of interest, review of current literature.

598 Graduate Directed Study (1-4)
Prerequisite: Instructor consent. Independent study of advanced topics in computer science; may be repeated to maximum of 4 units.

599 Thesis or Project (1-4)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, and departmental approval of topic prior to registration. Independent work resulting in a thesis or project. May be repeated to maximum of 4 units. Graded CR/NC.

Courses in Mathematics (MATH)

400-level Courses

All 400-level courses may be applied toward master’s degree requirements except the following, subject to limits established by department and approval of graduate advisor: MATH 401, 454, 455, 465.

Graduate Courses

Classified graduate standing is required for admission.

501 Nonlinear Differential Equations (4)
Prerequisites: MATH 215 or 401; 466. Vector matrix notation, stability in nonlinear systems, Poincare phase plane, method of Liapounov, perturbation techniques.

502A Applied Linear Analysis I (4)
Prerequisites: MATH 215 or 401; 255; 410 or 467. Function Spaces, convergence, inner product, bounded linear operators, integral operators and integral equations, adjoint operators, expansion in eigenfunctions, resolvent kernel.

502B Applied Linear Analysis II (4)
Prerequisite: MATH 502A. Unbounded operators, differential operators of second order, Sturm-Liouville operators, eigenvalues and eigenfunctions, Green’s Functions, and additional topics.

520 Calculus of Variations (4)
Prerequisites: MATH 255, 466. Euler-Lagrange equation for various types of extremal problems; fixed and variable points; broken extremals; variational problems with constraints; canonical form and direct methods.

521 Mathematical Models and Optimizations (4)
Prerequisites: MATH 215, 255, 474. Topics from: Markov chains and decision theory, game theory, programming algorithms, models for growth processes, applied graph theory, and theory of maxima and minima.

525 Approximation Theory (4)
Prerequisites: MATH 466; approval of the instructor. Density theorems, existence, uniqueness, characterization and degree of best approximation, processes of approximation; other topics of current interest.

530 Topology (4)
Prerequisite: MATH 465. Basic concepts of point set topology: mappings, compactness, connectedness, separation properties, and metrization.

540AB Abstract Algebra I, II (4, 4)
540A: Prerequisite: MATH 455. Theory of groups, introduction to rings.
540B: Prerequisite: MATH 540A. Theory of rings and fields.

550 Seminar: Algebra
Prerequisite: Approval of instructor. Readings and discussion of topics from group theory, ring theory, linear algebra, discrete mathematics, and combinatorics. May be repeated to maximum of 8 units.

551 Seminar: Analysis (4)
Prerequisite: Approval of instructor. Readings and discussion of topics from real analysis, complex analysis, functional analysis, and applied analysis. May be repeated to maximum of 8 units with approval of graduate adviser.

552 Seminar: Topology and Geometry (4)
Prerequisite: Approval of instructor. Readings and discussion of topics from general and algebraic topology, differential topology and geometry, and geometrical foundations. May be repeated to maximum of 8 units with approval of graduate adviser.

553 Seminar: Applied Mathematics (4)
Prerequisite: Approval of instructor. Readings and discussions of selected topics in field. May be repeated to maximum of 8 units with approval of graduate adviser.

562 Advanced Complex Analysis (4)
Prerequisite: MATH 463. Laurent series, singularities, residue problems, contour integration, conformal mapping, and additional topics.

570ABC Advanced Numerical Analysis (4, 4, 4)
570A: Prerequisite: MATH 471. Numerical solution of linear systems of equations, finite difference approximation to elliptic partial differential equations.
570B: Prerequisite: MATH 570A. Numerical solution of parabolic and hyperbolic partial differential equations; consistency, convergence, stability.
570C: Prerequisite: MATH 570B. Numerical solution of ordinary and partial differential equations, eigenvalue problems, nonlinear systems, approximation theory, finite elements, integral equations.

580 Real Analysis (4)
Prerequisite: MATH 466. Theory of Lebesgue measure on the real line, theory of the Lebesgue integral and related convergence theorems.
584 Advanced Probability Theory (4)
Prerequisite: MATH 580. Probability spaces, random variables; abstract probability integrals, moments, convergence theorems; distribution and characteristic functions; central limit theorems; dependence.

591 Functional Analysis (4)
Prerequisite: MATH 580. Banach spaces, Hilbert spaces, linear functionals and operators, spectral theory.

598 Graduate Directed Study (1-4)
Prerequisite: Instructor consent. Independent study of advanced topics in mathematics; regular conferences with instructor. May be repeated once.

599 Thesis (1-4)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis. May be repeated to maximum of 4 units. Graded CR/NC.
# MICROBIOLOGY

School of Natural and Social Sciences

**DEPARTMENT OFFICE**

Biological Science 140  
Phone: (213) 343-2030

Two options exist within the Master of Science degree in Microbiology. Objectives of the thesis option are to prepare for continued graduate work leading to the doctorate; to train for positions in industry, university, hospital, and public health laboratories that require the master's degree; to qualify for city, state, and federal civil service positions for which the master's degree and five years of experience are required; to train prospective community college microbiology and medical technology teachers. The course option provides postgraduate training for persons who need further academic work to advance in their field or update their training in the areas of medical technology, public health, and microbiology.

## Master of Science Degree

**Admission to the Program**

In addition to university requirements for admission to graduate study, applicants must have an undergraduate degree in Microbiology, Bacteriology, or Medical Technology with training equivalent to the department's baccalaureate program and must be accepted by the department's graduate studies committee. A score of 400 on either the Verbal or Quantitative section of the GRE General Test is required.

**Requirements for the Degree** (45 units)

A total of 45 units is required, with at least 23 in 500-level courses.

**Required Courses** (select 15 units from following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR 503</td>
<td>Seminar: Special Topics in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MICR 510</td>
<td>Microbial Genetics</td>
<td>3</td>
</tr>
<tr>
<td>MICR 520</td>
<td>Advanced Immunology</td>
<td>3</td>
</tr>
<tr>
<td>MICR 530</td>
<td>Advanced Microbial Physiology</td>
<td>3</td>
</tr>
<tr>
<td>MICR 580</td>
<td>Graduate Seminar: Microbiology (1, 1, 1)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 503</td>
<td>Seminar: Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 534</td>
<td>Seminar: Clinical Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

**Thesis Option** (30 units)

**Electives** (15 units):

Select from 400- or 500-level courses with adviser approval.

**Research and Thesis** (15 units):

Thesis option candidates must submit an acceptable thesis based on research and take an oral examination in defense of the thesis.

**Course Option** (30 units)

Candidates specializing in Public Health must include 18 units in three or more courses relating to environmental health aspects of food, water supplies, water oriented recreation, waste water disposal and reclamation, occupational health, housing and institutions, vector control, solid wastes, and safety.

*Required Courses (select 30 units from following):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR 503, 510, 520, 530, 580</td>
<td>BIOL 501, 515, 537, 539</td>
<td>CHEM 503, 534</td>
</tr>
</tbody>
</table>

**MGMT 501, 564**

*Nincluding MICR and CHEM courses not used in core*

**Comprehensive Examination (0 units):**

Students should expect to take the comprehensive examination (MICR 596) the quarter they complete all course work on their program and must comply with school and department requirements.

## Courses in Microbiology (MICR)

**400-level Courses**

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser: MICR 401, 430, 433

**Graduate Courses**

*Classified graduate standing is required for admission.*

**503 Seminar: Special Topics in Microbiology** (3)

Prerequisite: Instructor consent. Special topics of current interest in microbiology as announced in Schedule of Classes. May be repeated, as subject matter changes, to maximum of 9 units.

**510 Microbial Genetics** (3)

Prerequisites: MICR 200AB, BIOL 315. Concepts of microbial genetics, including dissociation, transformation, transduction, gene transfer, and biochemical mutation; laboratory techniques, practical aspects such as antibiotic resistance. Lecture 3 hours.

**520 Advanced Immunology** (3)

Prerequisite: Consent of graduate adviser. Advanced principles and concepts of immunology, fundamental biological significance of the immune reaction.

**530 Advanced Microbial Physiology** (3)

Prerequisite: Consent of graduate adviser. Biochemical aspects of microbial physiology and metabolism, with special emphasis on recent advances in field.

**580 Seminar: Microbiology** (1)

*Attendance at departmental seminar program; participation in seminar training; presentation of a satisfactory departmental seminar. Must be repeated to maximum of 3 units. Graded CR/NC.*

**597 Graduate Research** (1-4)

Prerequisites: Instructor consent to act as sponsor, successful performance on departmental qualifying examination. Independent research under guidance of faculty. Must be repeated to maximum of 4 units. Graded CR/NC.

**598 Graduate Directed Study** (1-4)

Prerequisite: Instructor consent to act as sponsor. Directed study of advanced topics in microbiology. Must be repeated to maximum of 4 units.

**599 Thesis** (7)

Prerequisites: MICR 597, instructor consent to act as sponsor. Independent research resulting in a thesis. Must be repeated to maximum of 7 units. Graded CR/NC.
School of Natural and Social Sciences

DEPARTMENT OFFICE
Physical Science 315
Phone: (213) 343-2100

The Master of Science degree in Physics is designed to prepare students for community college teaching, employment in industry, or further graduate study toward the doctorate in Physics.

Master of Science Degree in Physics

Admission to the Program

Applicants must meet university requirements for admission to graduate study. Before undertaking required graduate courses, students must complete the equivalent of an undergraduate major in Physics, and must have specific competence in the subjects covered in PHYS 206, 425AB, 426AB, and 432AB.

New graduate students must consult with the departmental graduate adviser before registration for assistance in planning their programs. Students should achieve classified graduate standing as early as practicable in their graduate study because it is prerequisite to the completion for credit of any courses in the degree program.

Requirements for the Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses. Advancement to candidacy is prerequisite to filing the thesis or taking the comprehensive examination. Students should apply for candidacy immediately upon completing 16 units of their official program with the required grade point average.

Required Courses (25 units):

PHYS 510AB Mathematical Methods of Physics (4, 4)
PHYS 530AB Classical Physics (4, 4)
PHYS 532AB Quantum Mechanics (4, 4)
PHYS 542 Physics Research Conference (1)
(Repeat to total of 2 units)

Options

Students select Option A or Option B for completion of their program. Option A emphasizes research and requires a thesis. Option B emphasizes advanced study which may be taken in a variety of physics areas. Option B programs may include directed study; such programs culminate in a comprehensive examination rather than a thesis. For special professional objectives, students may substitute 9 units of graduate level work in another science or mathematics area in place of Option A or B, with approval of adviser.

The special major (described in the Graduate and Postbaccalaureate Study chapter) permits the combination of physics courses with courses in biology and chemistry in a program suited to interdisciplinary professional careers.

A. Research Option (20 units)

Required Courses (9 units):

Select from the following:

PHYS 597 Graduate Research (1-4)
PHYS 598 Graduate Directed Study (1-4)
PHYS 599 Thesis (1-4)

Electives (11 units):

Select with adviser approval.

B. Course Option (20 units)

Required Courses (9–12 units):

Select three from the following:

PHYS 411 Introduction to Astrophysics (3)
PHYS 428 Statistical Physics (3)
PHYS 431 Modern Optics (4)
PHYS 433-434 Solid State Physics I, II (4, 4)
PHYS 443AB Biophysics (3, 3)
PHYS 444 Nuclear Physics (4)
PHYS 471 Advanced Physics Laboratory II (3)
PHYS 491 Topics in Contemporary Experimental Physics (3)
PHYS 492 Topics in Contemporary Theoretical Physics (3)
PHYS 512AB Modern Physics (4, 4)
PHYS 533 Solid State Theory (4)
PHYS 542 Physics Research Conference (1)

Comprehensive Examination (0 units):

All candidates must pass an examination administered by the department. For students who elect Option A (Research), this is an oral examination based on the thesis. For students who elect Option B (Course), this is a comprehensive examination (PHYS 596) about graduate level physics.

Normally, it will be a three-hour written examination which may be supplemented by an oral examination at the discretion of the examining committee. The examination will be given at least twice a year as announced by the department.

Students should expect to take the comprehensive examination (PHYS 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.
Courses in Physics (PHYS)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser: PHYS 410A, 425AB, 426AB, 427, 432AB, 470, 497, 499

Graduate Courses

Classified graduate standing is required for admission.

510AB Mathematical Methods of Physics (4, 4)
Prerequisites: PHYS 410AB, 425AB, 426AB. Intended for beginning graduate students. Problem-solving using techniques current in theoretical physics. Series, integration, complex variables, integral transforms, matrices, eigenvalues, special functions, integral equations, numerical methods, probability, tensors.

512A B Modern Physics (4, 4)
Prerequisites: PHYS 425AB, 426AB.
512A: Hydrogen atom, atomic spectroscopy, electron shell structure, molecular binding, quantum statistics, theory of solids.
512B: X-rays, properties of nuclei, radioactivity, nuclear forces, elementary particles, cosmic rays, nuclear astrophysics.

530AB Classical Physics (4, 4)
Prerequisite or corequisite: PHYS 510AB. Unified treatment of advanced topics in classical physics, including Lagrange's and Hamilton-Jacobi theory, special relativity, electrodynamics, radiation theory.

531 Topics in Electrodynamics (4)
Prerequisite: PHYS 530AB. Continuation and expansion of topics covered in 530B. Emphasis on special topics and applications such as wave guides, scattering, diffraction, plasma physics, radiation damping, and self fields of a particle.

532AB Quantum Mechanics (4, 4)
Prerequisite or corequisite: PHYS 510AB.

532A: Formal structure of quantum mechanics, hermitian operators, Schrödinger theory and applications to soluble systems; angular momentum and rotation matrices.

532B: Scattering theory and phase-shift analysis, matrix mechanics, spin, permutation symmetry and identical particles, approximation methods.

533 Solid State Theory (4)
Prerequisites: PHYS 432AB, 510AB: 433 recommended. Use of quantum field theory and group theory for development of solid state topics such as band theory, transport processes, and collective particle phenomena.

542 Physics Research Conference (1)
Weekly meetings of faculty and students for report and discussion of recent developments in physics. Includes presentations by faculty, advanced students, or invited speakers. May be repeated to maximum of 2 units. Graded CR/NC.

544 Theoretical Nuclear Physics (4)
Prerequisites: PHYS 510AB, 532A. Selected topics from theory of nuclear models, nuclear reactions, and symmetry properties of elementary particles.

597 Graduate Research (1-4)
Prerequisites: Consent of a faculty sponsor and departmental approval of project prior to registration. Independent research, under guidance of the faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1-4)
Prerequisite: Consent of a faculty sponsor before registration. Independent study of advanced topics in the field; regular conferences with the sponsor. May be repeated for credit.

599 Thesis (1-4)
Prerequisites: Advancement to candidacy, consent of a faculty sponsor, departmental approval of topic prior to enrollment in course. Independent research resulting in a thesis. May be repeated to maximum of 9 units. Graded CR/NC.
School of Natural and Social Sciences

DEPARTMENT OFFICE
Engineering and Technology A523
Phone: (213) 343-2230

The Graduate Program
Two master's degree programs are offered in Political Science, in order to satisfy varying career objectives of graduate students. The Master of Arts degree emphasizes advanced studies for those interested in teaching, preparing for doctoral studies in political science, or preparing for political journalism, similar occupations, or various forms of citizen leadership. The Master of Science degree in Public Administration provides present and future public service employees the administrative skills and knowledge necessary for competent direction of personnel, administration of financial controls, and coordination of agency functions.

Admission to the Programs
Application must be made to both the Department of Political Science and the university. Forms for both may be obtained from the department office.

Completed departmental applications with one copy of transcripts from all colleges attended and two letters of recommendation (normally from Cal State L.A. faculty in the case of recent Cal State L.A. graduates) must be received by the Department of Political Science before August 1 for admission to fall quarter, December 1 for winter quarter, February 1 for spring quarter, and May 1 for summer quarter. University applications and two copies of official transcripts from all colleges attended must be sent to the Admissions Office in accordance with university admission deadlines.

Master of Arts Degree in Political Science
The program is built on the foundation of an undergraduate government or political science major and is designed to provide systematic study in government and related fields at an advanced level.

Departmental Requirements
In addition to university requirements for admission to graduate study, applicants must have a B (3.0) grade point average in the last 90 quarter units attempted. Applicants to have not completed an undergraduate major in government or political science or whose grade point average is below that required for regular admission may be admitted at the discretion of the department's graduate admissions committee.

Requirements for the Degree (45 units)
A total of 45 units is required, with at least 23 in 500-level courses.

Choice of Fields
Three fields for the program must include political theory. The remaining fields must include at least one of the following: American political studies, international relations and comparative political systems, or public administration. When appropriate, students may choose one related outside field of graduate study in another discipline. Programs must include at least four units of 500-level courses in each of the three fields selected.

Required Courses (8 units):
POLS 509 Foundations of Empirical Political Theory (4)
POLS 510 Seminar: Political Theory (4)

Electives (8 units):
With advisor approval, select courses from two of following fields:

AMERICAN POLITICAL STUDIES
POLS 505 Seminar: Contemporary American Political Studies (4)
POLS 510 Seminar: Political Theory (4)

INTERNATIONAL RELATIONS AND COMPARATIVE POLITICAL SYSTEMS
POLS 527 Seminar: Advanced Studies in Comparative Politics and International Relations (4)
POLS 531 Seminar: Latin American Government (4)

PUBLIC ADMINISTRATION
POLS 560 Seminar: Public Administration (4)
POLS 561 Seminar: Intergovernmental Relations and Administration (4)
POLS 564 Bureaucratic Systems (4)
POLS 591 Seminar: Administrative Theory and Behavior (4)

Additional Seminar (4 units):
Select one additional field from above or a 500-level course from history, economics, sociology, or geography.

Electives (26-30 units):
Select courses in political science or related fields at the 400- or 500-level with approval of adviser. Four units of POLS 599 may be included.

Comprehensive Examinations or Thesis (0-5 units):
POLS 596 Comprehensive Examination (0) or
POLS 599 Thesis (5)

Written and oral comprehensive examinations are required to demonstrate the student's competence in three selected fields, one of which may be in a related discipline, and in the overall field of political science. Students should expect to take the comprehensive examinations (POLS 596) the quarter they complete all course work on their program or subsequently and must comply with school and departmental requirements. Students will be allowed a maximum of two attempts to complete the comprehensive examinations successfully. Failure to pass the comprehensive examinations, or any portion thereof, will result in disqualification from the program.

A thesis, in lieu of written comprehensive examinations (but not in lieu of the oral portion), may be authorized for exceptional students who present a proposal that the department deems worthy of study. POLS 599 is required of all students authorized to submit a thesis.
Master of Science Degree in Public Administration

The degree program in Public Administration consists of core requirements and other graduate work selected to assist students in meeting their study objectives.

Departmental Requirements

In addition to university and departmental requirements for admission to graduate study, applicants with a 2.5–2.75 grade point average in the last 90 quarter units attempted in undergraduate status must complete a set of qualifying courses—16 quarter units on their program—with a minimum B (3.0) grade point average to qualify for classified graduate standing and continue in the program. Students who have not completed the corequisites listed below will include them among the qualifying courses.

Applicants with lower than a 2.5 grade point average in the last 90 quarter units attempted in undergraduate status will not be admitted to the M.S. program in Public Administration without clear and compelling evidence of their current capacity for satisfactory graduate academic performance.

Corequisites (16 units):

Completion of the following political science courses or equivalent is required. Students must earn a minimum B (3.0) average in corequisites and must repeat any course they complete with lower than a C grade.

- POLS 403: State and Local Government (4)
- POLS 405: Intergovernmental Relations in the U.S. (4)
- POLS 460: Foundations of Public Administration (4)
- POLS 479: Computers in the Public Sector (4)

* These may be taken as corequisites to the M.S. degree program and must be among the first five courses completed.

Requirements for the Degree (minimum 48 units)

A minimum of 48 units is required, with at least 24 in 500-level courses.

In addition to corequisite requirements, students must complete a one-year internship in public administration or an approved field project. This requirement may be waived if the candidate holds, or has held, a position entailing managerial or professional level of responsibility in a public or private nonprofit agency.

Required Courses (28 units):

- POLS 464: Public Sector Labor Relations (4) or
- POLS 476: Administrative Law (4) or
- ECON 433: Public Finance (4)
- POLS 466: Public Financial Administration (4)
- POLS 472: Organization and Management (4)
- POLS 480: Advanced Quantitative Methods in Political Science and Public Administration (4)
- POLS 530: Seminar: Public Policy Analysis (4)
- POLS 560: Seminar: Public Administration (4)
- POLS 590: Seminar: Philosophy of Public Service (4)

Areas of Concentration (minimum 20 units)

Select two areas of concentration below and complete courses within them as indicated.

Financial Management

- POLS 481: Managerial Computing in the Public Sector (4)
- POLS 566: Seminar: Public Budgeting and Financial Administration (4)

Human Resources Management

- POLS 463: Public Personnel Administration (4) or
- POLS 464: Public Sector Labor Relations (4)
- POLS 474: Organization Behavior and Development (4)
- POLS 563: Seminar: Advanced Problems in Public Personnel Administration (4) or
- POLS 564: Bureaucratic Systems (4)

Human Services and Community Development

- POLS 468: Administration of Human Resource Programs (4) or
- POLS 470: Public Relations in Government (4)
- POLS 568: Seminar: Community Development Administration (4)

Intergovernmental Relations

- POLS 461: Dynamics of Urban Administration (4)
- POLS 561: Seminar: Intergovernmental Relations Administration (4)

Public Management

- POLS 473: Systems Design in Government (4) or
- POLS 481: Managerial Computing in the Public Sector (4)
- POLS 591: Seminar: Administrative Theory and Behavior (4)

Public Policy Analysis and Evaluation

- POLS 439: Policy Evaluation (4) or
- POLS 481: Managerial Computing in the Public Sector (4)
- POLS 539: Seminar: Policy Evaluation (4)

Outside Area of Concentration

Select courses with adviser approval.

