Electives (select 7 units with at least one 500 -level seminar)
Comprehensive Examination (writien).
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 deparimental 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 unds)

A total of 45 units is required, with at least 41500 -level courses.
Fequired Core (23-26 unis):
ACCT 503 Quantitative Agproach to Managerial Decisions (4)
CIS 504 Management Information Systems (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 conlerence with a graduate adviser to meet professional objectives.

- Business Economics Option (14-17 units)
fequired Courses (9 units):
ECON 510 Seminar: Advanced Microeconomic Theory I (3)
ECON 511 Seminar: Advanced Microeconomic Theory il (3) or ECON 520 Seminar: National Income and Employment Theory (3)
ECON 521 Seminar: Monetary Theory and Policy (3)
Electives (4-7 units)
Students who have not taken ECON 409 for undergraduate credit must include it in their electives.
- 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: Imternational Finance (3)
MGMT 577 Seminar International Business Management (3)

MKT 543 Seminar: International Marketing (3)
Electives (4-7 units)
In addition, intermediate level proticiency 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 unis)
Required Courses (9 units):
CIS 527 Seminar: Computerized Decision Anelysis (3)
CIS 528 Seminar: Current Problems in Business Information Systems (3)
CIS 584 Seminar: Controlling and Auditing Computer Systems (3)
Electives (4-7 unils)
- 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, managoment-oriented degree providing for only limited concantration in one of the following options: accounting. business economics, tusiness information systems, finance, inter. national 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 Otfice.

## Requirements for the Degree ( 52 units)

A total of 52 units is required, with at least 48 in 500 -leval 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)
CIS 504 Management Information Systems (4)
ECON 502 Economic Analysis and Business Operations (4)
FIN 530 Seminar: Business Finance (3)
FIN 598 Graduate Direcled Study (1)
MGMT 501 Administrative Behavior and Systems
Management (4)
MGMT 594 Policy Integration and Strategy (3)
MKT 542 Seminar: Marketing Management (3)
MKT 598 Graduate Directed Study (1)
Additional Courses ( 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, oftice systems, or business economics. Each 3-unit, 500 -level seminar included must be accompanied by a 1 -unt 598 course from the same department. A minimumi of 16 units must be 500 level.
Comprahensive Examination (written) (O units):
Shudents 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 leachers primarly at the secondary school and community college levels. Students select one of two options: Community College or Seconday Schoot.

## 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

| ECON 201, 202, 369R | CIS 262R |
| :--- | :--- |
| MGMT 308 | FIN 261R, 363R |
| OSEE 361R | MKT 364R |
| Additional prerequisites for the Community College Option are |  |
| listed by specialization within the option as follows: |  | listed by specialization within the option as follows:

* Accounting- $\mathbf{1 6}$ 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 -leval management courses
- Computer and Related Technologies-16 units of 400- or 500 -level computer information systems courses.
- Economics-16 units of 400-or 500 -lavel 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 subsequenity 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.
Requirad Courses ( 16 units):
OSBE 510 Seminar. Contemporary lssues and Trends in Business Education (3)
OSBE 511 Seminar. Administration and Supervision in Business Education (3)
OSEE 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 ( 99 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 $410 A B$.
Banking and Finance
Required Courses (T 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

Fequired Courses (6 units)
MGMT 501 Administrative Behavior and Systems
Management (4)
MGMT 598 Graduate Directed Study (2)
Elactives (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 410 AB .

## 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 5B8 for one unit) plus nine or more units from EDSE 421A, 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)
$\begin{array}{ll}\text { MKT } 542 & \text { Seminar. Marketing Communication (3) } \\ \text { MKT } 598 & \text { Graduate Directed Study (4) }\end{array}$

## Electives (22 units)

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

## Office Systems

Required Courses (12 units)
OSEE 515 Information Processing in Business Education (4)
OSBE 516 Seminar: Advanced Business Communication (3)
OSBE 517 Seminar: Administrative Office Systems (3)
OSEE 598 Graduate Directed Study (2)
Electives ( 17 units)
Select eight units with graduate adviser approval; select nine units from EDSE 421 A . EDSE 421 K , EDSE 581 , OSBE 41 OAB.

## - Secondary School Option (29 units)

Required Course (4 units)
OSBE 515 Information Processing in Business Education (4)
Electives (25 units)
Select from 400- or 500 -level courses with adviser approval; include 8-12 units in business or economics, 6-8 units in education, and a 3-4 unit business education methods course. Students who have not successfully completed OSBE 410AB (or equivalent) previously must include it on their program.
Comprehensive Examination (O units)
Students should expect to take the comprehersive examination (BUS 596) the quarter they complete al course work on their program and must comply with school and departmental requirements.

## Master of Arts Degree in Economics

The General Option is intended for persons in industry, govern. ment, and education whe need to develop an understanding of contemporary economic analysis.
The Analytic-Quantitative Option is imended for individuals seeking an emphasis on applied quantitative analysis or planning to enter a doctoral program in Economics.

## 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 8 (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 qualitying courses are required, they must be so designated in advance. They may include upper civision and prevequisite courses.

## Requirements for the Degree ( 45 units)

The 45-unit program consists of core requirements which are to be taken together with eilther the General Option or the Analytic-Quanfitative 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) and
* ECON 511 Seminar: Advanced Microeconomic Theory II (3) or
> *ECON 521 Seminar: Monetary Theory and Policy (3) ECON 598 Graduate Directed Study (1, 1, 1)
> - Concurred arvolindet in ECON 598 for $t$ int reçoved wit each of tresse seminars.


## Options

Select one of the following options for $28-33$ units, Electives are determined in conterence 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 mathernatics, in consultation with 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 concentrasionfor those alecting 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 Séminan Econometrics (3)
ECON 598 Graduate Directed Study (1)
Electives ( $12-17$ units):
Select 400 - and 500 -level courses in economics, social and behaviocal sciences, business, or mathematics in consultation with a graduale 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 shail include a tield of concentration for those slecting the comprehensive examination.
Comprehensive Examination or Thesis (oo or 5 units):
BUS 596 Comprehensive Examination (0) or
ECON 599AB Thesis $(2,3)$
Students who select the comprehensive examination option mus! take examinations in macroeconomic and microeconomic theory and in a third field of economics chosen by the student. 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 Health Care Management

The Master of Science degree in Health Care Management assisis people presently or previously employed in health care settings io develop the necessary managerial skills and awareness of the most recent innovations in health care delivery systems to fulfilil the responsibilities of management positions in the industry.
The program's unique interdisciplinary character permits students to take courses in many disciplines, including psychology, nursing compuler information systems, linance, and labor relations.

## 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 resumé 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 seting Isend 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 lall 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. Alquired Courses (28 units):
MGMT 461 Management Theory and Practice (4)
WGMT 470 Managerial Leadership and Motivation (4)

MGMT 478 Financial Management of Health Care Institulions (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: Heatth Care Administration (2)
MGMT 595 Advanced Field Study (2) or
NURS 595 Advanced Field Study (2)
Electives (select 17 units of 400 - or 500 -ievel courses with prior adviser approval).
Comprehensive Examination (o 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 EconomicsInterdepartmental (BUS)

## 400 -level Courses

All 400 -level courses may be appiled toward mastar's degree requirements, subject to limits established by the department and aggroval of the graduate ackiser.

## Graduate Courses

Classified graduate standing and approval by the School of Bustness 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 lo registration. Independent research under guidance of faculty member. Acceptable final written report required. May be ropeated for credit to maximum of 8 units. Graded CRINC.

## 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 rasearch mathodology conducted at option of individual departments. Prior to completion, students will have: completed a tentalive outline of thesis, petitioned graduate adviser for appointment of a thesis committee, and submitted tentative outline to thesis committee. Graded CRNC.
599B Thesis (3)
Prerequisites: BUS 599A, written approval of thesis committee chair. Complation of thesis under direct supervision of thesis committee. Graded CRNC.