Students may substitute either of the following courses for a course in one of the fields above:

- POLS 595: Selected Issues in Public Administration (4) or
- POLS 598: Graduate Directed Study (4)

Comprehensive Examinations or Thesis (0.5 units):

- POLS 596: Comprehensive Examination (0) or
- POLS 599: Thesis (5)

Students should expect to take the comprehensive examinations (POLs 596) the quarter they complete all course work on their program or subsequently and must comply with school and departmental requirements. Students will be allowed a maximum of two attempts to complete the comprehensive examinations successfully. Failure to pass the comprehensive examinations, or any portion thereof, will result in disqualification from the program. The comprehensive examination is a two-day examination consisting of three parts: a core examination in the various aspects of public administration (taken by all candidates) and examinations in each of the two areas of concentration (individually selected by each candidate).

A thesis, in lieu of the written examinations, may be authorized for exceptional students who present a proposal the department deems worthy of study, but only if the students can indicate in an oral examination competence in the field of public administration. POLS 599 is required of all students planning to submit a thesis.
Courses in Political Science (POLS)

400-level Courses

All 400-level courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate adviser:

M.A.—Political Science: POLS 470, 473

M.S.—Public Administration: POLS 491, 492, 494, 496

Graduate Courses

Classified graduate standing is required for admission.

505 Seminar: American Political Studies (4)
Prerequisite: Baccalaureate, superior academic performance in political science. Analysis of selected issues and problems of national significance in the U.S. May be repeated as subject matter changes.

509 Seminar: Foundations of Empirical Political Theory (4)
Prerequisite: Departmental approval. Values and limitations in past and current applications of philosophy and methods of science to study of politics.

510 Seminar: Political Theory (4)
Prerequisite: POLS 410, 411, or 413. Selected topics in political philosophy. May be repeated as subject matter changes.

526 Seminar: International Political Economy (4)
(also listed as ECON 526)
Prerequisite: ECON/POLS 426 or ECON 406 plus POLS 427. Research and analysis of the interactions of politics and economics in the international arena.

527 Seminar: Advanced Studies in Comparative Politics and International Relations (4)
Prerequisite: Eight units in international relations (LAS 424, POLS 425-427) or in comparative politics (POLS 421 plus 4 units in 450-456). Special problems in international relations and comparative politics. May be repeated as subject matter changes.

530 Seminar: Policy Analysis (4)
Prerequisite: POLS 430. Concepts and techniques of policy analysis, including nature of public problems, initiation, estimation, implementation, analysis of impacts and evaluation.

531 Seminar: Latin American Government (4)
Prerequisite: POLS 451. Analysis of selected topics in Latin American politics.

539 Seminar: Policy Evaluation (4)

560 Seminar: Public Administration (4)
Prerequisite: POLS 460. Advanced studies in administrative organization: delegation, field coordination, communication, accountability, and controls; analysis of values process, structures, and arrangements in large scale governmental management; trends in administrative research.

561 Seminar: Intergovernmental Relations and Administration (4)
Prerequisite: POLS 405; 460 or 461. Dynamics and patterns of vertical and horizontal intergovernmental relations; challenges to the contemporary urban administrator in dealing with other governments at all levels.

563 Seminar: Advanced Problems in Public Personnel Administration (4)
Prerequisite: POLS 463. Case studies of personnel problems encountered in governmental agencies; examination of varying roles of boards, commissions, and official legislative bodies; new frontiers in personnel research and personnel legislation.

564 Bureaucratic Systems (4)
Prerequisites: POLS 474, classified standing in master's degree program in Department of Political Science. Analysis of bureaucratic systems at all levels of government, with emphasis on value context, environmental setting, operational dynamics, and power variables. May be repeated as subject matter changes.

566 Seminar: Public Budgeting and Financial Administration (4)
Prerequisite: POLS 466. Issues and problems in budget authorization, execution, and control, including public policy implications; special emphasis on program and performance budgeting.

568 Seminar: Community Development Administration (4)
Prerequisite: Instructor consent. Theory and process of planned development; role of administration in formulating and implementing development goals at all political community levels; planning, strategy, obstacles, assistance, development of competent personnel, institution-building.

590 Seminar: Philosophy of Public Service (4)
Prerequisites: POLS 450 or 561, instructor consent. Past and present philosophies of public service, bureaucracy in modern society, social-psychological and ethical aspects of public service, case studies of decision making.

591 Seminar: Administrative Theory and Behavior (4)
Prerequisite: POLS 472. Analysis of administrative theory and utilization of advances in behavioral research as they apply to studies of administrative process and organization.

595 Selected Issues in Public Administration (4)
Prerequisite: Twelve units in public administration, including one seminar. Presentation and discussion of selected issues and trends in administrative processes at all levels of government. Topics change. May be repeated to maximum of 8 units with adviser approval.

598 Graduate Directed Study (1–5)
Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated.

599 Thesis (1–5)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis. Graded CR/NC.
PSYCHOLOGY

School of Natural and Social Sciences

DEPARTMENT OFFICE
King Hall C3104
Phone: (213) 343-2250

The Graduate Program

The Department of Psychology offers both Master of Arts and Master of Science degrees. Although both provide strong preparation for doctoral work, the M.A., with its research orientation, is more specifically predoctoral. The M.S. prepares students for such professions as marriage, family, and child counseling; applied behavior analysis; and community, industrial, and organization psychology.

Admission to the Program

Applicants must have completed an undergraduate major in psychology and must apply to the Department of Psychology. Application forms are available in the department graduate studies office. Completed applications and transcripts from all colleges and universities attended (except Cal State L.A.) must be received by the department before action on admission can be ensured.

Students who have not received a baccalaureate in psychology or whose grade point average in the last 90 quarter units falls below the minimum 2.5 required for admission to the university may, under certain conditions, be admitted by special action. Evaluation of undergraduate preparation is made by the principal graduate adviser.

Classified Standing

Students are encouraged to apply for classified standing during their first quarter in attendance as a graduate student. This is done by completing an official program sheet that must be approved by the principal graduate adviser, department chair, and school dean. No more than 13 units completed prior to attainment of classified standing may be included on the official master's degree program.

Departmental Requirements

Students who have a bachelor's degree in Psychology from Cal State L.A., or equivalent, and who have attained a 3.4 grade point average in their undergraduate major, or a B (3.0) grade point average with a score of 550 or higher on the GRE subject examination in Psychology, may elect two additional graduate seminars with adviser approval.

Within their first 16 units, students are required to successfully complete one of the following:

*PSY 411, 414, or 429

*Applied Behavior Analysis option students may substitute PSY 417

Students who have a bachelor's degree in Psychology from Cal State L.A., or equivalent, and whose grade point average and/or test score is below the minimum required must complete PSY 555 and one of PSY 411, 414, and 429 (for Applied Behavior Analysis option, may substitute PSY 417), each with a B grade or higher, within their first 16 units.

Students who enter the program without an undergraduate degree in Psychology are required to complete 37 units of upper division course work in psychology. Upon completion, students may proceed with their graduate course work as outlined above.

Enrollment in additional 500-level courses is restricted to students who have completed the above required courses each with a grade of B or higher.

Advancement to Candidacy

Upon completion of 16 units of the approved master's degree program with a B (3.0) grade point average or higher, students must apply for advancement to candidacy. Enrollment in PSY 585, 590, 595, 597, 598, 599, and the comprehensive examinations (596) is limited to students who have been advanced to candidacy.

Requirements for the Degrees

The two degrees share a common core of psychology seminars, as follows:

Required Courses (10-12 units):

One of the following:

*PSY 411, 414, 429

*Applied Behavior Analysis option students may substitute PSY 417

In addition, select two 500-level courses with adviser approval.

Master of Arts Degree (45 units)

A total of 45 units is required, with at least 23 in 500-level courses.

Electives in Psychology/Related Fields (29-35 units):

Select 2-5 units of PSY 597 and 598, determined in consultation with departmental adviser, and an additional 24-33 units of courses approved by adviser to complete 45 units required for the degree.

Of the required 23 units of 500-level courses in psychology, no more than 13 units may be elected in combinations of PSY 590, 595, 597, 598, and 599.

Comprehensive Examination or Thesis (0, 4 units):

PSY 596 Comprehensive Examination (0) or PSY 599 Thesis (4)

Students should expect to take the comprehensive examination (PSY 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

Master of Science Degree (54-86 units)

A total of 54-86 units is required, depending on the option selected.

The General option requires 54 units, the Applied Behavior Analysis option requires 57 units, and the Marriage, Family, and Child Counseling option requires 73-86 units.

- General Option (minimum 54 units)

Required Field Study (8 or 12 units)

PSY 585 Directed Clinical Practice (4, 4, 4) or PSY 595 Field Experience in Psychology (4, 4)

This requirement may be waived for students with adequate prior experience in an appropriate field as determined by the department. Any combination of field and teaching experience that meets School of Education requirements for the credential program with specialization in school psychology also satisfies this requirement.
Electives in Psychology and Related Fields (26-36 units)
Select 2-5 units of PSY 597 and 598, in consultation with a departmental adviser, and an additional 21-34 units of adviser-approved courses to comprise the total number of units required for the degree.

Of the required 27 units of 500-level courses in psychology, no more than 13 units may elected in combinations of PSY 590, 595, 597, 598, and 599.

Comprehensive Examination or Thesis (0, 4 units)
Students should expect to take the comprehensive examination (PSY 596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

• Applied Behavior Analysis Option (57 units)
The major with this option trains students in the concepts and techniques of behavior analysis as applied to areas of counseling, behavioral medicine, and education. It also provides training in traditional areas of psychology and prepares students for employment at the master's degree level and for doctorate level training.

Required courses (57 units):

METHODOLOGY (4 units):
PSY 417 Single Case Research Design (4)

CONCEPTUAL ANALYSIS (4 units):
PSY 428 Introduction to Analysis of Behavior (4)

EXPERIMENTAL ANALYSIS OF BEHAVIOR (8 units):
PSY 421 Psychology of Learning: Basic Processes (4)
PSY 500 Seminar: Basic Learning Processes (4)

APPLIED BEHAVIOR ANALYSIS (23 units):
COUN 406 Behavioral Counseling and Self-Management (4)
COUN 501 Behavior Analysis in School, Home, and Agency Settings (4)
COUN 502 Advanced Behavioral Contingency Management in Schools (4)
COUN 504 Advanced Topical Study in Application of Behavior Analysis in Education (4)
COUN 593 Practicum: Staff Development and Consultation (3)
PSY 528 Seminar: Behavior Modification (4)

ELECTIVE (4 units):
Select one from following:
PSY 501 Seminar: Sensation and Perception (4)
PSY 502 Seminar: Motivation and Emotion (4)
PSY 503 Seminar: Complex Learning Processes (4)
PSY 506 Seminar: Physiological Psychology (4)
PSY 508 Seminar: Comparative Psychology (4)
PSY 510 Seminar: Abnormal Psychology (4)
PSY 511 Seminar: Experimental Child Psychology (4 each)
PSY 512 Behavior Disorders in Children (4)

• FIELD WORK (6 units):
PSY 595 Field Experience in Psychology (6) or
COUN 586S Supervised Field Experience in Pupil Personnel Services: School Counseling (6)
COUN 598 Supervised Practice in Rehabilitation Counseling (6)

* interview required before admission to field work courses

GRADUATE RESEARCH AND THESIS (8 units):
PSY 597 Graduate Research (2)
PSY 599 Thesis (6)

• Marriage, Family, and Child Counseling Option (73-86 units)
The major with this option is designed to fulfill recently-enacted state regulations for licensure in Marriage, Family, and Child Counseling as outlined in the Business and Professions Code Section 4980.37. The program further prepares students with the skills necessary for employment in mental health and related fields that utilize psychological and counseling services.

Required Courses (73-86 units):

HUMAN BIOLOGICAL, PSYCHOLOGICAL, AND SOCIAL DEVELOPMENT (4 or 8 units):
PSY 412AB Psychology of Human Development: Childhood and Adolescence (4, 4) or
PSY 462 Psychology of Human Development: Maturity and Aging (4) or
COUN 405AB Theoretical and Developmental Aspects of Behavior (4, 4)

HUMAN SEXUALITY (4 units):
PSY 542 Human Sexuality: Dysfunction and Treatment (4) or
COUN 552 Counseling and Human Sexuality (4)

PSYCHOPATHOLOGY (8 units):
PSY 510 Seminar: Abnormal Psychology (4) plus
PSY 410A or 410B Abnormal Psychology (4)

CROSSCULTURAL MORES AND VALUES (4 units):
SOC 460 Race and Ethnic Relations (4)

THEORIES OF MARRIAGE, FAMILY, AND CHILD COUNSELING (19-20 units):
PSY 426 Family Therapy Dynamics and Perspectives (4)
PSY 436AB Counseling and Psychotherapy: Theories, Methods, and Issues (4, 4)
EDSP 412 Issues in Child Abuse, Neglect, and Family Violence (4) plus
PSY 512 Behavior Disorders in Children (4) or
COUN 450 Counseling Theories (3)

PROFESSIONAL ETHICS AND LAW (4 units):
PSY 464 Psychology and the Law (4)

HUMAN COMMUNICATION (4 units):
PSY 427 Family Therapy Techniques: Strategies for Change (4)

APPLIED PSYCHOTHERAPEUTIC TECHNIQUES OF MARRIAGE, FAMILY, AND CHILD COUNSELING (12 units):
PSY 585 Directed Clinical Practice (4, 4, 4)

RESEARCH METHODOLOGY (4 units):
PSY 411 Research Methodology in Psychology (4) or
COUN 426A Principles of Measurement and Research in Counseling (4) or
CHDV 504 Research Methods with Children and Families (4)

SURVEY IN PSYCHOLOGICAL TESTING (4-12 units):
PSY 431 Survey of Psychological Tests (4) or
COUN 428B Principles of Measurement and Research in Counseling (4) or
PSY 531AB** Individual Testing and Case Study Techniques (4, 4) plus
COUN/PSY 594 Methods of Personality Assessment (4)

**must be taken as a sequence and appear on graduate program

* Field Work (6 units):
PSY 595 Field Experience in Psychology (6) or
COUN 586S Supervised Field Experience in Pupil Personnel Services: School Counseling (6)
COUN 598 Supervised Practice in Rehabilitation Counseling (6)

* interview required before admission to field work courses

GRADUATE RESEARCH AND THESIS (8 units):
PSY 597 Graduate Research (2)
PSY 599 Thesis (6)
ALCOHOL AND CHEMICAL SUBSTANCE (4 units):
HS 456 Health Studies on Alcohol, Narcotics, Nutrition, and Tobacco (4)

COMPREHENSIVE EXAMINATION (2 units):
PSY 596 Comprehensive Examination (0) plus
PSY 598 Graduate Directed Study (2)

The Psychology Clinic
The Department of Psychology provides a training facility for Psychology majors and students in the School Psychology credential program. The facility is part of the Associated Clinics in the School of Health and Human Services. Students selected are admitted to this program upon approval for enrollment in applicable psychology courses. Qualified students may counsel children, families, and/or groups.

Courses in Psychology (PSY)

400-level Courses

All 400-level courses may be applied toward master's degree requirements, subject to limits established by the department and approval of the graduate adviser.

Graduate Courses

Classified graduate standing is required for admission.

500 Seminar: Basic Learning Processes (4)
Prerequisite: PSY 421. Critical examination of experimental literature within selected topic areas of learning. Discussion of the major theories of learning.

501 Seminar: Sensation and Perception (4)
Prerequisite: PSY 425. Critical review of current literature, theories, methods, and problems concerning sensation and perception.

502 Seminar: Motivation and Emotion (4)
Prerequisite: PSY 423. Critical review of current literature and methods in the study of motivation and emotion.

503 Seminar: Complex Learning Processes (4)
Prerequisites: PSY 424, 500. Critical examination of experimental data and theory in learning, memory, and cognition.

504 Advanced Experimental Methods (4)
Prerequisite: Instructor consent. Nonstatistical issues in design of experimental psychological research. Topics include design logic, literature sources, apparatus, subjects. Emphasis on preparation of an experimental design in an area of student's interest.

506 Seminar: Physiological Psychology (4)
Prerequisite: PSY 401. Critical discussions, including physiological correlates and mechanisms of motivation and emotion, learning and memory, human psychopathology.

508 Seminar: Comparative Psychology (4)
Prerequisites: PSY 401, 408. Examination in depth of contemporary research dealing with behavior of organisms at different phyletic levels. May be repeated once for credit as subject matter changes.

510 Seminar: Abnormal Psychology (4)
Prerequisite: PSY 410AB. Intensive analysis of major types of abnormal behavior, their development and prevention. Emphasis on relationship of abnormal behavior to theories of personality and research findings.

511 Seminar: Experimental Child Psychology (4 each)
Prerequisites: PSY 304AB, 412AB or comparable undergraduate work in research methods and human development, and instructor consent. Issues in developmental psychology. Topics announced in Schedule of Classes, selected from following. May be repeated to maximum of 8 units with different suffixes.

511R Research Methods in Child Psychology
511T Theories of Developmental Psychology

512 Behavior Disorders in Children (4)
Prerequisites: PSY 410AB, 412AB. Application of principles of psychology to behavior disorders in children. Designed primarily for clinicians, social workers, school psychologists, and parent educators.

515 Advanced Statistical Methods in Psychology (4)
Prerequisite: PSY 414. Topics include fixed, mixed, and random models of analysis of variance, interaction, analysis of covariance, and miscellaneous nonparametric statistics.

522 Seminar: Social Psychology (4)
Prerequisite: PSY 422. Theory, methodology, and applied problems dealing with the phenomena of social behavior. Individual projects required.

528 Seminar: Behavior Modification (4)
Prerequisite: PSY 411 or 428, PSY 417 recommended. Basic theory and procedures in behavior modification including desensitization, token economies, biofeedback, and self control. Discussion of procedures for assessing the effectiveness of intervention.

531AB Individual Testing and Case Study (also listed as COUN 531AB)
531T Theories of Developmental Psychology
531R Research Methods in Child Psychology

536 Seminar: Counseling (4)
(issued and special sections)
Prerequisites: PSY 410AB, 418AB, or 436AB and instructor consent. Intensive discussion of typical counseling situations coordinated with readings in area, evaluation of selected counseling theories. Offered in general and special sections, e.g., child, family, group. May be repeated in different sections, with maximum of 6 units applied to master's degree.

537 Introduction to Rorschach Technique (4)
Prerequisites: Minimum of 12 units of 500-level PSY courses, including 534, instructor consent. Appraisal of personality by means of the Rorschach technique; administration, scoring, and basic interpretation. Lecture 3 hours, laboratory 3 hours.

541 Seminar: Group Processes (4)
Psychological nature of social groups with emphasis on processes in small groups. Research design and experimental methods of studies in social interaction of small groups; analysis of research findings.
542 Human Sexuality: Dysfunction and Treatment (4)
Prerequisite: Eight units of course work in theory and techniques of counseling. Theoretical perspectives on treatment of sexual dysfunction; diagnosis, treatment, research findings, ethical considerations.

546 Seminar: Human Resource Development (3)
Prerequisite: PSY 446. Analysis of results of recent behavioral research applied to employment; psychological aspects of work in an industrial setting stressed.

547 Seminar: Psychological Factors in Man-Machine Systems (4)
Individual research projects in application of behavioral properties of man to man-machine systems. Ways of structuring machines to enhance system performance; research methods in human factors engineering; current problem areas.

552 Seminar: Psychological Foundations of Organizational Behavior (3)
Investigation and analysis of psychological foundations of organizational behavior. Particular attention given to relationship of psychological principles to organizational structure and functions in industry.

555 Introduction to Graduate Study in Psychology (6)
Prerequisites: PSY 304AB, 308. Critical evaluation of core areas in psychology including: learning, perception, personality, physiological, social, and developmental psychology. Extensive use of bibliographic resources and oral and written presentations.

588 Critical Problems in Psychology (4)
Prerequisite: Instructor consent. Critical problems in psychology as a science or as a profession. Topic varies each quarter. May be repeated for credit.

590 Practicum in Counseling (1–9)
Prerequisites: PSY 438; 536 (may be taken concurrently); advancement to candidacy; and approval by departmental committee in quarter prior to enrollment. Independent supervised field experience in counseling. Graded CR/NC.

595 Field Experience in Psychology (1–9)
Prerequisites: Advancement to candidacy; instructor consent; application to department in quarter prior to enrollment. Independent supervised field experience in an applied area of psychology. May be repeated to maximum of 12 units. Graded CR/NC.

597 Graduate Research (1–6)
Prerequisites: Advancement to candidacy; instructor consent to act as sponsor; departmental approval of project prior to registration. Independent research under guidance of the faculty. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1–4)
Prerequisites: Advancement to candidacy; instructor consent to act as sponsor. Independent study of advanced topics in the field; regular conferences with sponsor. May be repeated for credit. Graded CR/NC.

599 Thesis (1–9)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, departmental approval of topic prior to registration. Independent research resulting in a thesis. May be repeated to maximum of 9 units. Graded CR/NC.
School of Natural and Social Sciences

DEPARTMENT OFFICE
King Hall C3093
Phone: (213) 343-2220
FAX: (213) 343-5155

The Master of Arts degree in Sociology provides advanced study in sociological theory and methods of research with a variety of subject matter emphases that students plan with a graduate adviser. The program prepares students for doctoral studies, teaching at the secondary or community college level, or working in a professional capacity in governmental or private agencies or organizations. Two options are offered. Option A requires a thesis, and Option B requires a comprehensive examination.

**Master of Arts Degree**

**Admission to the Program**

Prerequisite to admission are 36 undergraduate units in sociology. These must include SOC 201, 210AB, 390, 412, 414, and other courses as necessary. Satisfactory equivalents will be determined by a graduate adviser in Sociology.

**Requirements for the Degree (45 units)**

A total of 45 units is required, with at least 23 in 400-level courses.

**Required Courses (12–20 units):**

- SOC 410 Advanced Statistics (4)
- SOC 490 Advanced Research Methods (4)
- SOC 512 Seminar: History of Sociological Theory (4)
- SOC 514 Seminar: Contemporary Sociological Theory (4)
- SOC 590 Seminar: Sociological Research (4)

**Electives (19–33 units):**

These must include 8 units of 500-level SOC seminars for students who elect Option A and 11 units for Students who elect Option B.

**Comprehensive Examination or Thesis (0.6 units):**

Students elect Option A or Option B.

**Option A: Thesis**

SOC 599 Thesis (5)

Oral defense of the thesis is required.

**Option B: Comprehensive Examination**

SOC 596 Comprehensive Examination (0)

The comprehensive examination (SOC 596) is a written examination in three fields of concentration: theory, methods, and one other field selected by the candidate and approved by the adviser. Students should expect to take the comprehensive examination the quarter they complete all course work on their program and must comply with school and department requirements. Students are allowed a maximum of two attempts to complete the comprehensive examination successfully.

**Courses in Sociology (SOC)**

**400-level Courses**

All 400-level courses may be applied toward master's degree requirements subject to limits established by the department and approval of the graduate adviser.

**Graduate Courses**

*Classified graduate standing is required for admission.*

- **512 Seminar: History of Sociological Theory (4)**
  
  Historical dimensions, European and American, of development of systematic sociological theory and method; continuity and critique of major contributions to theories of society and the social processes.

- **514 Seminar: Contemporary Sociological Theory (4)**
  
  Exploration and critique of problems, methods, and theories characteristic of contemporary sociological inquiry; their relationship and contribution to advancement of sociological theory and application to selected social problems.

- **521 Seminar: Sociology of Knowledge (4)**
  
  Relationships of scientific, artistic, legal, and intellectual activities to social structure, institutions, and historical change.

- **522 Seminar: Social Psychology (4)**
  
  Analysis and critique of current approaches and investigations of the social processes that bind individuals and groups.

- **526 Seminar: Sociology of Deviant Behavior (4)**
  
  Prerequisites: SOC 426, instructor consent. Analysis of major theoretical approaches and empirical studies in deviance; selected topics and current issues in study of social deviance.

- **530 Seminar: Urban Social Systems (4)**
  
  An advanced consideration of selected macro social structures and their process and functions: prime societies, institutional subsystems, complex organizations, ethnic subsocieties, professions; emphasis varies.

- **534 Seminar: Population (4)**
  
  Prerequisite: SOC 434. Problems of population growth; social and psychological factors in population dynamics; population planning and policy.

- **540 Seminar: Marriage and the Family (4)**
  
  Advanced study of sociopsychodynamics of marriage and the family; emphasis on recent research on family change, parental relationships, and family instability; successful family life.

- **544 Seminar: Social Organization and Institutions (4)**
  
  Advanced consideration of selected macro social structures and their processes and functions: total societies, institutional subsystems, complex organizations, ethnic subsocieties, professions; emphasis varies.

- **560 Seminar: Racial and Ethnic Minorities (4)**
  
  Prerequisite: SOC 460 recommended. Examination in depth of critical problems and trends affecting American minority groups; emphasis on analysis of change in strategies, tactics, ideologies, theories, and consequences of minority group relations.
580 Seminar: Criminology (4)
Prerequisite: SOC 480. Advanced study of criminal behavior, social deviance, and social structure; comparative studies of contemporary criminality, criminal justice, and criminal codes; legal, medical, and psychiatric interpretation of criminal behavior.

584 Seminar: Corrections (4)
Advanced study of sociological aspects of treatment of offender from arrest to release process; discussion of cross-cultural practices and current theories.

590 Seminar: Sociological Research (4)
Prerequisite: SOC 490; recommended corequisite: SOC 597. Advanced study in behavioral research methodology; survey design; experimental design, analysis; problems of interpretation, scaling techniques, models, simulation, computer data analysis, supervised application of methods.

591 Seminar: Computer Applications of Multivariate Techniques in Sociology (4)
Prerequisite: SOC 410. Multivariate statistical techniques in sociology and their computer applications; multivariate table analysis, multiple regression, path analysis, analysis of variance, discriminant analysis, factor analysis, and other selected topics of multivariate analysis.

595 Critical Issues and Problems in Sociology (4)
Prerequisite: Instructor consent. Critical areas of social inquiry and special problems of sociology as a social science and as a profession. Content varies; see Schedule of Classes for specific topic. May be repeated once for credit.

597 Graduate Research (1–3)
Prerequisite: Consent of faculty sponsor. Proposed study must be approved prior to registration. Directed empirical research on a problem in sociology from conception through design; data gathering, analysis, and final written report. May be repeated for credit. Graded CR/NC.

598 Graduate Directed Study (1–4)
Prerequisite: Consent of faculty sponsor. Proposed study must be approved prior to registration. Directed reading and critical analysis of a problem in sociology; written reports and conferences. May be repeated for credit.

599 Thesis (1–3)
Prerequisites: Advancement to candidacy, instructor consent to act as sponsor, department approval of topic prior to registration. Independent research resulting in a thesis. Must be repeated to maximum of 6 units. Graded CR/NC.
FACULTY

FULL-TIME FACULTY, 1990-1991

Listings corrected to June 24, 1991. Year in parentheses indicates year of appointment as a full-time faculty member.

Jerry Reed Ball (1969) .................. Professor of Physical Education
B.A., 1952, Ball State University; M.S., 1953, University of Illinois; Ph.D., 1961, University of Iowa

Frank R. Balle (1962) .................. Professor of Civil Engineering
B.S.C.E., 1957, M.S.C.E., 1958, University of Michigan; Registered Professional Civil Engineer, 1965, California

Roy I. Barnett, Jr. (1969) .............. Professor of Electrical Engineering
B.S., 1951, Lehigh University; M.S., 1953, Ph.D., 1963, Ohio State University

Butrus G. Basmajji (1969) .......... Professor of Mathematics
B.S., 1963, M.S., 1964, American University of Beirut, Lebanon; Ph.D., 1968, University of Maryland

Sharon Bassett (1967) ............... Professor of English

Stephen J. Baumgartner (1986) .... Assistant Professor of Information Systems
B.S., 1964, St. Lawrence University; M.B.A., 1968, State University of New York at Buffalo; M.S., 1971, London School of Economics (U.K.)

Pollyanne Baxter (1989) .......... Assistant Professor of Music

Abdallah J. Beddawi (1963) .......... Professor of French
B.A., 1954, Syrian University; Syria; M.A., 1957, University of California, Berkeley; D.O.C., 1968, University of Paris, France

Gerald Beer (1971) .................. Professor of Mathematics and Director, General Education Honors Program

William L. Belain (1982) .......... Associate Professor of Music
B.M., 1972, University of California, Los Angeles; M.M., 1975, D.M.A., 1984, University of Tulsa

James R. Bell (1990) .............. Assistant Professor of Anthropology
B.A., 1974, M.A., 1977, California State College, Los Angeles; Ph.D., 1987, University of California, Santa Barbara

Beryl L. Bellman (1999) ............. Associate Professor of Speech Communication
B.A., 1964, M.A., 1966, University of California, Los Angeles; Ph.D., 1971, University of California, Irvine

Alfred Bendixen (1968) .............. Associate Professor of English
B.A., 1973, M.A., 1974, State University of New York at Binghamton; Ph.D., 1979, University of North Carolina

Jeffrey W. Benedict (1989) ......... Assistant Professor of Music
B.Mus, 1980, M.A., 1982, University of Denver

Bernard B. Berk (1973) ............. Associate Professor of Sociology
B.A., 1956, University of California, Los Angeles; M.A., 1957, Ph.D., 1961, University of Michigan

Norman D. Berke (1966) .......... Professor of Education
B.A., 1949, University of Buffalo; M.A., 1951, Columbia University; Ed.D., 1966, State University of New York at Buffalo

Gary A. Best (1966) .................. Professor of Education
B.A., 1961, Los Angeles State College; M.A., 1965, California State College, Los Angeles; Ph.D., 1968, University of Minnesota

Shirley Jean Better (1969) ........... Professor of Social Work
B.A., 1956, University of Illinois; M.S.W., 1958, University of Michigan; D.S.W., 1987, University of California, Los Angeles

Anjan K. Bhamik (1966) ............ Professor of Civil Engineering
B.E., 1961, Calcutta University, India; M.S., 1963, Ph.D., 1966, University of Minnesota

Jens D. Biermeier (1985) ............ Professor of Marketing
B.S., 1974, Fachhochschule of Cologne, Germany; M.B.A., 1977, Ph.D., 1982, University of Essen, Germany

Beverly R. Bigler (1973) ............ Professor of Nursing
B.S., 1965, California State College, Los Angeles; M.S., 1973, University of California, San Francisco; Ed.D., 1988, Nova University; R.N., 1960, California; National Pediatric Nurse Practitioner Certification, 1979

Ann M. Bingham-Newman (1974) .. Professor of Family Studies and Consumer Sciences

Loretta Birchfield (1987) .......... Associate Professor of Nursing
B.S., 1968, University of Richmond; B.S., 1971, M.S., 1973, Medical College of Virginia; Ed.D., 1978, Boston University; R.N., P.H.N., 1976, California

Sharon Bishop (1967) ............... Professor of Philosophy

Wayne W. Bishop (1971) ............. Professor of Mathematics
B.A., 1964, University of Northern Iowa; M.A., 1967, Northwestern University; Ph.D., 1971, Western Michigan University

Evan E. (Betty) Black (1983) ....... Librarian, Public Services
B.A., 1952, M.L.S., 1969, University of Texas, Austin

John M. Blackburn (1981) ........... Associate Professor of Business Law and Real Estate
B.A., 1953, East Texas State Teachers College; J.D., 1976, Southeastern University of School of Law; Admitted to the Bar, 1977, California

Carlton Blanton (1970) .......... Associate Professor of Health Science

Alan J. Bloom (1981) ............... Associate Professor of Broadcasting
B.A., 1973, Sonoma State College; M.F.A., 1975, California College of Arts and Crafts

Keith R. Blunt (1967) ............... Professor of Management
B.A., 1953, M.A., 1954, Ph.D., 1966, University of Iowa

James A. Bolton (1969) ............... Professor of Education
B.A., 1964, Langston University; M.A., 1970, Atlanta University; Ph.D., 1972, Claremont Graduate School

Hugh S. Bonar, Jr. (1954) .......... Professor of History

Charles E. Borman (1960) ............ Professor of Art
B.A., 1953, M.A. 1959, Los Angeles State College

Maria Boss (1988) .................. Associate Professor of Finance and Law
B.A., 1965, University of California, Davis; J.D., 1974, University of California Hastings College of Law; Admitted to the Bar, 1974, California

James D. Boulgardies (1977) ....... Professor of Marketing
B.S., 1951, Columbia University; B.S., 1953, Cooper Union; M.E.A., 1966, University of Utah; D.B.A., 1973, University of Southern California

George B. Bouse (1959) ............ Professor of Electrical Engineering
B.S., 1954, M.S., 1963, University of California, Los Angeles; Registered Professional Engineer, 1958, California

Heilen R. Bousalis (1985) .......... Professor of Electrical Engineering
B.S., 1974, New York Institute of Technology; M.S., 1976, Ph.D., 1980, New Mexico State University

Roger R. Bowers (1972) .......... Professor of Biology
B.S., 1966, Creighton University; M.S., 1968, Ph.D., 1971, University of Nebraska

Barbara Ann Boyer (1989) .......... Associate Professor of Art
B.S., 1958, State University of New York, College at Buffalo; M.A., 1968, California State College at San Jose; Ph.D., 1980, University of Oregon
Joseph Bragin (1970) .......................... Associate Dean, School of Natural and Social Sciences and Professor of Chemistry
B.S., 1959, Brooklyn College; Ph.D., 1967, University of Wisconsin–Madison

Gerhard Brand (1960) .......................... Professor of English
A.B., 1949, Trinity College; M.A., 1953, University of California, Los Angeles

Roger D. Brandt (1962) .......................... Professor of Electrical Engineering
B.S.E.E., 1956, M.S.E.E., 1959, University of North Dakota; Registered Professional Electrical Engineer, 1964, California

Donald W. Bray (1961) .......................... Professor of Political Science
B.A., 1950, Pomona College; M.A., 1957, University of California, Berkeley; Ph.D., 1961, Stanford University

Peter A. Brier (1971) .......................... Professor of English
B.A., 1956, Yale University; M.A., 1958, Harvard University; Ph.D., 1971, Occidental College/Claremont Graduate School

Charles Edward Brinkley (1961) ................. Librarian, Special Collections
A.B., 1950, Wake Forest College; M.S. 1957, Columbia University

William J. Britton (1979) .......................... Counselor, Educational Opportunity Program
B.A., 1967, California State College, Los Angeles; M.A., 1974, California State University, Los Angeles

Martin G. Brodwin (1988) .......................... Assistant Professor of Education
B.A., 1966, University of California, Los Angeles; M.S., 1969, California State College, Los Angeles; Ph.D., 1973, Michigan State University

Grover Lee Brooks (1981) .......................... Associate Librarian, Public Services
B.S., 1965, Kent State University; M.Ed., 1972, Wright State University; M.S.L.S., 1978, University of Illinois

Costello L. Brown (1969) .......................... Associate Dean of Graduate Studies and Professor of Chemistry

Harold C. Brown (1969) .......................... Professor of Education
B.A., 1958, M.A., 1961, Los Angeles State College; Ph.D., 1972, Claremont Graduate School

Elizabeth R. Bryant (1990) .......................... Assistant Professor of Art

Marilyn Buccellati (1973) .......................... Professor of Art
B.A., 1961, College of St. Elizabeth; M.A., 1967, Ph.D., 1974, University of Chicago

David A. Buck (1976) .......................... Professor of Music

Frances S. Buckless (1965) .......................... Head Coach, Women's Basketball
B.S., 1971, Towson State College; M.Ed., 1974, Trenton State College

Millie Burnett (1976) .......................... Professor of Music
B.M., 1954, Baylor University; M.A., 1973, California State University, Northridge; Ed.D., 1983, United States International University

Richard Dean Burns (1960) .......................... Professor of History
B.S., 1957, M.A., 1958, Ph.D., 1960, University of Illinois

Donald Burrill (1962) .......................... Professor of Philosophy
B.A., 1951, Pasadena College; M.A., 1954, Ph.D., 1961, University of Southern California

George Burstein (1979) .......................... Professor of Management
B.S., 1942, City College of New York; M.P.A., 1948, New York University; M.S., 1949, City University of New York; D.P.A., 1977, State University of New York at Albany

Stanley M. Burstein (1968) .......................... Professor of History

John Butler (1988) .......................... Assistant Professor of Art

William G. Byron (1954) .......................... Professor of Geography
A.B., 1948, M.A., 1951, University of California, Los Angeles; Ph.D., 1954, Syracuse University

Hermes G. Cadenas (1990) .......................... Associate Professor of Education

H. David Caftan (1964) .......................... Professor of Music
B.M., 1972, M.M., 1974, University of Texas

Evelyn Ruiz Calvillo (1990) .......................... Associate Professor of Sociology
B.S., 1983, University of Texas at Galveston; M.S., 1986, Loma Linda University; R.N., Texas, 1964, California, 1984

Bruce L. Campbell (1977) .......................... Associate Professor of Family Studies and Consumer Sciences

Giorgio Canarella (1973) .......................... Professor of Economics and Statistics
Laurea in Economia, 1966, University of Milan, Italy; Ph.D., 1973, University of Virginia

Roberto Cantú (1976) .......................... Professor of Chicano Studies

Brian Capon (1961) .......................... Professor of Biology
B.A., 1958, La Sierra College; M.S., 1960, Ph.D., 1961, University of Chicago

Sandra E. Card (1989) .......................... Associate Librarian

Desdemona Cardoza (1988) .......................... Assistant Vice President for Information Resources Management and Assistant Professor of Psychology
B.A., 1975, University of California, Berkeley; M.A., 1979, Ph.D., 1982, University of California, Riverside

Roland L. Carpenter (1966) .......................... Professor of Physics

Robert H. Carr (1964) .......................... Professor of Physics
B.A., 1957, Cornell University; Ph.D., 1963, Iowa State University

Samantha Carrington (1986) .......................... Assistant Professor of Economics and Statistics
B.A., 1974, National University of Iran; M.A., 1981, Ph.D., 1985, University of California, Santa Barbara

David B. Carroll (1969) .......................... Professor of English
B.A., 1964, University of British Columbia; M.A., 1967, University of California, Riverside; Ph.D., 1971, Rice University; J.D., 1980, Loyola University of Los Angeles; Member of the State Bar of California

E. Dale Carter, Jr. (1966) .......................... Professor of Spanish

Michael J. Carter (1990) .......................... Assistant Professor of Education
B.A., 1979, University of California, Los Angeles; M.A., 1982, California State University, Northridge, M.F.C.C., 1984, California

Joseph Casanova, Jr. (1961) .......................... Professor of Chemistry
S.B., 1953, Massachusetts Institute of Technology; M.S., 1956, Ph.D., 1957, Carnegie Institute of Technology

Barbara S. Case (1975) .......................... Assistant University Librarian, Technical and Automation Services
B.A., 1969, M.L.S., 1975, University of California, Berkeley

Marshall Louis Cates (1971) .......................... Professor of Mathematics

Martha S. Cattell (1977) .......................... Associate Professor of Business Law
B.S., 1940, Ohio State University; L.I.B., 1946, J.D., 1969, Columbia University

Paul L. Chabot (1970) .......................... Professor of Mathematics
B.S., 1965, Boston College; Ph.D., 1969, University of Notre Dame
Richard W. Chamberlain (1960) ............................................ Assistant Professor of Mathematics
B.A. 1952, Westmont College; M.A., 1960, University of California, Santa Barbara

Berken Chang (1969) ...................................................... Professor of Physics
B.S., 1968, California Institute of Technology; Ph.D., 1967, University of California, Berkeley

Derek K. Chang (1983) ................................................. Professor of Mathematics
M.S., 1978; Ph.D., 1983, University of California, Riverside

Jack S. K. Chang (1969) ................................................. Associate Professor of Finance
B. S., 1972, National Taiwan University, Taiwan; M. Eng., 1975, University of Toronto; M.B.A. 1979, Ph.D., 1983, University of Houston

David L. Chapman (1970) ............................................. Professor of Criminal Justice
B.A., 1963, San Fernando Valley State College; J.D., 1968, University of San Fernando Valley College of Law; Member of the State Bar of California; Member of the Supreme Court of the United States

Mary E. Chin (1979) ....................................................... Associate Professor of Communication Disorders
B.S., 1954, Ohio State University; M.A., 1966, California State College, Long Beach; Ph.D., 1971, Northwestern University

Patricia Ann Chin (1989) .................................................... Assistant Professor of Nursing
B.S., 1979, California State College, Los Angeles; M.S., 1984, California State University, Los Angeles

Philip Chinn (1988) .......................................................... Professor of Education

Joseph A. Chrzanowski (1969) ........................................... Professor of Spanish

Barbara J. Clark (1968) .................................................... Professor of Education

Laurence E. Clark (1960) .................................................. Professor of Business Law
B.S., 1951, University of Notre Dame; M.A., 1959, University of Southern California; J.D., 1961, Loyola University of Los Angeles; admitted to the Bar, 1962, California

John L. Cleman (1971) ..................................................... Professor of English

Darrell R. Clemmensen (1976) ........................................... Professor of Office Systems and Business Education
B.S., 1970, University of Minnesota; M.S.T., 1974, University of Wisconsin; Ed.D., 1976, Arizona State University

Cathy L. Cobb (1987) ...................................................... Assistant Professor of Chemistry
B.A., 1981, Reed College; M.A., 1985, Ph.D., 1987, University of California, Santa Barbara

Nancy Cobb (1965) ............................................................ Professor of Psychology
B.A., 1961, College of William and Mary; M.A., 1963, Ph.D., 1965, University of Massachusetts

Bernard Codner (1955) .................................................... Professor of Marketing
B.S., 1949, City College of New York; M.S., 1950, Columbia University

Harold L. Cohen (1966) .................................................... Professor of Physics
B.A., 1959, M.S., 1962, Ph.D., 1968, Rutgers University

Neil A. Cohen (1976) .......................................................... Professor of Social Work
B.A., 1961, University of California, Los Angeles; M.S.W., 1966, University of California, Berkeley; Ph.D., 1972, Case Western Reserve University

William A. Cohen (1979) .................................................... Professor of Marketing

Kathleen Cohn (1989) ...................................................... Associate Professor of Education
B.A., 1967, University of Kansas; M.P.A., 1978, California State College, Long Beach; Ph.D., 1985, University of Southern California