## Courses in Accounting (ACCT)

## Undergraduate Courses

The fallowing undergractuate courses ave restricted to conditionally classifed gracuate students. They do not yield credit toward advanced degroes.

## 260R Accounting Princlples (4)

Fundamentals of accounting theory and practice; how accounting serves the business entity.
350R Management Accounting and Analyais (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, proft planning, capital budgeting, and tax considerations.

## 400 -level Courses

Ail 400 -level courses except those followed by the sulfix $A$ mey be applied toward master's degree requíremthents, subject to Mimits established by the depantment and approval of the graduate advisar.

## Graduate Courses

Classified graduare standing and approval by the School of Business and Economics Gracuate Programs Ottice are required for admission to all 500 -level courses.

503 Quantitative Approach to Managerlal Decisions (4)
Use of quantitative information provided from accourding and statistical sources in arriving at solutions to complex business problems.
520 Seminar: Management Accounting Theory (3)
Corequisite: ACCT 598. Advanced accounting theory as appled to modern businiess 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 concupts implice in contemporary accounting practico; current devalopments in accounting techniques; specific applications to major aspects of finanelal statements.
522 Seminar: Current Topics In Financlal Roporting (3)
Corequisite: ACCT 598. Objoctives of financial statements, othcient capital markets, setting accounting policy, using accounting data, processing human information.
523 Seminar: Public Accounting (3)
Corequisits: ACCT 598. Historical development of professions, aude function in relation to athical and legal considerations, trends in new services for clients, the CPA firm, multinational practics: signposts of the future.

## 524 Seminar: Advanced Cost and Managerial

 Accounting (3)Prerequisite: ACCT 422; corequiste: ACCT 598. Selected analytical and policy issues underlying current developments is standards and techniques; application of advanced concepts to proft and nonprofit organizations.

## 525 Seminar: Internatlonal Accounting (3)

Corequisite: ACCT 59B. Selected analytical and policy issues underlying current devalopments in international accounting.
585 Seminar: Tax Theory and Business Applications (3)
Prerequisite: ACCT 421A; corequisite: ACCT 598, Tax concepls 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. Mathodology of researching complex tax problems; tax planning; scope of astivity, responsibility, and ethics of acopuntant in tax field.

## 587 Seminar: Taxation of Corporations and Shareholders (3)

Prerequisite: ACCT 421A; corequisile: ACCT 598. Statutory, regulatory, and case material applicable to corporation tax including formation, stock redemptions, and liquidstions; stock dividends and preferred stock bail outs; elections under subchapter S; personal holding companies, accumulated earning tax; collapsble corporations.

## 598 Graduate Directed Study (1)

Investigation of an approved project leading to written report; project selected in conference with seminar prolessor, and arrangements made for regular meetings during quarier: May be repeated for credit.

## Courses in Computer Information Systerns (CIS)

 Undergraduate CourseThe following undergraduate course is restricted to conditionaliy slassiliod graduate students. It does not yield oredit toward adusncot dearees.

## 252R Business Information Processing (4)

Findamentais of computer hardware, sotware, and oommunicaion subsystems; business modeling in IFPS: programming in 3ASIC: wse of time-sharing torminals for interactive data processng

## 40 -Hevel Courses

Al 400 -level courses may be appled towand master's degree reduivements. subject to limits estabished by the department and agporvall of the qraduate adviser

Groduate Courses
Cltesford graduato standing and approval by the School of Business and Economics Graduate Programs Office are required for atmission to all 500 -ievel coursess

504 Management Information Systems (4)
Teleprccessing, data management, and computing systems and their applications to business administration and management.
5 5t Seminar: Computerized Decision Analysis (3)
Corequisite: CIS 598. Analysis, design, management, and use of it business information system, concentrating on participation of 100 and middle managers in these functions.
$\$ 28$ Seminar; Current Problems in Computer Information Systems (3)
Preroquisite: CIS 527; corequisite: CIS 598, Latest research projects in computer information systems; application of research echniques and results to specific problems.
543 Seminar: Data Base Planning (3)
Prerequisite: CIS 504; corequisite: CIS 59B. Management usponsibilities in data base planning; methods of planning for data vasesi, case studies in data base development.
560 Seminar: Microcomputer Networks (3)
Prorequisites: CIS 262A, 504; corequisite: CIS 598. Advanced technology concepts and developments seminar, trends in hardware and associated operating systems and architecture; Distributed Information Systems (distributed data processing), netnorking, data communications related to networks.

## 567 Seminar: Business Expert Systems (3)

Frerequisiles: CIS 262R, 504; corequisite. CIS 596. Business expert systems and their role in reshaping traditional concepts of what organizations are, how they are managed, and how decisions are made.
581 Seminar: Health Care Information (3)
Prerequisite: HS 540; corequisite: CIS 598 . Introduction 10 comfuter hardware, software, telecommunications, and information bystems management; emphasizes medical informatics and healih care applications; includes advanced seminar presentations about current professional issues. Open only to MS-Heath Care Management students.
584 Seminar: Controlling and Auditing Computer Systems (3)
Corequisite: CIS 598. Controlling on-line interactive computaridata cormmunication syatems as a challenge to management and to internal and external auditors.

585 Large Scale Computer Networks, Telecommuinications, and Information Services (3)
Prerequisite: CIS 504; corequisite: CIS 596. Interdisciplinary survey of computer networks, supporting telecommunications, and network information services; international open system interconnection standards, global information services regulatory/legal infrastructure, and strategic network management. Not open to students in: MS Accountancy (IS option); MBA (BIS option); MS Business Administration (MIS option).

## 598 Graduate Directod 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 Economics (ECON)

## Undergraduate Courses

The following undergraduate courses are restricted to conditionally classined gracuate students. They do not yold crodit toward advanced degrees.

## 311R Managerial Economics (4)

Prerequisites: ECON 201, 369R. Managerial application of economic theory: optimization techniques applied to consumer choice, firm behavior, pricing, and the study of market structure.
369 Statistics for Business Administration (4)
Prerequisite: MATH 242. Linear statistical models and nonparametric methods emphasizing business applications, linear regression, and correlation; analysis of variance, index numbers, lime series and enumeralive data analysis; nonparametric statis: lica. Five hours per weak.

## 400 -level Courses

> All. 400 -level courses may be applied toward master's degree requirements except the following, subject to lamits established by the departmenf and approvalof the graduate adviser: ECON 403 , 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.
502 Economic Analysis and Business Operations (4)
Tools, conoopts, and factual data of the economist in solving specilic business problems; case method applications of principles, analytical tools, and sources of economic information to practical business situations.
510 Seminar: Advanced Microeconomic Theory I (3-4)
Prerequisite: ECON 410; corequisite: ECON 598. Advanced Ireatment of theories of housahoid choice, production and cost, and output and input markets. Emphasis on static, partial-equilibrium analysis.
511 Seminar: Advanced Microeconomic Theory II (3)
Prerequisite: ECON 510; corequisite: ECON 598. Continuation of ECON 510 with emphasis on general equitibrium analysis; capital theory, and intertemporal resource allocation.
514 Seminar: Econometrics (3)
Prerequisite. ECON 414; corequisite: ECON 598. Advanced treatment of statistics to analyze economic systems and test economic theories, emphasis on simultaneous aquation models and time serles models and their applications using econometric computer soltware.

## 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 Nsted 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 transters; discussion of international institutions regulating trade and payments among nations.
571 Seminar: Economic History of U.S. (3)
Prerequisite: ECON 471; corequisite: ECON 598. Crifical 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 develogments in theoretical, empinical, 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 conferance 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 outtine of thesis, petitioned graduate adviser for appointment of a thesis committee, and submitted a tentative outline to thesis committee. Graded CRNC.
599B Thesis ( $1-3$ )
Prerequisites: ECON 599A, written approval of thesis commiltee chair. Completion of thesis under direct supervision of thesis committee. Graded CR/NC.