William M. Cole (1964) ..................................................... Professor of Safety Studies
B.A., 1954, University of California, Santa Barbara; M.A., 1960, Los Angeles State College; Ed.D., 1976, Texas A&M University

Charles Coleman (1958) ................................................... Professor of Physics
B.A., 1959, M.A., 1961, Ph.D., 1968, University of California, Los Angeles

Joanne A. Collins (1982) .................................................. Professor of Accounting

Alan Andrew Colville (1962) .......................................... Professor of Geology
B.S., 1954, M.A., 1958, Ph.D., 1961, University of Indiana

Kathryn L. Combs (1988) ................................................ Assistant Professor of Economics and Statistics

David N. Connors (1990) ................................................ Assistant Professor of Music
B.Mus., 1980, Bradley University; M.M., 1988, University of Cincinnati

Mary Conroy (1969) ....................................................... Professor of Physical Education

Judith L. Cope (1987) ...................................................... Associate Professor of Education

William Cordeiro (1990) .................................................. Assistant Professor of Management
B.S., 1966, University of San Francisco; M.B.A., 1969, University of Southern California; M.A., 1983, Ph.D., 1988, Claremont Graduate School

Kathleen M. Costantini (1967) ........................................ Associate Professor of Education
B.A., 1963, M.S., 1967, University of Southern California

Webster E. Cotton (1966) ................................................ Professor of Education
A.B., 1950, University of Massachusetts; M.A., 1959, Ph.D., 1963, University of California, Los Angeles

Alan N. Crawford (1969) ................................................ Professor of Education

Frances A. Crawford (1979) ............................................ Director, Testing Office

Daniel Crecelius (1964) .................................................... Professor of History

Theodore J. Crowello (1987) .......................................... Dean of Graduate Studies and Research and Professor of Biology
B.S., 1962, Syracuse University; Ph.D., 1966, University of California, Berkeley

Leonardo Cuellar (1968) .................................................... Men's Soccer Coach
M.A., 1976, Universidad Nacional Autonoma de Mexico

Douglas L. Currell (1957) ................................................ Professor of Chemistry
B.A., 1950, M.A., 1954, University of Colorado; Ph.D., 1956, University of Arkansas

Ivan N. Cury (1990) .......................................................... Assistant Professor of Broadcasting

Peter Marc Damrien (1972) ........................................... Professor of Art

Fred Daneshgaran (1987) ................................................. Assistant Professor of Electrical Engineering
B.S., 1984, M.S., 1985, California State University, Los Angeles

Abbas Daneshvari (1982) ................................................ Professor of Art
B.S., 1969, California State College, Hayward; M.A., 1971, University of Massachusetts; Ph.D., 1977, University of California, Los Angeles

William D. Darrough (1973) ............................................ Professor of Sociology
B.A., 1965, Whittier College; M.S.W., 1967, University of California, Berkeley; Ph.D., 1975, University of British Columbia
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diego State University</td>
<td>B.A., 1971, San Fernando Valley State College; M.S.W., 1973</td>
<td>San Fernando Valley State College; Fresno: J.D., 1982, Loyola Marymount University</td>
</tr>
<tr>
<td>Michael M. Davidson</td>
<td>Associate Professor of Accounting</td>
<td>California State College, Los Angeles; M.B.T., 1976, University of Southern California; C.P.A., 1977, California</td>
</tr>
<tr>
<td>Rebecca L. Davis</td>
<td>Assistant Professor of Family Studies and Consumer Sciences</td>
<td>California State College, Los Angeles; M.P.A., 1974, University of California, Los Angeles</td>
</tr>
<tr>
<td>Shiree D. Davis</td>
<td>Professor of Education</td>
<td>Los Angeles State College; M.A., 1970, Ph.D., 1972, University of California, Los Angeles</td>
</tr>
<tr>
<td>Mary L. Diaz</td>
<td>Counselor</td>
<td>San Fernando Valley State College; M.S.W., 1973, San Diego State University</td>
</tr>
<tr>
<td>Lesley A. Di Mare</td>
<td>Associate Professor of Speech Communication</td>
<td>M.A., 1981, California State University, Hayward; Ph.D., 1984, Indiana University</td>
</tr>
<tr>
<td>Timothy D. Diamond</td>
<td>Professor of Education</td>
<td>Los Angeles State College; M.A., 1970, Ph.D., 1972, University of California, Los Angeles</td>
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<td>Phoebe Dea</td>
<td>Professor of Chemistry</td>
<td>California Institute of Technology</td>
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<tr>
<td>Marion V. Dearman</td>
<td>Professor of Sociology</td>
<td>San Jose State College; M.A., 1970, Ph.D., 1972, University of Oregon</td>
</tr>
<tr>
<td>John H. DeHardt</td>
<td>Professor of Mathematics</td>
<td>Central Missouri State College; M.A., 1954, Ph.D., 1958, University of Missouri</td>
</tr>
<tr>
<td>Cherie De Jong</td>
<td>Assistant Professor of Curriculum and Instruction</td>
<td>California State College at San Diego; M.A., 1978, Ph.D., 1989, University of California, Santa Barbara</td>
</tr>
<tr>
<td>Patricia A. Delaney</td>
<td>Professor of Recreation</td>
<td>California Institute of Technology</td>
</tr>
<tr>
<td>Roger Delgado</td>
<td>Associate Professor of Social Work</td>
<td>Brigham Young University; M.S.W., 1970, University of Texas; Ph.D., 1984, University of Southern California</td>
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<tr>
<td>Harry Delkeskamp</td>
<td>Assistant Director of Facilities Operations for Plant Operations</td>
<td>University of Missouri</td>
</tr>
<tr>
<td>Robert A. Deshamais</td>
<td>Assistant Professor of Biology</td>
<td>Massachusetts at Boston; M.S., 1979, Ph.D., 1982, University of Rhode Island</td>
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<tr>
<td>Donald O. Dewey</td>
<td>Dean, School of Natural and Social Sciences and Professor of History</td>
<td>University of Oregon; M.S., 1956, University of Utah; Ph.D., 1960, University of Chicago</td>
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<td>Assistant Professor of Sociology</td>
<td>University of Waterloo, Canada; M.A., 1973, Ph.D., 1977, Ohio State University</td>
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<tr>
<td>Felipe Diaz</td>
<td>Assistant Professor of Spanish</td>
<td>University of Kansas; M.A., 1973, Ph.D., 1978, University of Texas at Austin</td>
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<td>Jim D. Donohoo</td>
<td>Professor of Accounting</td>
<td>California State College; Fresno: J.D., 1982, Loyola Marymount University</td>
</tr>
<tr>
<td>Daniel Douke</td>
<td>Professor of Art</td>
<td>California State College, Los Angeles</td>
</tr>
<tr>
<td>Timothy Downs</td>
<td>Assistant Professor of Speech Communication</td>
<td>California State University; Sacramento; M.A., 1964, West Virginia University; Ph.D., 1998, University of Oklahoma</td>
</tr>
<tr>
<td>Lesley A. Di Mare</td>
<td>Assistant Professor of Family Studies and Consumer Sciences</td>
<td>California State College, Los Angeles; M.A., 1970, Ph.D., 1972, University of California, Los Angeles</td>
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<td>University of Kansas; M.A., 1973, Ph.D., 1978, University of Texas at Austin</td>
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<td>M.A., 1981, California State University, Hayward; Ph.D., 1984, Indiana University</td>
</tr>
</tbody>
</table>
Sarah P. Farnham (1971) .................................. Professor of Nursing
B.S., 1956, Boston University; M.S., 1968, University of California, Los Angeles

Marlene Sarah P. Famham (1971) .................................. Professor of Nursing
B.A., 1956, Mount Saint Mary's College; M.S., 1958, University of California, Los Angeles; R.N., 1956, P.H.N., 1960, California

Rod A. Faurot (1959) .................................. Professor of Physical Education
B.A., 1958, M.A., 1959, University of Washington

Stephen F. Feiszley (1979) .................................. Professor of Mechanical Engineering
B.S., 1961, M.S., 1963; University of California, Los Angeles. Ph.D., 1974, University of California, Berkeley

Robert L. Fennessy (1969) .................................. Professor of Health Science

Robert R. Fiedler (1961) .................................. Professor of Art
B.S., 1952, Wisconsin State College; M.S., 1958, M.F.A., 1959, University of Wisconsin

Eugene R. Fingerhut (1962) .................................. Professor of History

Stuart P. Fishoff (1972) .................................. Associate Professor of Psychology

Janet C. Fisher (1966) .................................. Professor of Education
B.A., 1958, University of Washington; M.A., 1972, University of California, Los Angeles; Ed.D., 1980, University of Southern California

David Fitzpatrick (1967) .................................. Professor of Psychology
B.A., 1962, University of California, Riverside; M.A., 1965, Ph.D., 1968, Claremont Graduate School

Richard W. Fleming (1972) .................................. Associate Professor of Microbiology

Edward C. Forde (1971) .................................. Professor of Art
B.A., 1968, M.F.A., 1971, University of California, Santa Barbara

James M. Francisco (1989) .................................. Assistant Professor of Music

Grant A. Fraser (1982) .................................. Professor of Mathematics and Computer Science

Anthony Fratiello (1963) .................................. Professor of Chemistry
B.S., 1957, Providence College; Ph.D., 1962, Brown University

Glenn Freed (1990) .................................. Associate Professor of Accounting
B.S., 1982, University of Florida; C.P.A., 1983, Florida

Marilyn Friedman (1967) .................................. Professor of Nursing
B.S., 1959, University of California, Los Angeles; M.S., 1963, University of Minnesota; Ph.D., 1985, University of Southern California; R.N., 1959, California

Norman L. Friedman (1968) .................................. Professor of Sociology
B.S., 1957, M.A., 1958, Ph.D., 1985, University of Missouri

Philip Friedman (1959) .................................. Professor of English
A.B., 1948, New York University; M.A., 1949, Columbia University

John Futakura (1968) .................................. Assistant Professor of Art
B.A., 1956, Tokyo Metropolitan University, Japan; M.F.A., 1988, California State University, Los Angeles

Bernardo Gallegos (1987) .................................. Assistant Professor of Education
B.A., 1974, University of Wisconsin—LaCrosse; M.A., 1980, Ph.D., 1988, University of New Mexico

Jose L. Galvan (1990) .................................. Assistant Professor of Education
B.S., 1970, M.A., 1972, Ph.D., 1980, University of Texas

Perry S. Ganes (1970) .................................. Professor of Physics
B.S., 1960, University of Queensland, Australia; Ph.D., 1968, University of Sydney, Australia

Nandakumar Ganesan (1985) .................................. Professor of Information Systems

Guemersindo Garcia, Jr. (1976) .................................. Physician, Student Health Center
M.D., 1947, University of the Philippines

Raymond E. Garcia (1982) .................................. Associate Professor of Biochemistry
B.S., 1966, California Polytechnic State College; San Luis Obispo; B.A., 1970, Ph.D., 1976, University of California, Riverside

Ann Garry (1969) .................................. Professor of Philosophy
B.A., 1965, Monmouth College; M.A., 1966, University of Chicago; Ph.D., 1970, University of Maryland

Neil H. Garston (1975) .................................. Professor of Economics and Statistics

Michael G. Gaston (1969) .................................. Professor of Psychology

Jeanine S. Gaucher-Morales (1965) .................................. Professor of French and Spanish
B.A., 1960, University of Nebraska; M.A., 1962, Ph.D., 1965, University of Southern California

Ronald L. Gibson (1979) .................................. Special Projects Manager, Information Resources Management

Irene M. Girton (1989) .................................. Assistant Professor of Music
B.Mus., 1976, Oberlin College; M.Phil., 1979, Ph.D., 1981, Yale University

Christine Gladish (1988) .................................. Associate Librarian, Public Services
B.A., 1970, Ithaca College; M.L.S., 1971, Case Western Reserve University; M.P.A., 1976, University of Southern California

Wayne Gladish (1987) .................................. Associate Librarian and Head, Acquisitions Services

Theil E. Glasscock (1971) .................................. Professor of Criminal Justice
B.S., 1970, California State College, Los Angeles; M.P.A., 1971, University of Southern California

David J. Godoy (1979) .................................. Assistant Vice President for Student Affairs—Educational Equity Administration
B.A., 1972, California State University, Los Angeles; M.A., 1987, National University

Phillip L. Gold (1967) .................................. Professor of Mechanical Engineering
B.S., 1958, M.S., 1959, Ph.D., 1965, University of California, Los Angeles

Edward M. Goldberg (1961) .................................. Professor of Political Science
B.A., 1953, Brooklyn College; M.A., 1956, University of New Mexico; Ph.D., 1965, University of Pennsylvania

Herbert Goldberg (1965) .................................. Professor of Psychology
A.B., 1958, City College of New York; Ph.D., 1963, Adelphi University; Licensed Psychologist, 1968, California

Alan H. Goldstein (1990) .................................. Associate Professor of Biology
B.S., 1977, New Mexico State University; M.S., 1979, Ph.D., 1981, University of Arizona

Harold Goldwhite (1962) .................................. Professor of Chemistry
B.A., 1953, Ph.D., 1956, Cambridge University, England

Ricardo J. Gomez (1983) .................................. Professor of Philosophy

Alfonso Gonzalez (1975) .................................. Professor of Spanish
Alfredo G. González (1977) .......... Dean of Undergraduate Studies and Professor of Social Work

José Cruz González (1990) ........... Assistant Professor of Theatre Arts

Lawrence P. Goodman (1961) ......... Professor of Theatre Arts
B.S., 1954, M.A., 1955, Northwestern University; Ph.D., 1968, University of Southern California.

Carl E. Gordon (1970) ............. Associate Professor of Mathematics and Computer Science


Reid J. Gunnell (1958) .............. Professor of Physical Education
B.A., 1972, University of California, Santa Barbara; Ph.D., 1980, University of California, Los Angeles.

Carlos G. Gutierrez (1976) ......... Professor of Chemistry
B.S., 1971, University of California, Los Angeles; Ph.D., 1975, University of California, Davis.

Charles Haberman (1959) .......... Professor of Mechanical Engineering

Dan Hackel (1989) .............. Associate Professor of Broadcasting

Rosemary Hale (1980) .............. Professor of English

Edmond C. Hallberg (1965) ......... Professor of Education

Judith Hamara (1987) ............. Associate Professor of Speech Communication

Cynthia Hamilton (1985) .......... Associate Professor of Pan-African Studies

Judd Hamburger (1970) ......... Professor of Economics and Statistics

Sin Fong Han (1971) .............. Professor of Geography
Diploma, 1963, Chung Chi College, Chinese University of Hong Kong; Hong Kong; M.A., 1966, McGill University, Canada; Ph.D., 1971, University of Michigan.

Timothy Fox Harding (1963) ....... Professor of History

Clifford D. Harper (1982) ........ Professor of Theatre Arts

Kathleen C. Harris (1981) .......... Professor of Education

Margaret J. Hartman (1970) ....... Associate Vice President for Academic Affairs--Faculty and Administration and Professor of Biology

Hassan Hashemian (1960) .......... Associate Professor of Civil Engineering
B.S., 1972, M.S., 1974, University of Wisconsin; Ph.D., 1980, University of California, Berkeley.

Harry S. Hayashi (1963) .......... Professor of Mathematics
A.B., 1953, University of Hawaii; M.A., 1957, Ph.D., 1962, University of Southern California.

Rick Stephan Hayes (1990) .......... Associate Professor of Accounting

Peter D. Hechler (1973) .......... Professor of Management

J. Dennis Heim (1966) .............. Professor of Education

W. Keith Henning (1966) .......... Professor of Speech Communication

James Henrikson (1966) .......... Professor of Biology

John O. Herbold II (1983) ........ Men’s Head Baseball Coach

Fernando A. Hernandez (1972) ....... Professor of Education

Grace Shizuko Herrera (1990) ....... Associate Professor of Theatre Arts
B.A., 1979, California State University, Los Angeles.

Daniel A. Herwitz (1985) .......... Associate Professor of Philosophy
B.A., 1977, Brandeis University; Ph.D., 1984, University of Chicago.

E. Anne Hess (1968) .............. Librarian and Library Systems Analyst
B.A., 1962, Texas Lutheran College; M.L.S., 1965, University of Texas at Austin.

Udo Heyn (1969) .............. Professor of History
Byron O. Jackson (1986) .................. Professor of Political Science

Durward P. Jackson (1981) .................. Professor of Information Systems
B.S., 1984, University of Arizona; M.E.A., 1989, University of Utah; M.B.A., 1978, Golden Gate University; Ph.D., 1983, Claremont Graduate School

Raleigh Jackson (1973) .................. Professor of Education
B.S., 1958, Southern University; M.A., 1965, Ph.D., 1972, Ohio State University

George H. Jacobson (1984) ............ Associate Professor of Information Systems

George E. Jakway (1961) .................. Associate Professor of Biology
B.A., 1953, Idaho State College; M.A., 1958, University of Kansas; Ph.D., 1963, University of Nebraska

Michael E. James (1966) .................. Associate Professor of Education
B.A., 1969, M.A., 1976, California State University, Los Angeles; Ph.D., 1987, Claremont Graduate School and University Center

Colleen E. Jamison (1965) ............ Professor of Education

Margaret Jefferson (1977) .................. Professor of Biology
B.S., 1959, University of Dubuque; M.A., 1971, University of Colorado; Ph.D., 1977, University of Arizona

Raymond L. Jeng (1968) .................. Professor of Civil Engineering
B.S., 1962, National Taiwan University, Taiwan, Republic of China; M.S., 1965, Ph.D., 1966, Colorado State University; Registered Professional Civil Engineer, 1973, California

George Jensen (1962) .................. Associate Professor of Economics and Statistics
B.S., 1958, Utah State University; Ph.D., 1968, University of Washington

Nandita Junjunwala (1967) ............ Associate Professor of Mathematics
B.S., 1958, Calcutta University, India; M.S., 1963, University of Bombay, India; Ph.D., 1966, Northwestern University

Jo Ann Johnson (1968) .................. Professor of Nursing

Joan D. Johnson (1955) .................. Professor of Physical Education
B.S., 1951, University of Wisconsin; M.S.Ed., 1955, Ph.D., 1965, University of Southern California

Karen M. Johnson (1965) ............ Associate Dean, School of Health and Human Services and Professor of Physical Education
B.A., 1960, College of Idaho; M.A., 1965, California State College, Los Angeles; Ph.D., 1974, University of Southern California

Ruth S. Johnson (1990) ............ Associate Professor of Education
B.S., 1961, Springfield College; M.A., 1969, William Patterson University; Ed.D., 1985, Rutgers University

Sharon Kay Johnson (1988) ............ Associate Professor of Education
B.S., 1974, University of California, Los Angeles; M.S. (date), California State University, Fullerton; Ed.D., 1988, Virginia Technical Institute and State College

Steven S. Jones (1983) ............ Professor of English
B.A., 1971, Haverford College; M.A., 1974, Ph.D., 1979, University of California, Davis

Gary V. Jorden (1976) ............ Associate Professor of Accounting
B.S., 1972, M.B.A., 1975, California State University, Los Angeles; C.P.A., 1974, California

Marguerite Joyce (1999) ............ Associate Professor of Office Systems and Business Education
B.S., 1973, Missouri Western State College; M.Ed., 1975, Bowling Green State University; Ed.D., 1978, University of Nebraska
Terry R. Kandal (1968) ............................ Professor of Sociology

Richard H. Kao (1983) .............................. Professor of Marketing
  B.C., 1964, National Chengchi University, Taiwan; M.B.A., 1971, Michigan State University; Ph.D., 1978, University of Michigan

Indira Karamcheti (1987) ........................ Assistant Professor of English
  B.A., 1974, M.A., 1977, Ph.D., 1986, University of California, Santa Barbara

John E. Karayan (1986) ............................ Associate Professor of Accounting
  B.A., 1972, University of California, San Diego; J.D., 1977, University of Southern California; M.B.A., 1987, Caremont Graduate School

Kamran Karimlou (1984) ............................ Professor of Electrical Engineering
  B.S., 1977, University of Sussex, England; M.S., 1978, University of North Wales; Ph.D., 1983, University of Southern California

Ilia G. Kastanas (1961) ............................. Associate Professor of Mathematics
  M.S., 1976, Ph.D., 1981, California Institute of Technology

Kazumitsu Kato (1963) .............................. Professor of Japanese
  B.A., 1955, San Francisco State College; M.A., 1957, Ph.D., 1959, University of the Pacific

Richard Katz (1969) ............................... Professor of Mathematics
  B.E.E., 1958, City College of New York; Ph.D., 1967, University of California, Los Angeles

Jesse Kaufman (1966) .............................. Manager, Instructional Media Support Lab
  B.A., 1964, California State College, Los Angeles

Dorothy L. Keane (1973) ............................ Professor of Education

Valerie C. Kemh (1979) ............................. Associate Professor of Family Studies
  B.S., 1967, M.S., 1971, University of Nebraska; Ph.D., 1977, Pennsylvania State University

Barbara Keller (1990) ............................. Assistant Professor of Finance and Law
  B.A., 1969, Northwestern University; J.D., 1977, Loyola University of Chicago; admitted to the bar, California, 1978

Michael P. Kelley (1972) .......................... Professor of Speech Communication
  B.A., 1965, University of Notre Dame; M.A., 1969, Ph.D., 1976, University of Pittsburgh

Delos H. Kelly (1976) ............................... Professor of Sociology

Irving Kett (1971) ................................. Professor of Civil Engineering

Richard T. Keys (1969) ............................. Professor of Chemistry
  A.B., 1953, Harvard University; Ph.D., 1958, Iowa State College

Hendrik Keyzer (1967) ............................. Professor of Chemistry
  B.S., 1963, Ph.D., 1966, University of New South Wales, Australia

Rauf-Ur R. Khan (1968) ............................ Professor of Management

Nazareth Khodigian (1990) ........................ Assistant Professor of Physical Education

Donald I. Kiel (1960) .............................. Professor of Mathematics and Computer Science
  A.B., 1953, Calvin College; M.A., 1956, University of Michigan; Ph.D., 1973, University of Southern California

Vernon L. Kiker, Jr. (1962) ....................... Professor of Psychology
  B.S., 1945, M.S., 1954, Oklahoma State University; Ph.D., 1961, Ohio State University

Raymond B. Killgrove (1966) ...................... Professor of Mathematics
  B.A., 1953, M.A., 1957, Ph.D., 1962, University of California, Los Angeles

George B. Killinger (1982) ....................... Associate Professor of Electrical Engineering
  B.S.E.E., 1955, M.S.E.E., 1958, Ph.D., 1968, University of Pittsburgh

Byong-Kon Kim (1963) .............................. Professor of Music

Jeong Y. Kim (1990) ............................... Assistant Professor of Accounting
  B.Law, 1977, Yonsei University; M.B.A., 1984, San Francisco State University; Ph.D., 1989, Washington State University

Kyungho Kim (1997) ............................... Assistant Professor of Accounting
  B.A., 1978, Seoul National University; M.S., 1983; Ph.D., 1987, Purdue University

Neung-Jip Kim (1988) ............................. Assistant Professor of Accounting

Sun K. Kim (1964) ................................. Professor of Economics and Statistics
  B.Com., 1956, Seoul National University; A.M., 1959, University of Missouri; Ph.D., 1966, University of Southern California

Taein Kim (1987) ................................. Associate Professor of Finance and Real Estate
  B.A., 1974, Yonsei University; M.A., 1982, Ph.D., 1986, University of Georgia

Young C. Kim (1965) .............................. Professor of Civil Engineering
  B.S.C.E., 1958, University of Southern California; M.S.C.E., 1959, California Institute of Technology; Ph.D., 1964, University of Southern California

John A. Kirchner (1979) ......................... Professor of Geography and Marketing
  B.A., 1966, San Jose State College; M.A., 1970, Ph.D., 1979, University of Chicago

M. Diane Klein (1981) ............................ Professor of Education
  B.A., 1967, Central Michigan University; M.A., 1969, Western Michigan University; Ph.D., 1980, Michigan State University

Norman Klein (1971) .............................. Professor of Anthropology
  B.A., 1965, California State College, Los Angeles; M.A., 1966, University of California, Los Angeles; Ph.D., 1975, University of Oregon

Dale L. Knapp (1959) .............................. Professor of Education
  B.S., 1949, Thiel College; M.A., 1951, Ph.D., 1959, Ohio State University

Mary Lynne Knutson (1972) ....................... Professor of Office Systems and Business Education
  B.A., 1959, M.A., 1971, Ph.D., 1974, University of North Dakota

Nadine Sue Koch (1987) .......................... Assistant Professor of Political Science

Gregor Kolesnik (1984) ........................... Professor of Mathematics
  M.S., 1965, Moscow State University, U.S.S.R.; Ph.D., 1972, Kiev State University, U.S.S.R.

Linda I. Kostalik-Bousom (1986) ............... Associate Professor of Dance

Mary A. Kramer (1972) ............................ Associate Professor of Family Studies and Consumer Sciences
  B.S., 1950, Valparaiso University; M.S., 1952, Purdue University

Ellen King Kravitz (1967) ....................... Professor of Music
  B.A., 1964, Georgian Court College; M.M., 1966, Ph.D., 1970, University of Southern California

Beverly Krollowicz (1990) ....................... Assistant Professor of Biology
  B.S., 1977, California State College at Fullerton; Ph.D., 1984, University of California, Riverside
Mitsuru Kubota (1970) .......................... Counselor

Robert D. Kelly (1956) ........ Professor of Speech Communication
B.A., 1950, Hastings College; M.A., 1954, University of Oregon; Ph.D., 1956, University of Illinois

JoAn D. Kunselman (1990) ........ University Librarian
A.B., 1958, Vassar College; M.L.S., 1974, Louisiana State University; M.M., 1974, University of Maryland; Ph.D., 1976, Louisiana State University

Nancy E. Kupka (1982) ............ Associate Professor of Dance
B.A., 1975, California State University, Los Angeles; M.A., 1979, University of California, Los Angeles

Kwok Keung (Kenn) Kwong (1966) ...... Professor of Management
B.S., 1980, Chinese University of Hong Kong; M.B.A., 1985, Ph.D., 1986, Georgia State University

Jean P. LaCour (1977) ............. Associate Professor of Psychology

Stephen E. GaLauchy (1967) .... Associate Professor of Geography
B.A., 1967, University of California, Los Angeles; M.S., 1969, Colorado State University; Ph.D., 1985, University of Missouri, Columbia

Ko Sun Lee (1967) .............. Assistant Professor of Economics and Statistics
B.S.S., 1959, University of Hong Kong; M.S., 1981, London School of Economics; Ph.D., 1987, University of Pennsylvania

Michael [Sun-Chung] Lee (1987) ...... Assistant Professor of Finance
B.A., 1975, National Chengchi University; M.B.A., 1982, State University of New York at Buffalo; Ph.D., 1988, University of Southern California

H. Landar (1960) ............... Professor of English
B.A., 1949, Queens College; M.A., 1955, Ph.D., 1960, Yale University

Raymond B. Landis (1985) ...... Dean, School of Engineering and Technology and Professor of Mechanical Engineering
B.S., 1962, M.S., 1963, Massachusetts Institute of Technology; Ph.D., 1971, University of California, Los Angeles

Teresa Larkin (1990) ............ Assistant Professor of Theatre Arts

Tom Edward Larson (1997) ........ Professor of Economics and Statistics
B.A., 1979, University of California, Santa Cruz; Ph.D., 1986, University of Southern California

Sharon S. Lasar (1987) ............ Assistant Professor of Accounting
B.S., 1979, West Virginia University; M.S.T., 1983, Bentley College; C.P.A., 1983

Christine Pollack Latham (1979) ...... Professor of Nursing
B.S., 1974, University of Wisconsin; M.S., 1979, California State University, Long Beach

Chor Tin Lau (1986) .............. Professor of Accounting
B.Com, 1968, Sir George Williams University, Canada; M.B.A., 1968, McMaster University, Canada; Ph.D., 1976, University of Oregon

Richard Lau (1986) ............. Assistant Professor of Accounting
B.S., 1984, University of Southwestern Louisiana; M.Sc., 1986, Ph.D., 1989, Louisiana State University

John Y. Lee (1981) ............. Professor of Accounting
B.S., 1970, Seoul National University, Korea; M.S., 1976, Ph.D., 1979, Louisiana State University

June A. Lester (1983) ............ Professor of Mathematics
B.S., 1970, Memorial University, Canada; M.M., 1972, Ph.D., 1976, University of Waterloo, Canada

Yuen-Sang (Philip) Lui (1986) ........ Associate Professor of History
B.A., 1972, M.Phil., 1974, Chinese University of Hong Kong; Ph.D., 1980, University of Santa Barbara

Janet Laver (1990) ............ Assistant Professor of Sociology
B.A., 1968, Washington University; M.Ph., 1971, Ph.D., 1974, Yale University

Anson J. Levine (1959) .... Associate Professor of Psychology

Jack G. Levine (1960) ........ Professor of Electrical Engineering
B.S., 1958, M.S., 1960, University of California, Los Angeles

Herbert Levitt (1969) ............ Counselor
B.B.A., 1955, City College of New York; M.S., 1956, Ph.D., 1959, University of California, Los Angeles

Joan J. Lewis (1966) ............ Counselor
B.A., 1957, Los Angeles State College; M.A., 1979, Goddard College; Licensed Marriage, Family, and Child Counselor, 1980, California

Charles F. Leyba (1965) ........ Professor of Education
A.B., 1951, M.A., 1952, Gonzaga University; Ph.D., 1967, University of Southern California

Cheng Li (1968) .............. Assistant Professor of Management

Roy Lieberman (1969) ........... Librarian and Head, Cataloging Services
B.A., 1958, Brooklyn College; M.L.S., 1960, Pratt Institute; M.A., 1978, California State University, Los Angeles

Randall B. Lindsey (1981) .......... Professor of Education
B.S., 1964, Western Illinois University; M.A., 1968, University of Illinois; Ph.D., 1975, Georgia State University

Rina Ling (1975) .............. Professor of Mathematics
B.S., 1970, M.S., 1972, Ph.D., 1976, University of Illinois

Eltham Lipton (1964) ............ Associate Professor of Technology
B.A., 1976, M.A., 1983, California State University, Los Angeles; Ph.D., 1990, University of Southern California

Jasper Little (1978) ............ Professor of Education
B.A., 1959, San Francisco State College; M.A., 1969, California State College, Los Angeles; Ph.D., 1973, California State University, Los Angeles/University of California, Los Angeles

Peter R. Lockett (1969) .......... Professor of Accounting

Anthony Longetti (1985) ........ Associate Professor of Criminal Justice
B.A., 1959, University of California, Berkeley

Tony Longson (1989) ............ Associate Professor of Art
B.A., 1971, Reading University, England; M.A. (equivalent to M.A.), 1979, University of the Arts, Philadelphia

Ching-Hsing (Jean) Loo (1985) ....... Professor of Finance
B.A., 1976, National Taiwan University; M.A., 1978, University of Cincinnati; Ph.D., 1984, Ohio State University

Genaro A. Lopez (1981) ........ Professor of Biology
B.A., 1963, Pan American College; M.S., 1967, University of Maine; Ph.D., 1973, Colorado State University

Marta C. Lopez-Garza (1969) ........ Assistant Professor of Sociology
B.A., 1974, M.A., 1976, Ph.D., 1985, University of California, Los Angeles
Peter L. LoPresli (1980) ........................................ Professor of Education

Z. Barry Lowenkon (1973) .................................. Professor of Psychology
B.A., 1962, M.A., 1965, University of California, Los Angeles; Ph.D., 1968, University of New Mexico

Irwin Lubin (1965) .............................................. Professor of Psychology
A.B., 1952, Cornell University; M.A., 1953, University of Connecticut; Ph.D., 1964, Pennsylvania State University; Licensed Psychologist,
1967, California

Stephen K. Ma (1970) ........................................ Assistant Professor of Political Science
B.A., 1966, Shanghai Institute of Foreign Languages; M.A., 1985, University of Alberta, Canada

G. Grant MacCurdy ............................................ Associate Professor of the Bar,
Wisconsin

Edward S. Malecki, Jr. (1967) .................................. Professor of Political Science

Edward Maljian (1963) ......................................... Professor of Health Science

Ramachandra Manvi (1971) .................................... Professor of Mechanical Engineering
B.E., 1958, Osmania University, India; Ph.D., 1968, Washington State University; Registered Professional Mechanical Engineer, 1973, California

Demetrios J. Margaziotis (1964) ................................. Professor of Physics

Judith S. Marginolis (1973) ................................... Professor of Education
B.S., 1949, Brooklyn College; M.A., 1953, New York University, Ph.D., 1972, University of California, Los Angeles

Mary Catherine Marks (1990) ................................ Assistant Professor of Physical Education
B.S., 1975, San Jose State College; M.A., 1985, San Jose State University; Ph.D., 1988, Ohio State University

B. S., 1975, San Jose State College; M.A., 1985, San Jose State University; Ph.D., 1988, Ohio State University

Chogollah Maroufi (1988) ..................................... Associate Professor of Education
B.S., 1978, M.A., 1979, California Polytechnic State College, San Luis Obispo; Ph.D., 1987, University of California, Los Angeles

Rosemarie Marshall (1976) ................................... Coordinator, Health Related Programs and Professor of Microbiology
B.S., 1964, University of Washington; M.S., 1966, Ph.D., 1968, Iowa State University

Catherine Martin (1970) ...................................... Professor of Anthropology
B.A., 1965, Reed College; M.A., 1967, Ph.D., 1971, University of California, Los Angeles

Patricia Martz (1990) .......................................... Assistant Professor of Anthropology
B.A., 1974, California State College, Long Beach; Ph.D., 1964, University of California, Riverside

Susan Mason (1990) ........................................... Assistant Professor of Theatre Arts
B.A., 1979, San Jose State University; M.A., 1973, Idaho State University; Ph.D., 1980, University of Oregon

Mark Massey (1989) ............................................ Women's Volleyball Coach
B.S., 1979, Furman College; M.S., 1981, Ithaca College

Masako M. Matsuda (1977) .................................. Professor of Communication Disorders
B.A., 1964, California State College, Fresno; M.A., 1973, California State University, Fresno; Ph.D., 1981, Pennsylvania State University

Michael J. Maurer (1970) ..................................... Professor of Mechanical Engineering
B.S., 1959, Illinois Institute of Technology; M.S., 1967, Ph.D., 1970, Tulane University

Don M. Maurizio (1979) ..................................... Associate Dean, School of Engineering and Technology and Professor of Technology
B.A., 1971, California State College, Los Angeles; M.A., 1979, California State University, Los Angeles; Ed.D., 1983, United States International University

Andrea P. Maxie (1986) ....................................... Associate Professor of Education
B.A., 1971, M.S., 1974, University of Southern California; Ph.D., 1987, University of California, Los Angeles

C. Lamar Mayer (1965) ...................................... Associate Dean, School of Education and Professor of Education

G. Roy Mayer (1968) .......................................... Professor of Education

Vincent G. Mazzucchelli (1971) ............................... Professor of Geography
B.A., 1950, Fresno State College; M.A., 1951, Syracuse University; Ph.D., 1973, University of California, Los Angeles

Lois G. McClain (1976) ....................................... Associate Professor of Accounting
B.S., 1970, California State College, Los Angeles; M.B.A., 1975, California State University, Los Angeles; C.P.A., 1972, California

Richard McComb (1979) ...................................... Professor of Music

Mary Pat McNenue (1981) ................................... Professor of Management
B.A., 1975, Boston College; M.A., 1979, Ph.D., 1980, Wayne State University

Carol G. McKenzie (1970) .................................. Professor of Recreation
B.A., 1963, University of Colorado; M.A., 1965, Indiana University; Ph.D., 1974, University of Southern California

David McNutt (1983) ....................................... Director, Creative Media Services
B.A., 1967, California State College, Los Angeles; M.A., 1976, California State University, Los Angeles

Nancy L. McQueen (1989) .................................. Assistant Professor of Microbiology
B.S., 1975, California State Polytechnic College, Pomona; Ph.D., 1986, University of California, Los Angeles

Margaret E. McWilliams (1961) ......................... Professor of Family Studies and Consumer Sciences
B.S., 1951, M.S., 1953, Iowa State University; Ph.D., 1968, Oregon State University

Robert F. Meade (1960) ....................................... Professor of Geology
B.S., 1955, California Institute of Technology; Ph.D., 1967, University of California, Los Angeles

Henry R. Mendell (1983) .................................... Associate Professor of Philosophy
A.B., 1971, Cornell University; M.A., 1974, Cambridge University, England; Ph.D., 1986, Stanford University

Pauline Mercado (1983) ....................................... Assistant Professor of Education
B.A., 1974, M.A., 1976, San Diego State University; Ph.D., 1983, University of California, Santa Barbara

Robert L. Meyer (1970) ...................................... Associate Professor of Mathematics
B.S., 1963, M.A., 1964, University of Missouri; Ph.D., 1969, Michigan State University

Hrushikesh N. Mhaskar (1980) ................................. Professor of Mathematics
B.S., 1974, Nagpur University, India; M.S., 1976, Indian Institute of Technology, India; M.S., 1977, Ph.D., 1980, Ohio State University

Dariene M. Michener (1986) ................................ Associate Professor of Education
B.S.Ed., 1979, Northern Illinois University; M.A., 1982, Ph.D., 1985, University of South Florida

June Kim Miller (1969) ....................................... Assistant Professor of Nursing
B.S., 1974, California State College, Los Angeles; M.N., 1978, University of California, Los Angeles; Ph.D., 1988, University of Southern California

Robert A. Miller (1966) ..................................... Professor of Physical Education
B.A., 1952, Occidental College; M.A., 1966, California State College, Los Angeles
Joan Sabrina Mims (1987) .................................. Associate Professor of Education
B.A., 1977, University of Southern California; M.A., 1980, San Diego State University; Ph.D., 1988, Claremont Graduate School/San Diego State University

Majieddin Mirmirani (1981) ................................ Professor of Mechanical Engineering
S.S., 1987, Tehran Polytechnic, Iran; M.S., 1971, Ph.D., 1977, University of California, Berkeley

Yvnda K. Mitchell (1980) .................................. Professor of Education
B.A., 1975, University of California, Los Angeles; M.A., 1977, California State University, Northridge; Ph.D., 1980, Stanford University

Thomas Miyake (1965) ...................................... Associate Professor of Music

Tina Mochizuki (1989) ........................................ Men's and Women's Tennis Coach

All Modares (1990) ............................................. Assistant Professor of Geography and Urban Analysis

Madhu S. Mohanty (1990) .................................. Assistant Professor of Economics and Statistics
B.A., 1977, M.A., 1979, Ph.D., 1983, Utkal University, India; Ph.D., 1990, University of Wisconsin–Milwaukee

Genevieve L. Monahan (1988) .................. Assistant Professor of Nursing
B.A., 1975, University of California, Berkeley; B.S., 1979, Boston University; M.S., 1988, University of Arizona; R.N., P.H.N., 1979, California

Lorraine Mannin (1969) .................................. Professor of Communication Disorders

Raquel Montenegro (1969) ......................... Professor of Education
B.A., 1950, Washburn University; M.A., 1968, California State College, Los Angeles; Ph.D., 1973, Claremont Graduate School

Michael F. Moore (1972) ................................... Men's and Women's Swimming and Diving Coach
B.A., 1969, California State College, Los Angeles; M.A., 1975, California State University, Los Angeles

John Morant (1973) ........................................ Health Information Coordinator

Allen A. Mori (1987) ...................................... Dean, School of Education and Professor of Education

Robert R. Morman (1956) .......................... Professor of Education
B.A., 1947, University of California, Los Angeles; M.A., 1949, Ph.D., 1955, University of Southern California

Ronald H. Morris (1960) ................................ Professor of Physical Education
B.S., 1957, M.S., 1958, University of Southern California

Paul T. Mu (1969) .......................................... Professor of Economics and Statistics
B.A., 1960, National Taiwan University, Taiwan, Republic of China; M.A., 1965, University of Nevada, Reno; Ph.D., 1970, University of California, Davis

Alan E. Muchilinski (1979) ......................... Professor of Biology
B.A., 1975, St. John's University; Ph.D., 1979, Michigan State University

Barry Munitz (1991) .................................... Chancellor, The California State University and Professor of English

Dennis M. Murphy (1975) ......................... Professor of Accounting

Patricia A. Nava (1986) ................................ Assistant Professor of Electrical Engineering
B.S., 1980, M.S., 1982, New Mexico State University

Edward Negrete, Jr. (1985) ..................... Associate Professor of Education
B.A., 1967, Idaho State University; M.A., 1976, Pepperdine University; Ed.D., 1982, University of California, Los Angeles

Louis R. Negrete (1972) ................................ Professor of Chicano Studies

Mary Lou Nevin (1958) ................................ Assistant Professor of Education

Donald A. Nielsen (1968) ......................... Professor of Education
B.A., 1952, M.A., 1957, Los Angeles State College; Ph.D., 1974, University of California, Los Angeles

Gordon L. Nipp (1971) .................................. Associate Professor of Mathematics
B.A., 1963, Wartburg College; M.A., 1965, University of Wisconsin; Ph.D., 1972, University of Southern California

Gary A. Novak (1970) .................................. Professor of Geology
B.S., 1965, University of Dayton; M.S., 1967, Pennsylvania State University; Ph.D., 1970, Virginia Polytechnic Institute and State University

Jonathan Nkem Nwonomoh (1970) ............ Assistant Professor of Pan-African Studies
B.A., 1968, California State College, Los Angeles; M.A., 1970, M.S., 1973, University of Southern California; Ph.D., 1975, United States International University; Ph.D., 1979, Claremont Graduate School

Freda V. O'Bannon (1968) ......................... Professor of Nursing
B.S., 1965, M.S., 1966, University of California, Los Angeles; R.N., 1962, California

Eduardo M. Ochoa (1984) ......................... Associate Professor of Economics and Statistics

Imelda R. O'Connor (1989) .................. Assistant Professor of Art
B.A., 1965, University College, Ireland; M.A., 1979, Sophia University, Japan; Ph.D., 1987, Ohio University

Moonsong David Oh (1980) ...................... Associate Dean, School of Business and Economics and Professor of Marketing

Robert M. Oldham (1961) ......................... Professor of Physical Education

Marjorie Elaine O'Leary (1960) .............. Associate Professor of Nursing
B.S.N., 1966, Northwestern State College; M.S.N., 1968, University of Alabama; R.N., 1972, California

Jon L. Olson (1970) .......................... Associate Professor of Anthropology
B.S., 1962, Case Institute of Technology; Ph.D., 1972, Michigan State University

Thomas P. Onak (1959) ......................... Professor of Chemistry
A.B., 1954, San Diego State College; Ph.D., 1958, University of California, Berkeley