## Courses in Finance (FIN)

Undergraduate Courses
The following undergraduate courses are restrictod to condilionally classified graduate students. They do not yield credit towand advancend dogreses.
261R Law for the Business Manager (4)
Law of contracts, agency, business organizations, sales, negobable instruments, antitrust, and administrative agencles.

## 363R Managerial Finance (4)

Prerequistes: ACCT 360R, ECON 369R. Analysis of the linancial management function; development of tools, procedures, and theories used in analyzing the investment decision, the financing decision, the dividend decision, and the manapement of working capital.

## 400 -level Courses

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

## Graduate Courses

Classkied graduate standing and approval by the School of Busness and Economics Graduate Programs Offlce are required for admission to all 500-level courses
530 Seminar: Business Finance (3)
Prerequisites: ACCT 503, 520, ECON 502; corequisite: FIN 598 Analysis of acquisition and administration of assets by the business corporation; analysis of interrelationships between business financial decisions and national economy, and development of theories of financial management.
531 Seminar: Financial Institutions (3)
Prerequisite FIN 530; corequisite:. FIN 598. Role of firtancial instifutions in U.S.; financial management of various types of financial institutions against a background of national income, nalional policies, and flow of funds.

## 532 Seminar: Estate Planning (3)

Corequsite: FIN 598. Advanced planning for individual financial management; consideration given to legal, financial, and taxation problems, inchuding insurance, investments, trusts, real estate, wills, and related laws.

## 533 Seminar: International Finance (3)

Prerequiste: FIN 530; corequisite. FIN 598. Analysis of institutions, instruments, and procedures used in financing exports and imports, international investments, and multinational business operations.
534 Seminar: Portfolio Management (3)
Prerequisite: FIN 530; corequisite: FIN 598. Application of modern capital market theory to porffolio management; determination of market risk and return measures; development of portfolio preference models to cover range of investors from pension funds and institutional investors to individual investor.

## 535 Seminar: Speculative Securities and Markets (3)

Prerequisite: FIN 534; corequisite: FIN 598 . Economics and pricing of options and futures contracts and their applications to portfolio management; how proliferation of speculative markets affects efficiency and stability of linancial system.
598 Graduate Directed Study (1)
Investigation of an approved project leading to written report; project selected in conference with seminar professor, and arran-
gements made for regular meetings during quarter. May be reptated for credit.
Courses in Management (MGMT) Undergraduate Courses


#### Abstract

The following undorgraduafe courses are restricted to conditionally classifind graduate students. They do not yleid creatit toward advanced degrees.


365R Managing Production Operations (4)
Prerequsito: ECON 369P. Problems, techniques of analysis, and rocent developments that relate to production of goods and serveas. Analysis of problems in production control, demand lvecasting, quality control, scheduling, and logistics.
367 R Managing Organizational Behavior (4)
Analysis of manager and employee behavior in work situations. Managing interpersonal and intergroup processes and relationthips in organizations.
363 Managing Modern Organizations (4)
Analysis of management principles and functions in complex orgivizations, ufilzing organizational resources efficiently and effecfvely, understanding and interacting meaningfully with the external awiranment.
400-Level Courses
AI 400 -level courses may be appled foward mastor's degree nguinements, subject to limits established by the department and approval of the graduate adviser.

## Graduale Courses

Cassiled graduate standing and approval by the School of Eluskness and Economics Graduate Programs Office are required tor admigsion to all 500 -igvol courses.
501 Administrative Behavior and Systems
Management (4)
Analysis of concepts and cases of managerial action in organizasons, including decision making processes; organizations as open Dystems, methods for strategically aligning an organization's capabiltes, structure, and environment.
560 Seminar: Strategic Planning (3)
Corequisite: MGMT 598. Development of comprehensive business strategy and tong range plans with consideration for the social, economic, political, and technological environments; current spategic 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. ailocation of responsibility and authority, and formation and betavior of industrial work groups. Critical analysis through case materials.

562 Seminar: Control (3)
Corequisite: MGMT 599. Continued devolopment of a management philosophy with emphasis on procedure enalysis automation. operations research, control of operations, and morale. Case materials, searching analysis of compary operations.
564 Labor Relations Aspects of Health Care Delivery (2)
Prerequisite: NUPS 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; collnctive 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 matorial and selectod 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 salety.

## 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 concepls 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 tradtional manufactuting 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)
Corecuisite: 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 faken 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-feacher 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 classited graduate students. If does not yieid credit toward advanced degrees.

## 364R Managerial Marketing (4)

Prerequisites: CIS 262R, ECON 369R. Marketing role in business and economy; changing customet wants and social needs; product/service development; distribution, promotion, and pricing strategies; managonal approach in planning, execution, and control of marketing programs.

## 400 -level Courses

All 400-level courses may bo appliod toward masfer's degree requirements, subject to limits established by the department and aporoval of the graduate acviser.

## Graduate Courses

Classified graduate standing and aporoval by the Schoor of Business and Economics Graduats Programs Office are requirod for admission to all 500 -level courses:
540 Seminar: Marketing Communication (3)
Corequisite: MKT 598 . Strategic promotional variables considered individually and in combination to cormmunicate want-satisfying attributes of products and services in the most effective and efficient manner.

## 542 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.

## 543 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:

## 544 Seminar: Consumer Behavior (3)

Corequisite: MKT 398. 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.

## 545 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/senvice suocess. fully into the marketplace.

## 546 Scminar: 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-ot-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 retall environment; procedures for interrelating, planning, and implementing retai strategy involving marketing, management, and tinancial 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.

## 598 Graduate Directed Study (1)

Investigation of an approved project leading to written-report project selected in conference with seminar protessor, and arrangements made for regular meetings during quarter, May be repeated-for credit.

## Courses in Office Systems and Business Education (OSBE)

## Undergraduate Course

The foriowing undergraduate course is restricted to conditionally classified graduate students. It does not yieid credit foward advanced degrees.
361R Techniques of Managerial Communication (4)
Prerequisite: Passing WPE score. Principles of report preparation. Techniques of collecting and interpreting data and wrting reports. Discussion and application of letters, memos, and managerial communications.

## 400 -level Courses

All 400 -lavel counses may be applied toward master's degree requirements, subject to limits established by the departiment and approval of the graduato adviser.

## Graduate Courses

Classitied graduate standing and approval by the School of Bussness and Economigs Graduate Programs Office are required for admission to all 500 -level courses.
510 Seminar: Contemporary Issues and Trends in Business Education (3)
Prerequisite: OSBE 4108; corequisite: OSBE 598. Identification and analysis of significant current issues, trends, and problems aflecting 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; eflective resource utlization.

## 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.

## 514. Seminar: Evaluation of Student Performance in

 Business Education (3)Prerequisite: OSBE 410A; corequiste: OSBE 598. Principles of asting and evaluation; prognosis, aptitude, and achievement lests or specialized business careers; interpretation of business educaon tests; grading and evaluating business subjects; standardized asts and their construction.

515 Information Processing in Business Education (4)
thegraling information processing applications throughout the pusiness curricula at secondary and community college levels; latning, purchasing, and evaluating microcomputer hardware and soltware in business education.

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

## 517 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

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


## SCHOOL OF EDUCATION

## Divisions within the School

Division of Administration and Counseling Division of Curriculum and Instruction
Bivision of Educational Foundations and Interdivisional Studies
Division of Special Education

## SCHOOL OF EDUCATION

Office of the Dean<br>King Hall D2069<br>Phone: (213) 343-4300

Ottice of the Associate Dean for Instruction and Graduate Studles
King Hall D2070
Phone: (213) 343-4303
Olfice of the Assoclate Dean for Student Services
King Hall D2078
Phone: (213) 343-4322

## Accreditation

The School of Education is nationally accredited by the National Council for Accreditation of Teacher Education (NCATE). All credential programs are approved by the Califomia Commission on Teacher Credentialing. The school offers programs leading to advanced degrees and to certification for specified fields of protessional developmant in Calfornia public schools and other public and private agencies. Because the campus is located in the hear of metropoittan Los Angeles. School of Education programs refiect concern with the problems and chalenges of urban education with particular emphasis on bilingual/crosscultural issues.