Aida Takia O'Reilly (1970) .................. Professor of Pan-African Studies
B.A., 1952, Cairo University, Egypt; M.A., 1955, University of California, Los Angeles; Doctorat d'Université, 1969, University of Paris, France

Elliott Oring (1971) ........................................ Professor of Anthropology
B.A., 1966, Queens College; M.A., 1968, Ph.D., 1974, Indiana University

John Orta (1990) ........................................ Associate Professor of Family Studies and Consumer Sciences

Elaine Osio (1970) ........................................ Professor of English
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Education</th>
</tr>
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<tbody>
<tr>
<td>Raj R. Ramchandani</td>
<td>Professor of Electrical Engineering</td>
<td>B.Sc., 1964, Birla Institute of Technology, India; M.S., 1966, Pennsylvania State University; Ph.D., 1975, Ohio State University</td>
</tr>
<tr>
<td>Robert D. Reesor</td>
<td>Associate Dean, School of Arts and Letters</td>
<td>Associate Professor of Art</td>
</tr>
<tr>
<td>B.S., 1953, Northern Illinois University; M.A., 1959, University of Denver; Ph.D., 1974, Ohio State University</td>
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</tr>
<tr>
<td>James A. Regalado</td>
<td>Associate Professor of Political Science</td>
<td>B.A., 1971, M.A., 1973, California State College, Los Angeles; Ph.D., 1980, University of California, Riverside</td>
</tr>
<tr>
<td>Suzanne E. Regan</td>
<td>Associate Professor of Broadcasting</td>
<td>B.A., 1971, Simmons College, M.A., 1974, University of California, Los Angeles; Ph.D., 1981, University of Massachusetts</td>
</tr>
<tr>
<td>Maynard Reynolds</td>
<td>Distinguished Visiting Professor of Education</td>
<td>1990-1991 Guggenheim Professor of Mental Retardation</td>
</tr>
<tr>
<td>B.S., 1942, Marhead State University; M.A., 1947, Ph.D., 1950, University of Minnesota</td>
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</tr>
<tr>
<td>Edward H. Rezayi</td>
<td>Associate Professor of Physics</td>
<td>B.S., 1972, Worcester Polytechnic Institute; Ph.D., 1979, Stanford University</td>
</tr>
<tr>
<td>Patricia Richard-Amato</td>
<td>Professor of Education</td>
<td>B.S., 1962, University of Minnesota; M.Ed., 1965, University of Arizona; Ph.D., 1984, University of New Mexico</td>
</tr>
<tr>
<td>Sidney Richman</td>
<td>Professor of English</td>
<td>B.A., 1951, Los Angeles State College; M.A., 1958, Ph.D., 1960, University of California, Los Angeles</td>
</tr>
<tr>
<td>Richard D. Roberto</td>
<td>Professor of Mechanical Engineering</td>
<td>B.S., 1961, Los Angeles State College; M.S., 1966, University of California, Los Angeles</td>
</tr>
<tr>
<td>Carlos D. Robles</td>
<td>Professor of Biology</td>
<td>B.A., 1972, University of California, Santa Barbara; Ph.D., 1979, University of California, Berkeley</td>
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<tr>
<td>Martin S. Roden</td>
<td>Professor of Electrical Engineering</td>
<td>B.S.E.E., 1963, M.S.E.E., 1964, Polytechnic Institute of Brooklyn; Ph.D., 1982, Kingston University</td>
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<tr>
<td>Michael Roffe</td>
<td>Professor of Psychology</td>
<td>B.A., 1963, University of California, Los Angeles; M.A., 1965, California State College, Los Angeles; Ph.D., 1970, University of Portland</td>
</tr>
<tr>
<td>Gloria J. Romero</td>
<td>Assistant Professor of Psychology</td>
<td>B.A., 1978, California State College, Long Beach; M.A., 1980, Ph.D., 1983, University of California, Riverside</td>
</tr>
<tr>
<td>M. Richard Roseman</td>
<td>Professor of Economics and Statistics</td>
<td>B.S., 1953, University of Wisconsin; M.A., 1958, Ph.D., 1969, Harvard University</td>
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<td>Howard Rosen</td>
<td>Professor of Biology</td>
<td>B.S., 1961, M.A., 1965, Ph.D., 1968, University of California, Los Angeles</td>
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<td>Paul Rosenthal</td>
<td>Professor of Information Systems</td>
<td>B.S., 1967, University of California, Los Angeles; B.A., 1980, University of Southern California</td>
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<td>J. Murray Ross</td>
<td>Librarian and Head, Government Publications Room</td>
<td>B.A., 1956, University of British Columbia; M.L.S., 1957, University of Southern California</td>
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<tr>
<td>James M. Rosser</td>
<td>President of the University and Professor of Management</td>
<td>B.A., 1962, M.A., 1963, Ph.D., 1969, Southern Illinois University</td>
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<tr>
<td>Alice M. Roy</td>
<td>Associate Professor of English</td>
<td>B.A., 1951, Williams College; Diploma, 1956, Imperial College of Tropical Agriculture, Trinidad; Ph.D., 1961, Purdue University</td>
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<tr>
<td>Mercer Price Russell</td>
<td>Professor of Biology</td>
<td>B.A., 1948, City College of New York; M.A., 1949, Columbia University; Ph.D., 1953, Fordham University</td>
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<td>David Sandoval</td>
<td>Director, Educational Opportunity Program</td>
<td>B.A., 1975, M.A., 1987, California State University, Los Angeles</td>
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<tr>
<td>Rolando A. Santos</td>
<td>Professor of Education</td>
<td>A.B., 1955, B.S.E., 1956, Ateneo College, Philippines; M.A., 1958, Ph.D., 1961, George Peabody College for Teachers</td>
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<tr>
<td>Terry Ann Santos</td>
<td>Associate Professor of English</td>
<td>B.A., 1972, M.A., 1975, San Francisco State University; Ph.D., 1988, University of California, Los Angeles</td>
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<tr>
<td>Patricia Savich</td>
<td>Professor of Communication Disorders</td>
<td>B.S., 1967, Northern Illinois University; M.A., 1971, University of Illinois; Ph.D., 1981, University of Colorado</td>
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<td>Deborah Schaeffer</td>
<td>Associate Librarian, Public Services</td>
<td>B.A., 1977, California State College, Long Beach; M.L.S., 1979, University of California, Los Angeles</td>
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<tr>
<td>Teris K. Schery</td>
<td>Professor of Communication Disorders</td>
<td>B.A., 1965, M.A., 1966, Stanford University; Ph.D., 1980, Claremont Graduate School</td>
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<tr>
<td>William B. Schneider</td>
<td>Associate Professor of Accounting</td>
<td>B.A., 1961, Occidental College; M.B.A., 1973, University of Southern California; Ph.D., 1988, Claremont Graduate School; C.P.A., 1970, California, 1973, Wisconsin</td>
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</table>

FACULTY / 461
Beverly Joanne Schnitzer (1959) .......................... Professor of Art
B.A., 1954, University of Arizona; M.A., 1959, Los Angeles State College

Marlene Schorrner (1989) ............ Associate Professor of Education
B.S., 1978, M.S., 1984, University of Wisconsin–Milwaukee; Ph.D., 1989, University of Illinois

Mary L. Schreiber (1967) .............. Professor of Physical Education
B.A., 1963, San Francisco State College; M.S., 1967, University of Oregon; Ph.D., 1971, Ohio State University

Janet A. Seaman (1972) .............. Professor of Physical Education
B.S.E., 1964, University of Omaha; M.A., 1967, University of California, Santa Barbara; P.E.D., 1972, Indiana University; M.S., California State University, Los Angeles, 1968

Mary Beverty Oregon; Ph.D., B.S.E., State University, Los Angeles, 1951

Carl M. Selkin (1970) ............... Professor of English

Penelope Semrau (1968) .......... Associate Professor of Education
B.S.E., 1972, University of Wisconsin–Whitewater; M.A., 1980, Illinois State University; Ph.D., 1987, Ohio State University

Sandra B. Sharp (1986) .......... Assistant Professor of Biology
B.A., 1987, University of California, Berkeley; Ph.D., 1981, University of California, Los Angeles

Lilly Shen (1963) .................. Professor of Family Studies and Consumer Sciences
B.A., 1951, Soochow University, Taiwan, Republic of China; M.S., 1955, Virginia Polytechnic Institute; M.A., 1958, University of Pittsburgh

Robert Sherwood (1964) .......... Manager, Television Production

Mary Elizabeth Shuter (1968) .......... Provost and Vice President for Academic Affairs and Professor of Anthropology
B.A., 1951, University of California, Berkeley; M.A., 1958, Ph.D., 1967, University of Arizona

Charles Simmons (1968) .......... Associate Professor of Journalism
B.A., 1968, Langston University; M.S., 1970, Columbia University; J.D., 1983, Georgetown University

Doris J. Simis (1990) ............. Associate Professor of Family Studies and Consumer Sciences

Barbara Peterson Sinclair (1961) ........ Professor of Nursing
B.S., 1957, University of Maryland; M.N., 1958, Emory University; R.N., 1961, California; ANA/NACOG National Certification, 1978

Constantina Skanavis (1988) .......... Assistant Professor of Health Science
B.S., 1980, California State University, Long Beach; M.S., 1982, California State University, Long Beach; Ph.D., 1988, University of California, Los Angeles

Simeon P. Slovacek (1961) .......... Professor of Education
B.A., 1971, Syracuse University; M.S., 1974, Ph.D., 1976, Cornell University

Ludwig Sliusky (1985) .......... Professor of Information Systems

Arthur L. Smith, Jr. (1957) ........ Professor of History
B.A., 1951, Chapman College; M.A., 1952, Ph.D., 1956, University of Southern California

Benjamin W. Smith (1962) .......... Professor of Political Science
A.B., 1924, University of Texas; Ph.D., 1929, University of Texas

Joseph A. Smith (1972) .......... Professor of Sociology
B.A., 1965, M.A., 1967, University of California; Ph.D., 1972, University of Pennsylvania; Ph.D., 1983, Reiss-Davis Child Study Center

Marguerite Ann Snow (1968) .......... Assistant Professor of Education
B.A., 1977, M.A., 1979, Ph.D., 1985, University of California, Los Angeles

Donald Snyder (1975) .......... Professor of Economics and Statistics
B.A., 1966, University of New Mexico; M.A., 1967, New Mexico State University; Ph.D., 1971, Pennsylvania State University

Sidney Socolof (1960) .......... Professor of Electrical Engineering
B.S.E.E., 1956, University of Florida; M.S.E.E., 1959, University of Michigan; Ph.D., 1968, University of California, Los Angeles

Joseph E. Solodil (1960) .......... Professor of Art
A.B., 1961, Long Beach State College; M.F.A., 1963, Claremont Graduate School

Marcel Soria (1966) .......... Associate Professor of Education
B.A., 1968, M.A., 1972, University of California, Riverside; Ph.D., 1984, United States International University

Hector Soto-Perez (1971) .......... Professor of Chicano Studies
B.A., 1951, M.A., 1964, Mayor de San Jose, Mexico, D.F.; M.A., 1970, University of California, Los Angeles; Ph.D., 1973, University of Southern California

Ralph S. Spanwick (1970) .......... Professor of Accounting and
Office Systems and Business Education

Carole Srole (1964) .......... Associate Professor of History

Frieda A. Stahl (1958) .......... Professor of Physics
B.A., 1942, Hunter College; M.A., 1957, Hofstra College; Ph.D., 1968, Claremont Graduate School

Patricia H. Stanley (1968) .......... Associate Professor of Family Studies and Consumer Sciences
B.S., 1966, Wittenberg College; M.S., 1972, University of Southern Mississippi; Ed.D., 1985, University of the Pacific

Timothy Steele (1987) .......... Professor of English

Alan P. Stein (1977) .......... Librarian, Public Services

J. Leonard Steinberg (1962) .......... Professor of Education

John F. Steiner (1973) .......... Professor of Management

Milton Stern (1960) .......... Professor of Music

William L. Sterner (1966) .......... Counselor

Judith E. Stevens-Long (1971) .......... Professor of Psychology

Shirley Stretch (1967) .......... Professor of Marketing
B.S., 1971, University of Nebraska-Lincoln; M.S., 1972, Kansas State University; M.B.A., 1977, Ph.D., 1982, Ohio State University

Gary Stuart (1964) .......... Professor of English
A.B., 1940, University of California, Los Angeles; M.A., 1951, Ph.D., 1957, University of California, Berkeley

Vance Studley (1971) .......... Professor of Art
B.A., 1967, San Fernando Valley State College; M.A., 1969, University of California, Los Angeles

Gustave M. Swanson (1949) .......... Professor of Economics
B.A., 1949, M.A., 1950, California State College, Los Angeles; Ph.D., 1954, University of California, Los Angeles
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<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Institution/University</th>
<th>Year/Program</th>
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<tr>
<td>R. Carol Sweeney (1966)</td>
<td>Professor of Education</td>
<td>B.S., 1976, M.S., 1978, Pepperdine University; Ph.D., 1986, Claremont Graduate School</td>
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<td>J.J. Tebridi (1968)</td>
<td>Associate Professor of Electrical Engineering</td>
<td>B.S., 1975, Arya-Mehr University of Technology, Iran; M.S., 1978, Ph.D., 1983, Michigan State University</td>
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<td>Philip Tai (1967)</td>
<td>Associate Professor of Electrical Engineering</td>
<td>B.S., 1962, University of Kansas; M.S., 1964, University of Missouri, Rolla; Ph.D., 1971, Arizona State University</td>
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<td>Nalendra B. Tally (1977)</td>
<td>Professor of Civil Engineering</td>
<td>B.Sc., 1960, Banaras Hindu University, India; M.S., 1971, Bucknell University; Ph.D., 1976, West Virginia University</td>
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<td>Chick F. Tam (1982)</td>
<td>Associate Professor of Family Studies and Consumer Sciences</td>
<td>B.S., 1967, Chinese University of Hong Kong; M.S., 1971, Ph.D., 1974, University of California, Los Angeles</td>
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<td>Le D. Tang (1956)</td>
<td>Professor of Technology</td>
<td>B.S., 1972, National Taiwan Normal University; M.A., 1979, East Tennessee State University; Ph.D., 1981, Ohio State University</td>
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<td>Jerry D. Tate (1965)</td>
<td>Associate Professor of Psychology</td>
<td>A.B., 1958, Northwestern at Memphis; M.A., 1960, Emory University; Ph.D., 1965, Ohio State University</td>
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<td>William A. Taylor (1970)</td>
<td>Associate Vice President for Academic Affairs-Planning and Resources and Professor of Physics</td>
<td>B.A., 1961, M.A., 1963, Ph.D., 1967, University of California, Riverside</td>
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<td>Olga Termini (1972)</td>
<td>Professor of Music</td>
<td>B.Mus., 1954, M.Mus., 1957, Ph.D., 1970, University of Southern California</td>
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<td>Peter S. Terry (1967)</td>
<td>Assistant Professor of Music</td>
<td>B.A., 1980, University of Michigan; M.M., 1982, Bowling Green State University; D.M.A., 1986, University of Texas at Austin</td>
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<td>Wayne R. Tikkanen (1966)</td>
<td>Associate Professor of Chemistry</td>
<td>B.S., 1976, University of Rhode Island; M.A., 1980, Ph.D., 1982, University of California, Santa Barbara</td>
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<td>Dang Tran (1967)</td>
<td>Associate Professor of Economics and Statistics</td>
<td>License en droit, 1984, Saigon University; B.E.C., 1969, University of Western Australia; M.A., 1975, Ph.D., 1977, Syracuse University</td>
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<tr>
<td>Janet G. Tricamo (1975)</td>
<td>Director, Learning Resource Center</td>
<td>B.S., 1967, Fordham University; M.A., 1968, George Washington University; Ph.D., 1975, Claremont Graduate School</td>
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<td>Nathaniel Trives (1960)</td>
<td>Professor of Criminal Justice</td>
<td>B.S., 1968, California State College, Los Angeles; M.A., 1967, University of California, Los Angeles</td>
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<td>Carol F. Tunland (1969)</td>
<td>Assistant Professor of Family Studies and Consumer Sciences</td>
<td>B.S., 1965, North Dakota State University; M.A., 1987, California State University, Long Beach</td>
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<tr>
<td>John Turek (1969)</td>
<td>Men's Cross Country and Track and Field Coach</td>
<td>B.S., 1977, California State College, Los Angeles; M.S., 1989, California State University, Fullerton</td>
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<td>S. Winifred Utz (1969)</td>
<td>Professor of Nursing</td>
<td>B.S., 1943, M.Ed., 1958, University of Portland; M.S., 1969, University of California, Los Angeles; Ph.D., 1979, University of Southern California; R.N., 1967, California</td>
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<tr>
<td>Trina J. Valencich (1978)</td>
<td>Associate Professor of Chemistry</td>
<td>B.A., 1968, Ph.D., 1974, University of California, Irvine</td>
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<td>Velma J. Vance (1959)</td>
<td>Professor of Biology</td>
<td>B.S., 1951, College of Idaho; M.S., 1953, University of Arizona; Ph.D., 1959, University of California, Los Angeles</td>
<td></td>
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</table>
Killian P. H. Ying (1988) Associate Professor of Geography and Urban Analysis
B.S., 1979, University of Houston; M.A., 1980, Ph.D., 1985, Ohio State University

DeAnn Marie Young (1969) Professor of Nursing
B.S.N., 1960, Ohio State University; M.S.N., 1969, University of Cincinnati; R.N., 1969, California

Frank W. Young (1969) Professor of German
B.S., 1959, Utah State University; Ph.D., 1972, University of Washington

Eui-Young Yu (1968) Professor of Sociology

Robert Gene Zahary (1985) Associate Professor of Accounting
B.S., 1965, Oregon State University; M.B.A., 1972, University of Southern California; B.A., 1975, California State University, Los Angeles; Ph.D., 1982, University of Southern California; C.P.A., 1970, California

Segundo V. Zapata (1978) Associate Professor of Health Science
M.P.H., 1964, University of Michigan; DR.P.H., 1976, University of California, Los Angeles

Marlene Zepeda (1990) Assistant Professor of Family Studies and Consumer Sciences
B.A., 1972, California State College, Los Angeles; M.A., 1976, Ph.D., 1984, University of California, Los Angeles

Andrea G. Zelin (1969) Associate Professor of Special Education

Wanna M. Zinsmaster (1962) Professor of Education

Marie-Antoinette U. Zrimc (1964) Professor of French
Licence-es-Lettres, 1952, Université de Strasbourg, France; M.A., 1954, Southern Illinois University; Ph.D., 1969, Harvard University
<table>
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<tr>
<th>Name</th>
<th>Position</th>
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<tr>
<td>Butrus Abd al-Malik</td>
<td>Professor of History</td>
<td>1969-1990</td>
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<tr>
<td>Leonard Adams</td>
<td>Professor of Physical Education</td>
<td>1961-1983</td>
</tr>
<tr>
<td>Gerhard Albersheim</td>
<td>Professor of Music</td>
<td>1950-1970</td>
</tr>
<tr>
<td>Sidney P. Albert</td>
<td>Professor of Philosophy</td>
<td>1956-1979</td>
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<tr>
<td>Laird B. Allison</td>
<td>Professor of Management</td>
<td>1956-1963</td>
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<td>Daniel Amneus</td>
<td>Professor of English</td>
<td>1950-1966</td>
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<td>Constance E. Amaden</td>
<td>Professor of English</td>
<td>1961-1984</td>
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<tr>
<td>Esther Andreas Anderson</td>
<td>Professor of Music</td>
<td>1955-1973</td>
</tr>
<tr>
<td>Anthony J. Andreoli</td>
<td>Professor of Biochemistry</td>
<td>1955-1989</td>
</tr>
<tr>
<td>Robert F. Michael Atlee</td>
<td>Professor of Spanish</td>
<td>1965-1966</td>
</tr>
<tr>
<td>John M. Austin</td>
<td>Professor of Education</td>
<td>1960-1982</td>
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<tr>
<td>Cornelia Balogh</td>
<td>Associate Librarian and Science and Technology Librarian</td>
<td>1962-1969</td>
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<tr>
<td>Mary A. Bany</td>
<td>Professor of Education</td>
<td>1955-1974</td>
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<tr>
<td>Evelyn Malin Barclay</td>
<td>Professor of Nursing</td>
<td>1957-1969</td>
</tr>
<tr>
<td>Francis H. Baxter</td>
<td>Professor of Music</td>
<td>1950-1978</td>
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<tr>
<td>Walter S. Beaver</td>
<td>Professor of Theatre Arts</td>
<td>1956-1984</td>
</tr>
<tr>
<td>Charles E. Beckwith</td>
<td>Professor of English</td>
<td>1957-1990</td>
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<td>Eugene Benedetti</td>
<td>Professor of Education</td>
<td>1950-1980</td>
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<td>Robert E. Benoit</td>
<td>Professor of Education</td>
<td>1965-1990</td>
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<tr>
<td>Philip D. Bergfield</td>
<td>Professor of Finance and Business Law</td>
<td>1966-1982</td>
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<td>Isaac Berman</td>
<td>Professor of Education</td>
<td>1965-1988</td>
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<td>V. Patricia Beyer</td>
<td>Professor of Education</td>
<td>1973-1990</td>
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<tr>
<td>Nancy J. Billett</td>
<td>Professor of Business Education and Office Administration</td>
<td>1975-1985</td>
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<td>David Bilovsky</td>
<td>Professor of Education</td>
<td>1956-1979</td>
</tr>
<tr>
<td>Donald A. Bird</td>
<td>Professor of English</td>
<td>1956-1977</td>
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<tr>
<td>Henry Etta Brown Blackmon</td>
<td>Professor of Nursing</td>
<td>1966-1986</td>
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<tr>
<td>Robert E. Blackmon</td>
<td>Professor of Journalism</td>
<td>1960-1986</td>
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<td>Miriam Blomquist</td>
<td>Professor of Nursing</td>
<td>1966-1980</td>
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<td>Arline Bock</td>
<td>Librarian</td>
<td>1961-1977</td>
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<td>Irvin Borders</td>
<td>Professor of Journalism</td>
<td>1951-1971</td>
</tr>
<tr>
<td>Amy G. Brainard</td>
<td>Professor of Art</td>
<td>1961-1972</td>
</tr>
<tr>
<td>Robert V. Brass</td>
<td>Student Affairs Officer</td>
<td>1960-1983</td>
</tr>
<tr>
<td>William H. Bright</td>
<td>Professor of Economics</td>
<td>1950-1980</td>
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<tr>
<td>Allen P. Bristow</td>
<td>Professor of Criminal Justice</td>
<td>1969-1983</td>
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<tr>
<td>Helen Brocklehurst</td>
<td>Counselor and Associate Professor of Education</td>
<td>1960-1971</td>
</tr>
<tr>
<td>Richard K. Brome</td>
<td>Senior Assistant Librarian</td>
<td>1962-1987</td>
</tr>
<tr>
<td>Winona N. Brooks</td>
<td>Professor of Home Economics</td>
<td>1969-1983</td>
</tr>
<tr>
<td>John C. Bushman</td>
<td>Professor of English</td>
<td>1953-1976</td>
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<tr>
<td>H. Randall Butler</td>
<td>Associate University Librarian</td>
<td>1954-1985</td>
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<tr>
<td>Robert Bascom Callahan</td>
<td>Professor of Political Science</td>
<td>1960-1983</td>
</tr>
<tr>
<td>Richard G. Cannicott</td>
<td>Professor of Psychology</td>
<td>1959-1983</td>
</tr>
<tr>
<td>Samuel M. Caplin</td>
<td>Professor of Botany</td>
<td>1960-1980</td>
</tr>
<tr>
<td>Dan Cappa</td>
<td>Professor of Education</td>
<td>1959-1963</td>
</tr>
<tr>
<td>Philip L. Carter</td>
<td>Associate Professor of Social Work</td>
<td>1970-1986</td>
</tr>
<tr>
<td>Malide O. Castells</td>
<td>Professor of Spanish</td>
<td>1969-1986</td>
</tr>
<tr>
<td>Robert C. Cairns</td>
<td>Professor of History</td>
<td>1950-1972</td>
</tr>
<tr>
<td>Emily C. Chang</td>
<td>Professor of Accounting</td>
<td>1959-1963</td>
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<tr>
<td>Seymour L. Chapin</td>
<td>Professor of History</td>
<td>1962-1986</td>
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<tr>
<td>Doris C. Ching</td>
<td>Professor of Education</td>
<td>1962-1991</td>
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<tr>
<td>Charles L. Clark</td>
<td>Professor of Mathematics</td>
<td>1967-1981</td>
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<tr>
<td>Earl Kennedy Cobb</td>
<td>Professor of Accounting</td>
<td>1958-1987</td>
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<tr>
<td>Harry C. Coffin</td>
<td>Professor of Geography</td>
<td>1960-1980</td>
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<tr>
<td>Irving J. Cohen</td>
<td>Associate Librarian</td>
<td>1959-1986</td>
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<tr>
<td>Ivon P. Colburn</td>
<td>Professor of Geology</td>
<td>1964-1990</td>
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<td>John P. Comish</td>
<td>Professor of English</td>
<td>1954-1982</td>
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<td>Penis H. Cowan</td>
<td>Professor of Education</td>
<td>1956-1974</td>
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<tr>
<td>John R. Cox</td>
<td>Professor of Finance</td>
<td>1955-1983</td>
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<td>Clifford J. Craft</td>
<td>Professor of Accounting</td>
<td>1977-1987</td>
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<tr>
<td>Leslie Cromwell</td>
<td>Dean, School of Engineering and Professor of Electrical Engineering</td>
<td>1953-1960</td>
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<td>Morton J. Cronin</td>
<td>Professor of English</td>
<td>1955-1987</td>
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<td>Jack B. Cullen</td>
<td>Professor of Speech Communication</td>
<td>1955-1982</td>
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<td>John A. Dahl</td>
<td>Professor of Education</td>
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<td>Saralyn R. Daly</td>
<td>Professor of English</td>
<td>1962-1988</td>
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<td>Bruce Dayton</td>
<td>Professor of Physics</td>
<td>1965-1980</td>
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<td>Louis C. De Armond</td>
<td>Professor of History</td>
<td>1950-1979</td>
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<td>Cameron S. Deeds</td>
<td>Professor of Physical Education</td>
<td>1951-1985</td>
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<td>Earl W. Denny</td>
<td>Associate Dean, School of Education and Professor of Education</td>
<td>1959-1983</td>
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<td>Harry Diamond</td>
<td>Professor of Criminal Justice</td>
<td>1960-1979</td>
</tr>
<tr>
<td>Robert J. Diamond</td>
<td>Professor of Mathematics</td>
<td>1958-1981</td>
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<td>Solomon Diamond</td>
<td>Professor of Psychology</td>
<td>1949-1971</td>
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<td>Geraldine Dimondstein</td>
<td>Professor of Education</td>
<td>1972-1989</td>
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<td>Wachtang Djobadze</td>
<td>Professor of Art</td>
<td>1968-1988</td>
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<td>Cortland C. Doan</td>
<td>Professor of Technology</td>
<td>1965-1989</td>
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<td>Clifford Dobson</td>
<td>Professor of Industrial Studies</td>
<td>1956-1973</td>
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<tr>
<td>Robert L. Douglass</td>
<td>Director, Associated Clinics and Professor of Communication Disorders</td>
<td>1951-1967</td>
</tr>
<tr>
<td>James G. Dunkelberg</td>
<td>Professor of Physical Education</td>
<td>1958-1967</td>
</tr>
<tr>
<td>Leonard Edmondson</td>
<td>Professor of Art</td>
<td>1964-1986</td>
</tr>
</tbody>
</table>
Alfred E. Ehrhardt (1960-1975) .... Secretary of the University and
Professor of English

Baron C. Elliot (1950-1978) .... Professor of Health and Safety Studies

Patricia Wright Ellis (1970-1986) .... Professor of Family Studies
and Consumer Sciences

Ray Engelke (1964-1983) .... Associate Librarian

Robert H. Ewald (1957-1986) .... Professor of Anthropology

Raymond E. Fausel (1952-1990) .... Professor of Technology

Lloyd N. Ferguson (1965-1986) .... Professor of Chemistry

Otto W. Fick (1955-1982) .... Professor of English

Arlene H. Fisher (1956-1980) .... Professor of Physical Education

Robert J. Forbes (1956-1978) .... Professor of Education

Robert M. Fowells (1962-1989) .... Professor of Music

George N. Francis (1949-1976) .... Professor of Accounting

Alfred H. Fritz (1971-1988) .... Professor of Mechanical Engineering

Norman Fruman (1959-1980) .... Professor of English

Louis G. Gardener (1950-1981) .... Professor of Theatre Arts

Jewel Garner (1961-1982) .... Professor of Education

Vincent A. Giroux (1957-1984) .... Professor of Electrical Engineering

Ben C. Grujik (1956-1983) .... Dean, School of Fine and Applied Arts
and Professor of Health and Safety Studies

Herbert Goldenberg (1955-1986) .... Professor of Psychology

Leonard Gordon (1962-1987) .... Associate Librarian

Mary Gornty (1952-1983) .... Librarian

G. Douglas Gourley (1957-1977) .... Professor of Criminal Justice

Gloria S. Graham (1969-1985) .... Professor of Education

Evelyn B. Granville (1967-1984) .... Professor of Mathematics

Albert D. Graves (1951-1963) .... President of the University

Thelma Graves (1951-1963) .... Assistant Professor of Home Economics

John A. Greenlee (1965-1979) .... President of the University

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Celeste Griffith (1954-1978) .... Professor of Music

Michael F. Grisafe (1956-1975) .... Professor of Accounting

Edward O. Guerrant (1954-1980) .... Professor of History

Keith E. Gummers (1956-1980) .... Professor of Industrial Studies

George A. Gustafson (1970-1983) .... Professor of Accounting

Jessie C. Gustafson (1952-1967) .... Professor of Business Education

Byron Guyer (1955-1978) .... Professor of English

Ira Timson Gwinn (1966-1972) .... Professor of Education

Martha L. Hackman (1960-1977) .... Librarian

Donald J. Hager (1957-1991) .... Professor of Sociology

Elise S. Hahn (1963-1977) .... Professor of Speech

Robert O. Hahn (1956-1980) .... Professor of Education

Harold D. Hall (1956-1980) .... Professor of Education

Lyle Hanna (1960-1974) .... Professor of Education

Louis A. Hansen (1956-1980) .... Professor of Music

William R. Hanson (1960-1987) .... Professor of Biology

John Haralson (1951-1980) .... Professor of Psychology

James V. Harvey (1955-1971) .... Professor of Botany and Nature Study

Caro C. Hatcher (1955-1972) .... Professor of Education

Audrey Graff Hawk (1960-1981) .... Associate Librarian

Leonard F. Heath (1956-1986) .... Professor of Art

Leonard W. Hein (1956-1983) .... Professor of Accounting

Barbara O. Henkel (1956-1981) .... Professor of Health and Safety Studies

Burton Henry (1952-1979) .... Professor of Education

Jack C. Heppe (1949-1977) .... Director of Campus Development

Frank J. Hill (1949-1961) .... Professor of Finance

Anthony Hillbruner (1954-1980) .... Professor of Speech Communication

Lester Hirsch (1960-1966) .... Professor of Physics

Patricia M. Hodges (1970-1986) .... Professor of Psychology

Virginia Hoffman (1952-1967) .... Professor of Art

John L. Houk (1971-1983) .... Professor of Political Science

Ke Ting Hsia (1963-1989) .... Professor of Economics and Statistics

Mary W. Huber (1952-1971) .... Professor of Speech

Donald E. Hudson (1964-1983) .... Professor of Physics

Roland D. Hutchinson (1950-1983) .... Associate Professor of Psychology

David Jacobsohn (1960-1983) .... Professor of Health and Safety Studies

Sigmund Jaffe (1958-1986) .... Professor of Chemistry

Lois V. Johnson (1950-1978) .... Professor of Education

Stewart A. Johnston (1953-1977) .... Professor of Chemistry

John O. Jones (1964-1991) .... Professor of Education

Ernest R. Kamm (1966-1990) .... Professor of Criminal Justice

 Eloise M. King (1960-1988) .... Professor of Nursing

Wanda L. King (1965-1980) .... Professor of Nursing

Donald B. Kintner (1957-1980) .... Professor of Education

Arthur J. Kirsch (1961-1979) .... Professor of Economics

Ralph E. Klinepeter (1959-1980) .... Professor of Education

William A. Knipe (1970-1982) .... Professor of Marketing

Aaron Krieger (1956-1986) .... Associate Professor of Education

David Laird (1958-1990) .... Professor of English

John LaMonica (1956-1990) .... Professor of Industrial Studies

Roderick Langston (1952-1982) .... Professor of Education

Jean Utley Lehman (1963-1974) .... Professor of Education

Vernon Leidig (1950-1982) .... Professor of Music

John Leiman (1967-1983) .... Associate Professor of Psychology

Marilynn A. Lemon (1966-1988) .... Professor of Nursing

Robert T. Lewis (1952-1982) .... Professor of Psychology

Harold E. Lionetti (1956-1982) .... Professor of Spanish

William E. Lloyd (1956-1981) .... Dean, School of Business and Economics and Professor of Management

Donald G. Malcolm (1972-1981) .... Dean, School of Business and Economics and Professor of Management
Mary Alice Pears (1952-1972) ................................................ Librarian
Dorothy R. Peckham (1960-1972) ........................................ Professor of Education
Esther Penchel (1948-1973) .................................................. Professor of Sociology
Joseph G. Phelan (1959-1983) ............................................ Professor of Psychology
Earl O. Phillips (1966-1986) ................................................ Professor of History
Kenneth Phillips (1971-1986) .............................................. Professor of Technology
William G. Plunkett (1965-1982) ........................................ Professor of Civil Engineering
Morris Poian (1955-1968) .................................................. University Librarian
Lamar Price (1964-1966) ..................................................... Professor of Education
Gerald Prindiville (1949-1976) ............................................. Professor of Education
Dan R. Rankin (1960-1977) ................................................ Professor of Mechanical Engineering
Gerald R. Rasmussen (1964-1989) ....................................... Professor of Education
John W. Rathbun (1956-1990) ............................................. Professor of English
J. C. Ray (1957-1989) .......................................................... Professor of Accounting
Rashed E. Razouk (1972-1979) ............................................ Professor of Chemistry
Warren W. Reeves (1950-1982) .......................................... Professor of Physical Education
Fred M. Reinman (1967-1989) ............................................. Professor of Anthropology
Morton J. Renshaw (1950-1973) .......................................... Professor of Education
Lois M. Rhinesperger (1959-1981) ...................................... Professor of Home Economics
Fred G. Rhodes (1954-1980) ................................................ Professor of Education
Ann M. Richardson (1959-1960) .......................................... Professor of Psychology
James F. Richmond (1955-1970) .......................................... Professor of Geology
Edythe Rodríguez (1952-1983) ............................................ Associate Professor of Education
George M. Rolling (1959-1968) ......................................... Associate Librarian and
Humanities/Social Sciences Librarian
Julian B. Roth (1956-1980) .................................................. Professor of Education
Paul K. Rowan (1956-1990) ................................................ Professor of Sociology
Hudson Royshier (1954-1975) ............................................. Professor of Art
Thomas A. Rusch (1959-1980) .......................................... Professor of Political Science
Clarence K. Sandelin (1949-1983) ...................................... Professor of English
Ake Sandler (1949-1980) ..................................................... Professor of Political Science
Pauline E. Schatz (1969-1983) ............................................ Professor of Home Economics
Ben F. Scherer (1963-1986) .............................................. Professor of Safety Studies
Leonard I. Schneider (1958-1978) .................................... Professor of Psychology
Delwyn G. Schubert (1950-1968) ....................................... Professor of Education
Inez Schubert (1955-1983) ................................................ Professor of Music
Howard Schug (1958-1971) .............................................. Professor of Electrical Engineering
Leon Schwartz (1959-1987) ................................................ Professor of French
Burton M. Seidler (1965-1990) ........................................... Professor of Physical Education
Randolph G. Service (1957-1980) ...................................... Professor of Education
Joseph T. Seto (1960-1980) ................................................ Professor of Microbiology
Gordon B. Severance (1956-1980) ..................................... Professor of Business Law
Fred J. Shanley (1965-1990) ............................................. Professor of Sociology
Carleton B. Shay (1962-1989) ............................................ Professor of Education
Gunjit Sikand (1958-1981) ................................................ Professor of Civil Engineering
Ronald H. Silverman (1955-1988) ...................................... Professor of Art
Robert H. Simmons (1962-1986) ....................................... Professor of Political Science
William B. Simpson (1958-1983) ...................................... Professor of Economics
Patricia Bates Simun (1966-1991) ..................................... Professor of Education
Katherine Ststrom (1956-1971) ........................................ Assistant Professor of Education
Carol J. Smallenburg (1950–1985) ...................... Professor of Education
Bernice B. Smith (1956–1979) ...................... Associate Professor of Education
Marjorie M. Smith (1959–1979) ...................... Professor of Theatre Arts
Keith D. Snyder (1953–1976) ...................... Professor of Music
Bernard Somers (1960–1983) ...................... Professor of Psychology
Gerald F. Sorensen (1958–1985) ........... Professor of Economics
Louis W. Steams (1954–1980) ...................... Professor of Biology
Kurt L. Steckmesser (1960–1985) ........... Professor of History
Virgil H. Stevens (1963–1985) ...................... Associate Professor of Political Science
Richard L. Stone (1971–1989) ...................... Professor of Anthropology
Harold Storch (1955–1987) ...................... Professor of Electrical Engineering
Martin L. Stout (1960–1990) ...................... Professor of Geology
Robert Strassburger (1971–1983) ...................... Professor of Music
Richard M. Straw (1955–1981) ...................... Professor of Biology
Kenneth S. Strobel (1955–1975) ...................... Associate Director of Photographic Services, Audio–Visual Center
Joseph Stubbins (1959–1980) ...................... Professor of Education
Leon Surmelian (1961–1974) ...................... Associate Professor of English
Kenneth N. Sweetnam (1957–1983) ...................... Director, Instructional Media Services and Professor of Industrial Studies
Ellenore C. Takeda (1959–1978) ...................... Librarian
Lydia M. Takeshita (1955–1969) ...................... Professor of Art
Elfleda J. Tate (1966–1983) ...................... Professor of Education
Norwood Teague (1958–1977) ...................... Professor of Industrial Studies
Annette Tessier (1969–1986) ...................... Professor of Education
Ralph Thomlinson (1969–1988) ...................... Professor of Sociology
Alice C. Thompson (1960–1979) ...................... Professor of Psychology
Ross D. F. Thompson (1959–1980) ...................... Professor of Physics
Raine F. Thorup (1964–1979) ...................... Professor of Home Economics
Harry K. Thrasher (1966–1978) ...................... Professor of Education
Albert A. Tillman (1956–1984) ...................... Professor of Recreation
Maurine Timmerman (1950–1974) ...................... Professor of Music
William S. Ting (1969–1979) ...................... Professor of Geography
Roy T. Tozier (1962–1965) ...................... Professor of Education
Alvin E. Tuohino (1956–1976) ...................... Professor of Accounting
Eleonor M. Tweedle (1968–1990) ...................... Professor of English
Philip D. Vairo (1973–1982) ...................... Dean, School of Education and Professor of Education
Maryo Van Deman (1960–1977) ...................... Professor of Music
Marvin E. Wagstaff (1952–1976) ...................... Professor of Education
H. Jean Waldrop (1962–1986) ...................... Professor of Marketing
Harry V. Wall (1963–1990) ...................... Professor of Education
Edwin Wandt (1954–1983) ...................... Professor of Education
Beverly Warner (1953–1975) ...................... Professor of Physical Education
Lee J. Wexler (1959–1986) ...................... Professor of Art
Patricia M. White (1962–1982) ...................... Professor of Physical Education
Patti W. Schlestett Wiggins (1956–1990) ...................... Professor of Music
Howard E. Wilkening (1948–1974) ...................... Professor of Psychology
George W. Willott (1950–1977) ...................... Professor of Recreation
Eleanor C. Wilson (1956–1970) ...................... Assistant Professor of Education
James B. Wilson (1948–1976) ...................... Professor of Philosophy
Hubert C. Winkler (1968–1979) ...................... Professor of Physics
Jeanette R. Witucki (1967–1986) ...................... Professor of Anthropology
Emil Wroblicky (1956–1987) ...................... Professor of Physical Education
Kenneth Wynsma (1962–1980) ...................... Associate Professor of Art
Paul M. Zall (1957–1980) ...................... Professor of English
Kenneth Zimmer (1961–1963) ...................... Professor of Business Education
Wayne S. Zimmerman (1961–1980) ...................... Professor, Counseling Center
Jay Ziskin (1961–1979) ...................... Professor, Counseling Center
The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became The California State University and Colleges (CSUC) and in 1982 the system became The California State University (CSU). Today, all 20 campuses have the title “university.”

The oldest campus—San Jose State University—was founded as a normal school in 1857 and became the first institution of public higher education in California. The newest campus—California State University, San Marcos—began admitting students in Fall 1990.

Responsibility for The California State University is vested in the Board of Trustees, whose members are appointed by the Governor. The Trustees appoint the Chancellor, who is the chief executive officer of the system, and the Presidents, who are the chief executive officers on the respective campuses.

The Trustees, the Chancellor, and the Presidents develop system-wide policy, with actual implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of The California State University, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the Chancellor.

Academic excellence has been achieved by The California State University through a distinguished faculty, whose primary responsibility is superior teaching. Although each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All of the campuses require, for graduation with the baccalaureate, a basic program of “General Education Breadth Requirements” regardless of the type of bachelor’s degree or major field selected by the student.

The CSU offers more than 1,500 bachelor’s and master’s degree programs in some 200 subject areas. Many of these programs are offered so that students can complete all upper division and graduate requirements by part-time late afternoon and evening study. In addition, a variety of teaching and school service credential programs are available. A limited number of doctoral degrees are offered jointly with the University of California and with private universities in California.