## Degrees Offered

The School of Education ofters the following Doctor of Phiosophy. Mastier of Arts, and Master of Science degroes:
Doctor of Phiosophy degree in Special Education, offered joinsly with the University of Cailifornia, 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 Ats dogree in Education with the following options:

- Area of Special Interest option, designed for students with special needs not covered by other M.A. degree options, permits flexibility and an opportunity to concentrate course work in a particular research intorest or a problem of immediate prolessional concern.
- Adult and Continuing Education option, designed for teachers in this field who serve the community in myriad settings, e.g. secondary adult education programs, community colleges, technical schools, health agencies, libraries and museums, occupational and prolessional associations, state and federal educational agencies, the armed forces, correctionalinstrutions, parks andrecreation depariments, four-year college continuing education prograns, community-based organizations, cooperative extonsion programs, religious organizations, and more.
- Computor Education option, prepares computar aducation specialists to direct school computer laboratories, select, design, and evaluate instructional sottware; teach computer programming/problem solving to children; and tal leadership roles in school districts in computer applications in education.
- Educational Foundations option, with concentrations in social and psychological foundations, for educators interested in the theoretical bases of education.
- Elementary Teaching option, designed to improve elementary leaching competence, with several areas of concentration, and to develop skills for continuing sell-directed study.
- Instructional Technology option, prepares specialists for elementary and secondary institutions who combine skills in computar 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 specialzod teaching of reading.
- Seconday 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 Ants degree in Educational Administration, with a choice among several aroas of specialization, prepares educators with an understanding of American urban life, provides them with the research skils needed to direct, conduct, analyze, and evaluate research projects, and presents oppontunities for in-depth study of administering, managing, supervising, coordinating, and directing pubic, private, and panochial 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.
The Master of Arts degree in Teaching Englishto 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 speoial purposes.
The Master of Arts degree in Urban Education is intended for students interested in the problems and challenge of providing education in metropolitan schools, and offers a number of options.
Master of Science degrae in Counseling, with options in Appliod Behavior Analysis; Higher Education Counsoling; Marriage, FamiIy, and Child Counseling; Rehabileation Counseling: School Counseling: School Counseling and Principalship; and School Psychology, designed to prepare greduates to function as professionals in these areas.
Students entering graduate education programs must meet specific requirements set forth for each program in addation 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 addtional requirements set forth for each program. Admission to the universty does not automatically adme students to credential er
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 fitth year of study completed after the baccalaureate. Students may elect to complete all or part of their protessional requirements in the fitth 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 LA, and must satisly 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 universityrecommended preliminary credential and transfer students who possess a preliminary teaching credential will be admitted upon successful complation of application procedures to fifth year programs. In addition, transfer students who have not completed directed leaching will be required to complete admission procedures listed in the Undergraduate Programs section under Admission to Credential Programs.

## Definition of the Fitth 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 tifith 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 quater units in residence at Cal Slate 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 fith year program with an adviser.

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

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

## 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.


## INTERDISCIPUNARY 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. Itustrative 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 Hal 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 unts)

A total of 45 units is required, with at least 23 in 500 -level courses. All students must completo 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 oflerings 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 indfividual needs: Courses used to satisty teaching credential requirements may not be used to satisty 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) pitus
EDFN 599日 Thesis or Project (5)

## ADMINISTRATION AND COUNSELING

## School of Education

## DIVISION OFFICE

## King Hall C1065

Phone: (213) 343-4250

## Program advisement provided for:

- Adminisiration 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 eddition to general university requirements for admission to graduate study, applicants to a master's degrea or credential program must mest the following requirements:
- Complation of application to the division and assignment of permanent adviset.
- A2.75 grade point average in the lasi 90 quarter units attempted.
- Completion of writing examinations and required inventones.
- 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 Flestrictions on Credi Earned in Variable Unit Courses earlier in this chaptor.

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 Soclal 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 lssues in Educational Administration (3)
EDFN 553 Educational Research and Decision Making
'to be tahon aher completion of alf other care cruarses


## Areas of Speciallzation (minimum 14 unts)

Select one of following specializations:

## - Administration of Special Education (14 units)

Prerequisite to this specialization is completion of a feaching credential authorizing service in one or more special education programs.
Required Courses (7 units):
EDAD 548
EDSP 585
Electives (7 units):

- School Business Administration (15-21 units)

Fequired Courses (12-18 units):
EDAD 533, 543, 584ABCD
Electives (select 0-4 units from following):
ACCT 520, 521, 524
CIS 527
EDAD 526, 527, 539
EDIT 553
MGMT 573
POLS 563

- Supervisor of Instructional Programs (14 units)

Required Course (3 units):
EDAD 548
Electhres (11 units)

- The Principalshlp (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 Sclence degree in Courtseling includes the following options:

- Appliad Behavior Analysis
- Higher Education Counsaing
- Marriage, Family, and Child Counsaling
- Rehabiitation Counseling
- School Counsaling
- School Psychology


## Adimission to the Program

In addition to university requirements for admission to graduate sludy, students must have a 2.75 grade point average in the las 90 quarter units attempted, submit the divisional application form take additional examinations required by the division, and br interviewed by the divisional screening committee.
Applications are considered twice a year, and the dates may van by option. Students should inquire at the division office for speck schedules.

Aor to admigsion to the program, graduate students are enwaraged to obtain preliminary advisement and begin taking courgas. not to exceed 13 units. Upon acceptance, each student is issghed a faculty adviser. Each student's degree program is sanned with sufficient tiexbbility to permit consideration of individual sedis and interests.

Requirements for the Degree (70-112 unis)
Antal of $70-112$ units is required, depending on option selected, wh at least hat in 500 -level courses. The program consists of a nguired core, an option, related field and clinical study, and a \#mprehensive examination or thesis. Students must demonstrate poficiency in statistics and may do so by completing EDFN 452. Sere is a limt on credit that may be earned in yariable-unit curses. See Restriction on Credit Earned in Variabie Unit Courjes earlier in this chapter

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

Uoat students are expected to take the comprehensive examinaton (COUN 596). Students who wish to wrile a thesis must femonstrate high academic ability as needed for significant indepandent study and must be recommended by faculty members on et basis of superior facility in statistics and research methods: Sudents planning to pursue doctoral studies are encouraged to indertake the thesis.
Pequired Core (25 units):
DOUN 405A Theoretical and Developmental
Aspects of Behavior (4)
COUN 428 Messurement Issues in Counseling (4)
COUN 503 Sociological and Cultural Factors in Counseling (4)
COUN 505 Practicum: Counseling (3)
Set-Development and Special intorest (6 units):
Select from following with adviser approval.
COUN 405日 Theoretical and Developmental Aspects of
Behaviar (4)
'COUN 406 Behavioral Counseling and Seli-Management (4)
COUN 445 Developmental Selt Exploration (2)
COUN 475AB Counseling in the Work Place $(3,3)$
COUN 490 Problens in Guidance (1-5)
"COUN 504 Advanced Topical Sludy 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)
EDSP 510 Resource Specialist in Special Education (4)
"unless requirsd in option
Mppropnate substitutions may be made in special instances with adviser recommendation and division chair approval.

Options
Select ane of following options.

- Option in Applied Behavior Analysis ( 45 units)

This program prepares students for the qualifying axamination for national certification in behavior analysis, administerad by the Association for Behavior Analysis (ABA). The program is designed, also, for graduate students who plan to work as behavior anslysts, specialists, or consultants, and for those who elect to specialize in the behavioral area for doctoral training

Required courses ( 45 units):

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 spocialists. This program is accredited by the Council on Counseling and Filated Educational Programs (CACREP) and prepares students for the certlication 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 universilies.

Required courses (49-55 units)
COUN $405 \mathrm{~B}, 406,448,506,507,510,516,517,532,581$,
586C (for 7-13 units), 587

- Option in Marriage, Family, and Child Counseling (54-61 units)
This option is designed tofulfill recently-enacted state requirements for licensure in Marriage, Famity, and Child Counselling as outtined 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 $410 A B$ (or equivalents arranged with adviser)
Requived Courses (54-61 units):
COUN 403 The Psychosocial Dynamics of Child Maltreatment and Famly 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 4368 Counseling and Psychotherapy: Theories, Methods, and Issues (4)
COUN 460 Laws Relating to the Child and Family (4) or
PSY 464 Psychoiogy 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 Counsoling (54 units)

Rehabilitation counselors are concerned with the wocational and personal potentialities of individuals with disabilities (psychological, social, medical, andior 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 satigtactory 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 pupl personnel services in elementary or secondary schools. Students who earn the master's degree with this option also quality for the Pupil Personnel Services credential with advanced specialization in School Counseling and Child Weltare 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 Natonal Board of Cert-fied 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 obmplete 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 schoot 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 abilites 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 Wellare and Attendance Services.
Prerequisites ( 12 units):
EDFN 452, EDSP 400, PSY 410 A
Aequired Courses ( 87 units):
COUN $406,450,460,501,502,522,531 \mathrm{AB}, 532,533,534,535$, $581,585,586 \mathrm{P}$ (for 30 units), 593
Comprehensive Examination or Thesis or Project ( 0.7 units):
COUN 596 Compreherisive Examination (0) or
EDFN 5994 . Thesis of Project Pianning (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.

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

## PILOT PROGRAM COMBINING:

## Master of Sclence Dogree 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 Principal. ghip), along with the Pupil Personnel Services credential with Advanced Specializations in School Counseling and Child Woltare 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 Ccunseling. The complete combined program appears below.
Requirements for the Degree and Credentials ( 85 units )
COUN 405A Theoretical and Developmental Aspects of Behavior (4)
COUN 406 Behavioral Counseling and Self-Management (4)
COUN 428 Measurement lssues in Counseling (4)
COUN 447 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 505 Practicum: Counseling (3)
COUN 506 individual Counseling Strategies (4)
COUN 516 Group Counseling (4)
COUN 517 Group Counseling Practicum (3)
COUN 529 Principles of Research and Program Evaluation in Counseling (4)
COUN 586S Supervised Field Experience in School: Counsaling (6)
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 518 Program Management, Development, and Evaluation (3)
EDAD 527 Advanced Educational Management and Evaluation (3)
EDAD 567 Seminar Current Issues in Educational Administration (3)
EDAD 575 Simulation Seminat: Junior High and Middle School Administration (3)
EDAD 5 B1 Field Work in Educational Administration (2, 2, 2)
EDSP 501 Problems and Practices in Special Education (3)

## Preliminary Administrative Services Credential

Regulations, policies, and procedures governing the program for the Preliminary Administrative Services credential, available from the division oftice, 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 Callifornia public schools. This credential is valid for 5 years or for 3 years after the candidale's first employment under the credential, whichever comes last

## Minimum Credential Requirements ( $45 \mathrm{units}_{\text {s }}$ )

The following requirements are subject to change without notice Students should consult the division for current requiremente Minimum requirements for issuance of the Preliminary Administra: tive 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 y special education (mainstreaming) (EDSP 501).
- Apassing score on the Calitomia Basic Educational Skills Test (CBEST).
- Three years of successful classroom teaching experience.
- Campletion of writing examinations and inventories required by ne division.
Fapuled Core (28-29 units):
EDAD 306 Leadership in Education (3)
SDAD 507 Educational Planning and Decision Making Models (3)
EDAD 509 Basic School Law (3)
EDAD 5 to School Finance (3)
EDAD 515 Social and Political Forces Aflecting Education (3) or
DDFN 537 Educational Issues in Metropolitan Areas (4)
EDAD 517 Educational Stalf Development and Evaluation (3)
IDAD 518 Program Maragement, Development and
Evaluation (3)
EDFN 553 Educational Research and Decision Making (4)
EDSP 501 Problerrs and Practices in Special Education (3)
Atass of Specialization (17 unts)
Solect one of the following specializations:
+ Administration of Special Education (17 units)
Ferequisite to this specialization is completion of a teaching tredental authorizing service in one or more special education pograms.
Frocuired Courses (14 units):
EDAD 548 (3)
EDAD 581 ABCD $(2,2,2)$
EDSP $503,585(3,4)$
Electives (3 units):
- Supervisor of Instructional Programs (17 units)

Aequired Courses (9 units),
EDAO 548 (3)
EDAD 581 ABCD $(2,2,2)$
Electives (8 units):

- The Principalship (17 units)

Required Courses ( 12 units):
EDAD 527 (3)
EDAD 581 ABCD $(2,2,2)$
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 successtul performance as a California gchool administrator. The credentia! licenses holders to periorm all administrative and supervisory services in grades prekindergarten-12 in California public or private schools.

## Prerequisites:

+ A master's degree;
* A Prelminary or Clear Administrative Services credential issued under present or prior regulations
- Passing score on UNIV 400 , the Writing Proficiency Examination (WPE):
- 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 successtul, full-time school administrative experience in the public schools or in private schools of equivalent status;
- Completion of at least one-halt of the program while employed in a ful-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.
Aequired core (6 units):
EDAD 552 Instructional Leadership in Socioculturally Diverse Schools (3) and/or
EDAD 552P Practicum; Instructional Leadership (3)
EDAD 567 Seminar: Current Issues in Educational Administration (3) and/or
EDAD 567P Practicum: Current Issues in Educational Administration (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 Practicurn: Educational Personnel Administration (3)
EDAD 542 Collective Bargaining in Education (3) and/or
EDAD 542P Practicum: Collective Bargaining in Education (3)
EDAD 543 Seminar. Schcol 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 Prolessional Development in Educational Administration (3)


## Pupil Personnel Services Credential

(with Advanced Specializations in School Gounseling and Child Wellare and Attendance Services)
The requirements for the Pupil Personnel Services credential with Advanced Specializations in School Counseling and Child Wellare 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.

Prerequisites (B 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 460 Laws Relating to Children and Child Welfare (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 Cuttural Factors in Counseling (4)
COUN 505 Practicum: Counseling (3)
COUN 506 Individual Counseling Strategies (4) or
COUN 522 Family Counseling with Children (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 oourse work and internship, students are required to pass the Califomia Basic Educational Skills Test (CBEST) and either pass an oral examination covering the Schoor Counseling competencies or complete requirements for the master's degree in Counseling.

## Counselor Internship Program

This program provides opportunities for counseling intemship experiences in special needs areas as identifed by cooperating school districts. Individuals perform ocunseling 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 protessions requires continuous efforts at self improvement and deveiopment 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 protessional 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 Lsgal 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 Systerns in Educational Administration (3)
EDAD 548 Seminar: Supervision of Instructional Programs (3)
EDAD 584A, 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, mofrvation, consaltation, and teaching. The certificate is awarded upon the completion of the following courses in counselor edfucafion ( 16 units) with a minimum B $\quad(3.0)$ 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 Sell 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 Behevior Analyais to Education (4)

## Certificate Program in Developmental Counseling

The program provides practitioners experience in developing and implementing programs of peychological education. The certificati is awarded upon completion of the following courses (16 units) with a minimum a $(3.0)$ average. Refer to the Graduate Study chapter of this catalog for general regutations governing all certificatit 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)
COUNEDCI 528 Creative Behavior: Develcoment 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 specilic 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 qualitying degree (or be working towars one) which is a master's or higher degree in Counseling or a relates discipline.* This degree must sither be awarded by a campu whose program is accredited by the Council on the Accreditater of Counseling and Related Educational Programs (CACAEP). the

Councl on Pehabilitation Education (CORE), or the Academy of Gritied Social Workers or based on a program of study including rsupplemented by all of the following:

- Supervised practice of at least 600 clock hours.
- Course work in human paychological development in late adolescence and adulthood, basic helping relationship skills, the world of work, intervention stratagies in helping relationships, and besic principles of behavioral research
-Esmpiar of reared doscipines indude chicat counseing induspiat, and achoot 2nchobgy and socid work.
husents who do not hold a qualitying degree may be admitted to re program while pursuing such a degree. These students will scoive the certificate when they have completed requirements for vith the degree and the certificate with a minimum $B(3.0)$ grade joit average in each program.