System enrollments include more than 360,000 students, who are taught by a faculty of 20,500. Last year the system awarded more than 50 percent of the bachelor’s degrees and 30 percent of the master’s degrees granted in California. More than 1.2 million persons have been graduated from the nineteen campuses since 1960.
Officials of The California State University

OFFICE OF THE CHANCELLOR

The California State University
400 Golden Shore
Long Beach, CA 90802-4275
(213) 590-5506

Dr. Barry Munitz .......................... Chancellor
Dr. Herbert L. Carter ......................... Executive Vice Chancellor
Dr. Lee R. Kerschner ...................... Vice Chancellor, Academic Affairs
Mr. D. Dale Hanner ....................... Vice Chancellor, Business Affairs
Dr. Caesar J. Naples ............... Vice Chancellor, Faculty/Staff Relations
Mr. Bruce M. Richardson .......... Acting General Counsel
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Governor of California
State Capitol
Sacramento, CA 95814

The Honorable Leo T. McCarthy
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Sacramento, CA 95814

The Honorable Willie L. Brown, Jr.
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State Capitol
Sacramento, CA 95814

The Honorable Louis "Bill" Honig
State Superintendent of Public Instruction
721 Capitol Mall
Sacramento, CA 95814

Dr. Barry Munitz
Chancellor of The California State University
400 Golden Shore
Long Beach, CA 90802-4275

OFFICERS OF THE TRUSTEES

Governor Pete Wilson .................. President
William D. Campbell ................... Chair
Anthony M. Vitti ....................... Vice Chair
Chancellor Barry Munitz .......... Secretary-Treasurer

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Appointments are made for a term of eight years, except for a student trustee, alumni trustee, and faculty trustee, whose terms are for two years. Terms expire in the year in parentheses. Names are listed in order of appointment to the board.

Dr. Claudia H. Hampton .................. (1994)
Mr. Dean S. Lesher ....................... (1993)
Mr. Roland E. Arnall ..................... (1991)
Ms. Marian Bagdasarian .............. (1996)
Mrs. Marianthi Lansdale ............... (1993)
John E. Kashiwabara, M.D. ......... (1994)
Ms. Martha C. Falgatter ............... (1995)
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Mr. James H. Gray ....................... (1998)
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Mr. Jim Considine, Jr. ............... (1992)

Correspondence with trustees should be sent:
c/o Trustees Secretariat
The California State University
400 Golden Shore, Suite 322
Long Beach, CA 90802-4275
<table>
<thead>
<tr>
<th>Campus Name</th>
<th>Address</th>
<th>City, State Zip Code</th>
<th>President Name</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>California State University, Bakersfield</td>
<td>9001 Stockdale Highway</td>
<td>Bakersfield, CA 93311-1099</td>
<td>Tomás A. Aracneia, President</td>
<td>(805) 864-2011</td>
</tr>
<tr>
<td>California State University, Chico</td>
<td>First and Normal Streets</td>
<td>Chico, CA 95929</td>
<td>Robin S. Wilson, President</td>
<td>(916) 898-6116</td>
</tr>
<tr>
<td>California State University, Dominguez Hills</td>
<td>1000 East Victoria Street</td>
<td>Carson, CA 90747</td>
<td>Robert C. Datweiler, President</td>
<td>(213) 516-3300</td>
</tr>
<tr>
<td>California State University, Fresno</td>
<td>5241 North Maple Avenue</td>
<td>Fresno, CA 93740</td>
<td>John Welty, President</td>
<td>(209) 278-4240</td>
</tr>
<tr>
<td>California State University, Fullerton</td>
<td>800 North State College Boulevard</td>
<td>Fullerton, CA 92634</td>
<td>Milton A. Gordon, President</td>
<td>(714) 773-2011</td>
</tr>
<tr>
<td>California State University, Hayward</td>
<td>Hayward, CA 94542</td>
<td>Hayward, CA 94542</td>
<td>Norma S. Rees, President</td>
<td>(415) 881-3000</td>
</tr>
<tr>
<td>Humboldt State University</td>
<td>Arcata, CA 95521</td>
<td>Arcata, CA 95521</td>
<td>Alistair W. McCrone, President</td>
<td>(707) 826-3011</td>
</tr>
<tr>
<td>California State University, Long Beach</td>
<td>1250 Bellflower Boulevard</td>
<td>Long Beach, CA 90840</td>
<td>Curtis L. McCray, President</td>
<td>(213) 985-4111</td>
</tr>
<tr>
<td>California State University, Los Angeles</td>
<td>5151 State University Drive</td>
<td>Los Angeles, CA 90032</td>
<td>James M. Rosser, President</td>
<td>(213) 343-3000</td>
</tr>
<tr>
<td>California State University, Northridge</td>
<td>1811 N. Northoff Street</td>
<td>Northridge, CA 91330</td>
<td>James W. Cleary, President</td>
<td>(818) 885-1200</td>
</tr>
<tr>
<td>California State Polytechnic University, Pomona</td>
<td>3801 West Temple Avenue</td>
<td>Pomona, CA 91768</td>
<td>Bob H. Suzuki, President</td>
<td>(714) 869-7659</td>
</tr>
<tr>
<td>California State University, Sacramento</td>
<td>6000 J Street</td>
<td>Sacramento, CA 95819</td>
<td>Donald R. Gerth, President</td>
<td>(916) 278-6011</td>
</tr>
<tr>
<td>California State University, San Bernardino</td>
<td>5500 University Parkway</td>
<td>San Bernardino, CA 92407</td>
<td>Anthony E. Evans, President</td>
<td>(714) 880-5000</td>
</tr>
<tr>
<td>San Diego State University</td>
<td>5300 Campanile Drive</td>
<td>San Diego, CA 92182</td>
<td>Thomas B. Day, President</td>
<td>(619) 594-5000</td>
</tr>
<tr>
<td>San Francisco State University</td>
<td>1600 Holloway Avenue</td>
<td>San Francisco, CA 94132</td>
<td>Robert A. Corrigan, President</td>
<td>(415) 338-1111</td>
</tr>
<tr>
<td>San Jose State University</td>
<td>One Washington Square</td>
<td>San Jose, CA 95192</td>
<td>Gail Fullerton, President</td>
<td>(408) 924-1000</td>
</tr>
<tr>
<td>California Polytechnic State University, San Luis Obispo</td>
<td>820 West Los Vallecitos Blvd.</td>
<td>San Marcos, CA 92069</td>
<td>Bill W. Stacy, President</td>
<td>(619) 471-4119</td>
</tr>
<tr>
<td>Sonoma State University</td>
<td>1801 East Cotati Avenue</td>
<td>Rohnert Park, CA 94928</td>
<td>David W. Benson, President</td>
<td>(707) 664-2880</td>
</tr>
<tr>
<td>California State University, Stanislaus</td>
<td>800 West Monte Vista Avenue</td>
<td>Turlock, CA 95380</td>
<td>John W. Moore, President</td>
<td>(209) 667-3122</td>
</tr>
</tbody>
</table>
APPENDICES

Appendix A  Eligibility Index for Admission
Appendix B  Residence Determination for Fee Purposes
Appendix C  Average Annual Costs
Appendix D  Student Discipline
Appendix E  Privacy Rights of Students
Appendix F  Financial Assistance
Appendix G  Establishing a Student Body Fee
Appendix H  Freeway Map
**APPENDIX A**

**ELIGIBILITY INDEX**

The following table is used in determining the eligibility of graduates of California high schools or California legal residents for admission as a freshman at a California State University campus. For an explanation of how the eligibility index works, see Eligibility Index in the Admission chapter. Applicants whose grade point average is 3.0 or higher (3.6 for nonresidents) are eligible for admission and exempted from the test requirement, but are urged to take the SAT or ACT because all campuses use the test results for advising and placement purposes. Applicants whose grade point average is lower than 2.0 are not eligible.

The minimum eligibility index for California residents and California high school graduates is 2800 using the SAT and 694 using the ACT score. If you neither graduated from a California high school nor are a legal resident of California for tuition purposes, you need a minimum index of 3402 (SAT) or 842 (ACT). The method used to compute the index is explained below:

- **SAT**: Multiply the grade point average by 800 and add it to the total SAT score.
- **ACT**: Multiply the grade point average by 200 and add it to 10 times the composite ACT score.

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<th>GPA</th>
<th>SAT Score</th>
<th>ACT Score</th>
<th>GPA</th>
<th>SAT Score</th>
<th>ACT Score</th>
<th>GPA</th>
<th>SAT Score</th>
<th>ACT Score</th>
<th>GPA</th>
<th>SAT Score</th>
<th>ACT Score</th>
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<td>14</td>
<td>570</td>
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<td>18</td>
<td>740</td>
<td>2.37</td>
<td>22</td>
<td>910</td>
<td>2.16</td>
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<tr>
<td>2.99</td>
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<td>580</td>
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<td>19</td>
<td>760</td>
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<td>2.98</td>
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<td>2.77</td>
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Below 2.00 does not qualify for regular admission.
Determination of Residence for Nonresident Tuition Purposes

The campus Admissions Office determines the residence status of all new and returning students for nonresident tuition purposes. Responses on the application for admission and, if necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish a right to classification as a California resident will be classified as a nonresident.

The following statement of the rules regarding residence determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by The California State University is found in Education Code Sections 68000-68090, 68121, 68123, 68124, 89705-89707.5, and 90408, and in Title 5 of the California Code of Regulations, Sections 41900-41912. A copy of the statutes and regulations is available for inspection at the campus Admissions Office.

Legal residence may be established by an adult who is physically present in the state and who, at the same time, intends to make California his or her permanent home. Steps must be taken at least one year prior to the residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residence. The steps necessary to show California residence intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California; filing resident California state income tax forms on total income; ownership of residential property or continuous occupancy or renting of an apartment on a lease basis where one’s permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator’s license; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service, etc.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of the student’s stay in California.

In general, the unmarried minor (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of a minor cannot be changed by the minor or the minor’s guardian, so long as the minor’s parents are living.

A married person may establish his or her residence independent of his or her spouse.

An alien may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor alien derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required by law to complete a supplemental questionnaire about financial independence.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a “resident student” for tuition purposes. A residence determination date is set for each academic term and is the date from which residence is determined for that term. The residence determination dates are:

**Quarter Term Campuses**

- Fall Quarter: September 20
- Winter Quarter: January 5
- Spring Quarter: April 1
- Summer Quarter: July 1

**Semester Term Campuses**

- Fall Semester (Stanislaus only): September 20
- Winter Semester: January 5
- Spring Semester: January 25

Questions regarding residence determination dates should be directed to the campus Admissions Office which can give you the residence determination date for the quarter for which you are registering.

There are several exceptions from nonresident tuition, including:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student, who remained, was still a minor. When the minor reaches age 18, the exception continues for one year to enable the student to qualify as a resident student.

2. Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date, and entirely self-supporting for that period of time.

3. Persons below the age of 19 who have lived with and been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year.

4. Dependent children and spouses of persons in active military service stationed in California on the residence determination date. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year. The exception, once attained, is not affected by retirement or transfer of the military person outside the state.

5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.

6. Dependent children of a California resident who has been a California resident for the most recent year. This exception continues until the student has resided in the state the minimum time necessary to become a resident, so long as the student has maintained continuous attendance at an institution.

7. Certain credentialed, full-time employees of California school districts.

8. Full-time California State University employees and their children and spouses; state employees assigned to work outside the state and their children and spouses. This exception applies...
only for the minimum time required for the student to obtain California residence and maintain that residence for a year.


10. Children of deceased public law enforcement or fire suppression employees, who were California residents, and who were killed in the course of law enforcement or fire suppression duties.

Any student, following a final decision on campus on his or her residence classification, only may make written appeal to:

The California State University
Office of General Counsel
400 Golden Shore
Long Beach, CA 90802-4275

within 120 calendar days of notification of the final decision on campus of the classification. The Office of General Counsel may make a decision on the issue, or it may send the matter back to the campus for further review.

APPENDIX C

AVERAGE ANNUAL COSTS AND SOURCES OF FUNDS PER FULL-TIME EQUIVALENT STUDENT

The 20 campuses and the Chancellor's Office of The California State University are financed primarily through funding provided by the taxpayers of California. The total state appropriation to the CSU for 1990-91, including capital outlay and employee compensation increases, is $1,904,029,000. The total cost of education for CSU, however, is $2,111,513,409 which provides support for a projected 274,500 full-time equivalent (FTE) students.

The total cost of education in the CSU is defined as the expenditures for current operations, including payments made to the students in the form of financial aid, and all fully reimbursed programs contained in State appropriations, but excluding capital outlay appropriations. The average cost of education is determined by dividing the total cost by the total FTEs. The average cost is further differentiated into three categories: State Support (the State appropriation, excluding capital outlay), Student Fee Support, and Support from Other Sources (including federal funds).

Thus, excluding costs that relate to capital outlay (i.e., building amortization), the average cost of education per FTE student is $7,692. Of this amount, the average student fee support per FTE is $1,183. The calculation for this latter amount includes the amount paid by nonresident students.

SOURCE OF FUNDS AND AVERAGE COSTS FOR 1990/91 CSU BUDGET
(PROJECTED ENROLLMENT: 274,500 FTE)

<table>
<thead>
<tr>
<th>Amount</th>
<th>Average Cost per Student (FTE)</th>
<th>Percentage</th>
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<tr>
<td>Total Cost of Educationb</td>
<td>$2,111,513,409</td>
<td>$7,692</td>
</tr>
<tr>
<td>-State Appropriationc</td>
<td>1,691,403,000</td>
<td>6,612</td>
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<tr>
<td>-Student Fee Supportd</td>
<td>304,672,787</td>
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<tr>
<td>-Support from Other Sources</td>
<td>95,437,622</td>
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</table>

* For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load equivalent to 15 units per term. Some students enroll for more than 15 units; some students enroll for fewer than 15 units.

The total cost of education does not include the amount related to lottery and the capital investment of the CSU. The estimated replacement cost of all the system's permanent facilities and equipment on the 20 campuses is currently valued at $6.5 billion, excluding the cost of land.

Students classified incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the California Code of Regulations. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the Admissions Office. Applications for a change in classification with respect to a previous quarter are not accepted.

The student is cautioned that this summation of rules regarding residence determination is by no means a complete explanation of their meaning. The student should also note that changes may have been made in the rate of nonresident tuition, in the statutes, and in the regulations between the time this catalog is published and the relevant residence determination date.
APPENDIX D

STUDENT DISCIPLINE

Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

ARTICLE 1.1, TITLE 5, California Code of Regulations

41301. Expulsion, Suspension, and Probation of Students. Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation, or given a lesser sanction for one or more of the following causes which must be campus related:

(a) Cheating or plagiarism in connection with an academic program at a campus. (b) Forgery, alteration, or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus.

(b) Forgery, alteration, or misuse of campus documents, records, identification or knowingly furnishing false information to a campus.

(c) Misrepresentation of oneself or of an organization to be an agent of a campus.

(d) Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.

(e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse.

(f) Theft of, or nonaccidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.

(g) Unauthorized entry into, unauthorized use of, or misuse of campus property.

(h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction, or analysis.

(i) Knowing possession or use of explosives, dangerous chemicals, or deadly weapons on campus property or at a campus function without prior authorization of the campus president.

(j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.

(k) Abusive behavior directed toward, or hazing of, a member of the campus community.

(l) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose and which order is not inconsistent with any of the other provisions of this section.

(m) Soliciting or assisting another to do any act that would subject a student to expulsion, suspension, or probation pursuant to this section.

(n) For purposes of this article, the following terms are defined:

(1) The term "member of the campus community" is defined as meaning California State University trustees, academic, non-academic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.

(2) The term "campus property" includes:

(a) real or personal property in the possession of, or under the control of, the Board of Trustees of The California State University, and

(b) all campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.

(3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a blackjack, slingshot, billy, sand club, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.

(4) The term "behavior" includes conduct and expression.

(5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization that causes, or is likely to cause, bodily danger, or physical or emotional harm, to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.

(o) This section is not adopted pursuant to Education Code Section 89031.

(p) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this article is amended, all acts and omissions occurring prior to that effective date shall be subject to the provisions of this article as in effect immediately prior to such effective date.

41302. Disposition of Fees: Campus Emergency; Interim Suspension. The president of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester, quarter, or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the president of the individual campus, the president may, after consultation with the chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The president may impose immediately an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to ensure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of
charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the president or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

41303. Conduct by Applicants for Admission. Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he or she enrolled as a student, would be the basis for disciplinary proceedings pursuant to Section 41301 or 41302. Admission or readmission may be qualified or denied any person who, while a student, commits acts that are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

APPENDIX E

PRIVACY RIGHTS OF STUDENTS IN EDUCATION RECORDS

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g) and regulations adopted thereunder (34 C.F.R. 99) and California Education Code, Section 67100 et seq., set out requirements designed to protect the privacy of students concerning their records maintained by the campus. Specifically, the statute and regulations govern access to records maintained by the campus and the release of such records. In brief, the law provides that the campus must provide students access to official records directly related to the student and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate. The right to a hearing under the law does not include any right to challenge the appropriateness of a grade as determined by the instructor.

The law generally requires that written consent of the student be received before releasing personally identifiable data about the student from records to other than a specified list of exceptions.

Cal State L.A. has adopted a set of policies and procedures concerning implementation of the statutes and the regulations on the campus. Copies of these policies and procedures may be obtained at the Dean of Students Office, Student Affairs 117. Among the types of information included in the campus statement of policies and procedures are: (1) the types of student records and the information contained therein; (2) the official responsible for the maintenance of each type of record; (3) the location of access lists that indicate persons requesting or receiving information from the record; (4) policies for reviewing and expunging records; (5) the access rights of students; (6) the procedures for challenging the content of student records; (7) the cost that will be charged for reproducing copies of records; and (8) the right of the student to file a complaint with the Department of Education. An office and review board have been established by the Department of Education to investigate and adjudicate violations and complaints. The office designated for this purpose is: The Family Educational Rights and Privacy Act Office (FERPA), U.S. Department of Education, 330 C Street, Room 4511, Washington, D.C. 20202.

Cal State L.A. is authorized under the act to release "directory information" about students. "Directory information" includes the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The above designated information is subject to release by the campus at any time unless the campus has received prior written objection from the student specifying information that the student requests not to be released. Such written objections should be sent to the Office of the Dean of Students.

Cal State L.A. is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons are those who have responsibilities in connection with the campus' academic, administrative, or service functions and who have reason for using student records connected with their campus or other related academic responsibilities. Disclosure may also be made to other persons or organizations under certain conditions (e.g., as part of accreditation or program evaluation; in response to a court order or subpoena; in connection with financial aid; to other institutions to which the student is transferring).
APPENDIX F

INSTITUTIONAL AND FINANCIAL ASSISTANCE INFORMATION

The following information about student financial assistance may be obtained from the Center for Student Financial Services, located in Student Affairs 124, phone (213) 343-3240:

1. Student financial assistance programs available to students who enroll at Cal State L.A.
2. The methods by which such assistance is distributed among recipients who enroll at Cal State L.A.
3. The means, including forms, by which application for student financial assistance is made and requirements for preparing such application accurately;
4. The rights and responsibilities of students receiving financial assistance; and
5. The standards the student must maintain to be considered to be making satisfactory progress for the purpose of establishing and maintaining eligibility for financial assistance.

The following information about the cost of attending Cal State L.A. is available from the Center for Student Financial Services, located in Student Affairs 124, phone (213) 343-3240.

1. Fees and tuition (when applicable);
2. Estimated costs of books and supplies;
3. Estimates of typical student room and board costs and typical commuting costs; and
4. Any additional costs of the program in which the student is enrolled or expresses a specific interest.

Information about the refund policy of Cal State L.A. for the return of unearned tuition and fees or other refundable portions of costs is available from the Accounting Office, located in Administration 513, phone (213) 343-3550.

Information about Cal State L.A. policies about any refund because of the federal Title IV student assistance programs as required by the regulations is available from the Office of Student Financial Services, (213) 343-3240.

Information about the academic programs of Cal State L.A. may be obtained from the Dean of Undergraduate Studies, located in Administration 725, phone (213) 343-3830, or the Dean of Graduate Studies and Research, located in Administration 714, phone (213) 343-3820, as appropriate.

This information may include:

1. The current degree programs and other educational and training programs;
2. The instructional, laboratory, and other physical plant facilities that relate to the academic program;
3. The faculty and other instructional personnel;
4. Data regarding student retention at Cal State L.A. and, if available, the number and percentage of students completing the program in which the student is enrolled or expresses an interest; and
5. The names of associations, agencies, or governmental bodies that accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain and review upon request a copy of the documents describing the institution's accreditation, approval, or licensing.

Information about special facilities and services available to disabled students may be obtained from the Office for Students with Disabilities, located in Student Affairs 115, phone (213) 343-3140, (TDD 3139).

APPENDIX G

PROCEDURE FOR THE ESTABLISHMENT OR ABOLISHMENT OF A STUDENT BODY FEE

The law governing The California State University provides that a student body fee may be established by student referendum with the approval of two thirds of those students voting. The student body fee was established at Cal State L.A. by student referendum in June, 1947. The same fee can be abolished by a similar two thirds approval of students voting on a referendum called for by a petition signed by 10% of the regularly enrolled students (Education Code, Section 89300). The level of the fee is set by the chancellor. An increase in the student body fee may be approved by the chancellor only following a referendum on the fee increase approved by a majority of students voting. Student body fees support a variety of cultural and recreational programs, child care centers, and special student support programs.
Public transportation to and from Cal State L.A. is excellent. In addition to being easily accessible by freeway, the campus also is served by more than 20 bus lines from all parts of the greater Los Angeles area and portions of the Riverside and San Bernardino areas. Most RTD bus lines come directly onto the campus; a few run along surface streets north and south of the campus. Detailed information about all bus lines that serve the campus appears each quarter in the Schedule of Classes. Transit information and monthly bus passes are available at World Vista Travel in the University-Student Union.
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Cal State L.A. maintains a free minibus service for the convenience of its students. Schedules that show the arrival and departure times are available at the University-Student Union, University Police and the Student Health Center. Two minibuses operate daily between 7 a.m. and 1 p.m. One minibus only operates daily between 1 p.m. and 10:30 p.m. (except Fridays). The minibuses make various stops throughout the campus. Bus stops are shown on the campus map above.