The faculty committee established to oversee this certificate proyan will evaluate all applicants on the basis of their academic yraparation, employment experience, a written application, official rurscripts of tuansferred course work, letters of reference, and an ndvidual 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. Aefer to the Gaduate and Posttaccalaureate Sfudy chapter of this catalog for peneral regulations governing all graduate level certificate popgrams.

Required Courses (28 units):
coUN 475AB Counseling in the Work Piace $(3,3)$

COUN 503 Sociological and Cultural Factors in Counseling (4)
COUN 505 Practicum: Courseling (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 46 Problems in Controlied Substances (3)
Electives (select 7-8 unils from following):
HS 469 MGMT 468, 473**; 501, 573**
MKT 443**

* consule canalog couse fathgs for cowse prerequisiss

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

## 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 opportuntites for high potential individuals to perform administrative/supervisoryfunctions under ciose university supervision while completing course requirements for the Prefiminary 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 Hal Czo97

Phone: (213) 343-4350
Program advisement provided for:

- M.A degree options:
- Elementary Teaching
- Reading
- Secondary teaching
- Mulliple Subject credential
(including bilingual emphasis and intemship option)
- Reading/Language Arts Spocialist
- 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 tequired. Students who intend to register in courses they wish to apply on a master's degree should consult an adviser prior to regisfration. There is a limit on credit that may be earned in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses eatier 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 unis)
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 unds fram following:
EDEL $511,521,531,541,551$
Select 12 units from following:
EDCI $412,449,453,455 \quad$ EDEL 413,423
EDFN 536, 539, 560
Electives (select 9 units with adviser approva)
- 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
Soliect 8 units from following:
EDCI 412,536,539
EDEL 423
EDFN 525, 537
Elicifives (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, 486
EDFN 562
Electives (select 6 units with adviser approval)

- Elementary Curriculum and Instruction ( 33 units)

Select 12 units from following:
EDCI 412
EDEL $411,421,423,431,441,451$
EDFN 562
Seiect 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 Elomentary School (33 units)
Required (4 units):
EDEL 592
Select 8 units from following:
COUN/EDCI 528
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

Bectives (10 units):
The following are recommended:
DDAD 509 EDCI 412, 522, 526
EDEL 511, 521,531, 541, 551,590
EDT 450AB, 451 EDSP 401, 402, 540

- Mathematics Education (33 units)

Froulted ( 12 units)
EDEL 431, 432, 531
Select 13 units from following.
EDEL 433ABCD, 435, 480, 535,580
EDIT 481
Spgested Electives (8 units)
EDCI 526
EDEL 451, 551,590
Ditar electives: Select with adviser approval

- Reading and Language Arts in the

Elementary Classroom (33 units)
Pequired Core (16-17 units):
Language Arts (8 units):
EDEL 421, 521
liaading (8-9 units):
EDCI 522
EDEL 411,511
Stibet 8-12 unils from following:
EDCl 412, 449, $455 \quad$ EDEL 423, 434A
EDFN 562
Electives ( $4-9$ units): Select with adviser approval
Comprehensive Examination (0 units):
EDEL 596 Comprehensive Examination (0)
Sudents should expect to take the comprehensive examination EDEL 596) the quarter they complete all course work on their srogram 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, satisties witent requirments established by the International Reading Association for reading specialsts.

## Admission to the Program

In addition to university requiremants for admission to classified Fraduate 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 equivalenti).
Two years of teaching experience are recommended for degree candidates; credential candidates must verity completion of intensive (minimum two years at the time the credential is granted) and extengive iminimum two levels with two socioeconomiciethnic 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.

Fequired 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 Readingllanguage Arts Clinicians (5)
EEDCI 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)

* reosar to iotal al 4.6 unitr

Electives (seiect 3-4 units from following):
COMD 400 COUN 532
EDCI 527EDEL. 427, 525
EDSP 400, 420, 462, 465, 524
Additional Electives (select 3 - 13 units from following with adviser spproval):

COMD 450, 456, $461 \quad$ COUN 405AB, 501
EDCI 538, 549 EDFN 409, 452, 510, 530, 560
ENGL 400 or $401,406,430,432$
PSY 412AB, $418 A B, 420,422$ SPCH 494
Comprehensive Examination or Thesis or Project (o or 7 units):
EDCI 596 Comprehensive Examination (C) or EDFN 599A Thesis or Project Planning (2) plus
EDFN 5996 Thesis or Project (5)
Students who select the comprehensive examination ( EDCl 596) should expect to take it in the quarter in which they complete al course work on their program and must oomply with school and division requirements. With caraful planning, students can earn the Reading/Language Arts Specialist credental concurrently with the M.A. degree 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 educationat and educationally related telds

## Admission to the Program

In addtion 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 \& the area of concentration is required. Before receiving the M.A degree, students must have earned a credential and possest teaching experience approved by the Division of Curriculum ane Instruction. There is a limit on credit that may be eamed ir variable-unit courses. See Restriction on Crecit Eamed in Vanlabt Unit Courses earlier in this chapter.
Required Courses ( 16 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 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):
EDCl 504
EDSE 520, 591, 595
Electives-select at least 13 units from following:
EDAC 507
EDCI 510. 522
EDIT 456. 525
EDSE 491, 524

## Emphasis II

Pequired Courses ( 30 units):
EDCl 450, 535
EDSE 415, 423, 520, 595
EDIT 430
EDSP 400
Comprehersive Examination or Thesis or Project ( 0,7 units):
EDSE 596 Comprehengive Examination (0) or
EDFN 599A. Thesis or Project Planning (2) pus
EDSE 599B Thesis or Project
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 Arls 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 Calfornia 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.

Aequired Courses ( 45 units):
EDCl 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
Skils 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 Storyteling is designed for persons with an interest in the techniques, theories, and literature associated with the ancient and modem art of storytelling. The cartificate 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 applicablo toward some master's degree programs in education and other fields.
Completion of this credit certficate 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 unis)

Required courses (15 units):
EDEL 424 Methods of Using Creative Dramatics with Children (3)
EDEL 473 Storytelling for Teachers (4)
ENGL 430 Children's Lterature (4)
SPCH: 490 Studies in Children's Speech Arts (4)
Fiold 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 foliklors of an ethnic culture.

# EDUCATIONAL FOUNDATIONS AND INTERDIVISIONAL STUDIES 

## School of Education

DNISION OFFICE
OH C2098
Thone: (213) 343-4330
Program advisement provided for:

- Adut and Continuing Education
(Designated Subjects Credential)
- Bilingual Specialist
- Community College
- Computer Education
- Educational Foundations
- instructional Technology
- Language Development Specialist
- Library Services
- Teaching English to Speakers of Other Languages
- Urban Education
Courses offered in:
- Adult and Continuing Education (EDAC)
- Educational Foundations (EDFN)
- Instructional Technology (EDIT)
- Library Science (LBR)


## Master of Arts Degree in Education: Option in Adult and Continuing Education

The option in Adult and Continuing Education is designed for leschers in this field who serve the communty in myriad settings, e.g., secondary schools with adult education programs, community colleges, technical schools, health agencies, Ibraries and museums, occupational and professional associations, state and Isderal educational agencies, the armed forcas, correctional instituJons, local parks and recreation organizations, four-year instituSons with continuing education programs, community-based aganizations, cooperative extension programs, religous organizaions, and more. All students complete a common core; concentraton in either adut or continuing education is accomplished through slective courses.

## Admission to the Program

in addition to universtly requirements for admission to graduate Itudy, applicants must possess a 2.75 grade point average in the ast 90 quarter units attempted.

## Roquirements for the Degree ( 45 units)

A total of $\mathbf{4 5}$ units is required, with at least 23 in 500 -level courses. A comprehensive examination, or a thesis or project, pectaining to the option is required. There is a limit on credit that may be earned in variable-unit courses. See Fiestrictions on Credit Eamed in Variable Unit Courses earlier in this chapter.
Fequiked 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 Devolopment in Adult and Occupationa! Education (4)
EDAC 477 Counseling in Adult and Occupational Education (3)
EDCI 560 Principlos 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:
EDAC 507 Adult iliteracy (4) or
EDAC 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 unita)
EDFN 596 Comprehensive Examination ( 0 ) or
EDFN 599A Thesis or Project Planning (2) plis
EDFN 599B Thesis or Projoct (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 tequirements.

## Master of Arts Degree in Education: Option in Computer Education

This option prepares advicators 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; ovaluation, selection, and design of instructional sottware; 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 a minimum 2.75 grade point average in the last 90 quarter units attempted, teaching experience, must have completed courses covering computer Iteracy 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 unts)

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 Eamed 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. Mirrocomputing in Schools: BASIC II (4)
EDIT 484 Authoring Tools in Education (4)
EDIT 556 Roie 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 oourses in the program to at least 23 .
EDAD 545 EDEL 580.581
EDIT 483, 555,570
LIBR 501
EDSP 500
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 (O or 7 units):
EDFN 596 Comprehensive Examination (0) or
EDFN 599A Thes's or Project Planning (2) plis
EDFN 5998 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 Educational Foundations

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 theoret-: cal bases of education.

## Admission to the Program

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

## Requirements for the Degree ( 45 units)

A total of 45 units is required, with at least 23 in 500 -evel 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 eamed 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 Oiscipine ( 12 units):
Select with edviser approval.
Area of Concentration (8 unis)
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 Chid Development (4)

## - Soclal Foundations

EDFN 506 Comparative Education (4)
EDFN 507 History of Education (4)
EDFN 508 Philcsophy 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 595 Comprehensive Examination (10) or
EDFN 5998 Thesis or Project Planning (2) pilus
EDFN 599 B Thesis or Project (5)
Students should expect to take the comprehensive examination (EDFN 596) the quarter they complete all course work on ther 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 unis)

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 eamed in variable-unit courses. See Restrictions on Credit Earned in Variable Unit Courses earlier in this chapter.
Aequired Courses ( 29 units):
EDCI 560 Principles and Practices of Curriculum Devalopment (4)
EDFN 500 Evaluation of Educational Research (4) or
EDFN 509 Methods of Research in Education (4)
EDIT 450 B Instructional Materials Preparation Lab (1)
EDIT 451 Instructional Media Techniques (4)
EDIT 453 Instructional Technology and
Programmed Insiruction (4)
EDIT 456 Computer Applications in Schools (4)
EDIT 553 Administration of Instructional Media Services (4)
EDSE 521 Teaching Effectiveness: Research and Application (4)
Seiect 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)

Sproved Electives ( $0-7$ units) Select with attviser approval.
Compretensive Examination or Thesis or Project ( 0.7 units)
EDFN 396 Comprehensive Examination (O) or
EDFN 598A. Thesis or Project Planning (2) plus
EDFN $599 B$ Thesis or Project (5)
Sudens should expect to take the comprehengive examination EDFN 596) the quarter they complete all course work on their vogran 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 ipecialists for forary media centers at all educational levels, emfrasizing development of critical skills in this growing, rapidly thanging and expanding field. Credentialed teachers study rous aspects which vary from research to one-on-one contact nth students to budget and purchasing to management, and more.

## Adnission to the Program

In additon to university requirements for admission to graduate sudy. applicants must possess a 2.75 grade point average in the ast 90 quarter units attempted and a Multiple Subject or Single Subject leaching credential issued by the state of California.

## Requirements for the Degree ( 45 un its)

4 total ot 45 units is required, with at least 23 in 500 -level courses. A corrorehensive examination, or a thesis or project. pertaining to he oplon is required. There is a limit on credit that may be earned In varable-unit courses. See Restrictions on Credit Eamed in Verable Unit Courses earlier in this chapter.
Asquined Courses ( 12 units):
EDCI 560 Principles and Practices of
Durticulum Development (4)
EDFN 500 Evaluation of Educational Research (4) or
EDFN 509 Methods of Research in Education (4)
EDFN510 Advanced Study: Learning Theory and Education (4)
Select five from following ( 20 units):
LBR 401 Management of School Library Media Programs (4)
UBR 403 The School tibrary Media Program and the Curriculum (3)
LIBR 406 AB Information Services in School Library Media Programs I, II (4, 4)
UER 407 Selection. Acquisition, and UtFIzation of Instructional Materials (4)
LJeR 409 Cataloging and Classification of Instuctional Materials (4)
Aoproved Electives (select 6-13 units with adviser approval)
Comprehensive Examination or Thesis or Project ( 0,7 units)
EOFN 596 Comprehensive Examination (0) or
EDFN 599A. Thesis or Project Planning (2) phes
EDFN 5998 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 requrements.

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

[^0]positions both in the U.S. and abroad. The program emphasizes language acquisition processes, teaching methodology, linguistics, language lesting, 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. Thay must make formal application to the School of Education and must consult a faculty adviser for program planning. A leaching credential andior two years of teaching experience prior to entering the program are desirable.

## Prerequisites

- tENGL 401 English Language in America (4)
- One year of college level study in a foreign language
- Minimum 350 score on TOEFL (visa students only)
t Ammumt is grade reching


## 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 crecit that may be earned in variable-unit courses. See Restrictions on Credit Eamed in Variable Urü 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 455 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) or
EDFN 564 Teaching ESL for Academic Purposes (4)
EDFN 567 Language Testing (4)
EDFN 500 Evaluation of Educational Research (4)

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Electives (sevect $2-9$ units from following with adviser approval);
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 599A Thesis or Project Planning (2) plus
EDFN 5998 Thesis or Project (5)
Students should expect to take the comprehensive examination (EDFN 595) 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 individuais interested in the problems and challenge of providing education in metropolitan schools, and ollers a number of 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 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 unts)

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 Credir Earned in Variable Unit Courses earlier in this chapter.
*Required Core (20 units)
EDCI 560 Principles and Procedures of Curriculum Develcoment (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)

* exchet for the BlinguaiC Cessecutural Edvication and Preimenary Admisirative

Serwces Credentl' cption which has a separate cove
Options (18-25 unts)
Select one of the following options:

- Afro-American Students in Urban Schools (18-25 units)

Fequired Courses ( 18 units):
PAS 401, 420; 425, 440, 499 (for 2 units)
 necuargengss Conaita Pan-AMicen Studes Dopartment scoviser;
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
GEOG 446
HIST 598 (for 2 units)
Electives-select 0-7 units with adviser approval,

- Bilingual/Crosscultural Education (18-25 units)

Roquired Courses (10 units)
EDFN $540 A B$ and 560
Electives-seiect 12-13 units with adviser approval.
EDCI 449, 450, 453, 455, 510, 535, 536
EDFN $438,506-508,531,562,563,567,570,581$

- Chicano Students in Urban Schools (18-25 unils)

Required Courses (96 units)
CHS 410, 444, 470, 506
Electives-Select 2-9 units with adviser approval.

- Teaching in the Urban Classroom (18-25 units)

Fequired Courses ( 18 units)
EDCl 526,535, 539
EDFN 531,598 (for 2 units)
Electives -select $0-7$ units with adviser approval.

CHS 410, 470
EDFN 438,540AB,560,598
EDAC 507
PAS 420, 425
EDCI 452, 510, 536
Comprehensive Examination or Thesis or Project ( 0,7 units):
EDFN 596 Comprehensive Examination (D) 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

- Bilingual/Crosscultural Education and Preliminary Administrative Services Credential ( $51-59$ units)
This option does not utilize the core used in the other opsions. Alt requirements appear below. Students who complete this option will have a Preliminary Administrative Services credential authoriting service in any public school administrative position and an M.A degres in Urban Education: Option in Bilingual/Crosscultura Education.
Carequisites ( 12 unils)
EDFN 437 plus two of the following:
EDCl 449, 453,455 EDFN 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) yr
EDFN 537 Educational Issues in Metropolitan Aveas (4)
EDAD 517 Educational Staft Development and Evaluation (3)
EDAD 518 Program Management, Development and Evaluation (3)
EDAD 548 Seminar. Supervision of Instructional Programs
EDAD 554 Seminar. Research and Development in Educational Administration (3)
EDFN 540AB Blingual Education Models (3, 3)
EDFN 553 Educetional Research and Decision Making (4)
EDFN 580 Field Work in Administration and Supervision of BilingualiCrosscultural Programs (3)
EDSP 501 Problems and Practices in Special Education (3)
Solect two from following:
EDAD 581 ABCD Field Work in Educational Administration (2.2 Select one from foĭowing:
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 unifs)
EDFN 596 Comprehensive Examination (0) or
EDFN 599A Thesis or Project Planning (2) plus
EDFN 5998 Thesis or Project (5)

Susents should expect to take the comprehensive examination EDFN 596) the quarler they complete all course work on their 7ogram and must comply with school and division requirements,

## Community College Instructor Credential

Ragurements for the Community College Instructor credential are set by the Board of Governors of the California Community Coleges. Details of these requirements and of a program in professoral educationfor those interested in community college teaching nay be secured from the Coordinator for Community College Education; a brochure is avallable in the Division of Educational Fundations and Interdivisional Studies office.

## Designated Subjocts Teaching Credential

The Designated Subjects credential authorizes holders to teach in he subject designated on the credential in classes organized simarily for adults. Programs are submitted to the Commission on Teacher Credentialing for approval in such general areas as Techical and Trade Education, Business Education, Homemaking Esucation, Adult Education, Driver Education, and Driver Training. The following departments offer vocational area advisement: Oiminal Justics, Family Studies and Consumer Sciences, Olfice Sytems and Business Education, of Technology. The Division of Educational Foundations and Interdivisional Studies advises in sult education and coordinates the credential program.

## Requirements for Preliminary Credential

Asplicants must satisfy the following criteria for the
unversity-recommended credential:

- Formal admission to the Designated Subjocts credential program.
- Verification of a bachelor's degree from a regionally accredited institution and a passing score on the CBEST
for adull-academic authonizations and for driver education)
- Verification of five years of work experience in an appropriate vocasional area and possession of a high school diploma (for vocational authorizations)
* Submission of an acceptable program and evaluation pian 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 utiversity-recommended crodential:

- Satisty requirements for the preliminary credential.
- Complete all formal admission requirements including the devolopment 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 occupatonal 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 lincluding nutrition and the study of the physiological and sociological effects of the use of dangerous drugs, narcotics, alcohot, and tobacco) by complefing HS 456 of equivalent.
Professional Education Requirements (10 unils):
EDAC 471 Methods and Materials of Adult Education (4)

EDAC 472 Principles of Teaching Adult and Occupational Education (3)
EDAC $473 \times, Y$ Supervised Field Experiences in Aduit and Occupational Education $(2,2)$
EDAC 476 Curriculum Development in Adult and Occupational Education (4)
EDAC 477 Counseling in Adult and Occupational Education (3)
Determination of academic and/or occupational competence shall be made by university faculty and personnel from cooperating school districts and agencies.

## 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

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

## Requirements for the Credential ( 50 units)

EDCI 560 Principles and Practices of Curriculum Development (4)
EDEL 427 Using Children's Literature in Elementary Classrooms (4)
EDIT 451 Instructional Media Techniques (4)
EDSE 524 Instructional Materials in Secondary Schools (4)
LIBR 401 Management of School Library Media Programs (4)
LIBR 403 The School Liorary Media Program and the Curriculum (4)
LIBR 406AB information Services in School Library Media Programs 1, II (4,4)
LIBA 407 Selection, Acquisition, and Uvilization of Instructional Materials (4)
LIBA 409 Catatoging and Classification of Instructional Materials (4)
LIBR 450 Field Work in School Library Media Programs (6)
LIBA 501 Computer Applications in School Library Media Centers (4)

## Supplementary Authorization for Single or Multiple Subject Teaching Credential

Holders of a Single Subject or Mustiple 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):
EDCl 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 Mathods for Teaching Second Languages (4)
ENGL 401 English Language in America

## Certificate Program in Computer Applications in Schools

The credit cerliticate program in Computer Applications in Schools is designed to prepare teachers to use oomputers 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 modity instructional soffware: to evaluate and select hardware; and to use computers to manage classrooms and schools. Completion of this credit certificate program roquires 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 regutations goverring all certificate programs.

## Requirements for the Certificate (28 unis)

Core Courses ( 12 units).
EDIT 430 introduction to Computers and Their
Uses in Classrooms (4)
Select two from following:
EDEL 480 Teaching Microcomputing in Schoois (4)
EDIT 481 Miprocomputing in Schools: BASIC I (4)
EDIT 482 Mierocomputing in Schools: BASIC II (4)
EDIT 483 Pascal for Teachers (4)
EDIT 484 Computer Authoting Tools (4)
Electives (select 16 units from following with carefut attention to prerequisites):

```
EDAD 545 EDEL, 480,580, 581
EDIT 452,*481,*482,*483,*484,525,555,556, 557
EDSP }50
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## *if nat taken in me cove

Students are encouraged to consult an adviser for assistance in planning their program to fullain 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 quality 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 unis)

In addition to course requirements, a passing UNIV 400-Writing Proficiency Examination (WPE) score and a valid California teaching credential, or eligidility for one, are required for issuance of the certificate, A minimum $B$ (3.0) grade point average is required in all course work on the program. Refer to the Graduate Study chapter of this catalog for general regulations governing all certifcate programs.
Required Courses ( 32 units):
The following sequence is recommended:

ENGL 401 English Language in America (4)
EDCl 453 Teaching in Bilingual/Crosscultural Schools (4)
EDCl 449 Developing English Reading Skills in
Biingual/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 in adviser consuitation):
EDFN 540AB, 567,570,571 EDIT 452
ENGL 405

## Language Development Specialist Certificate

## (issued by the state of California)

The Language Development Specialist certilicate program is designed to prepare teachers to work with Limited English Prithclent (LEP) students in the areas of English as a second language and basic skills development. Completion of the program entifes parlicipants to register for a state examination loading to issuance of a Language Development Specialist certificate provided they meet al state requirements including those listed below. Students may pursue this certificate simultaneously with a leaching cents cate progran.

## Admission to the Program

In addition to university requirements for admission to graduale study, applicants must have completed at least one year of college level course work in a foreign language and must hoid a vait teaching credential issued by the state of California or be eligici for one. Formal admission to the program is obtained throug' application to the Division of Educational Foundations and Inte: divisional Studies.

## Requirements for the Certificate (minimum 36 units)

In addition to course requirements, a passing score on UNIV 400 the Writing Proficiency Examination (WPE), is required. A minmum 日 (3.0) grade point average is required on all course won included in the program.
Required Courses ( 36 units):
The following sequence is reoommended:
ENGL 401 English Language in America (4)
EDCI 453 Teaching in Beingual/Crosscultural Schools (4)
EDCI 449 Developing English Reading Skilis in
Blingual/Crosscultural Individuals (4)
COMD 455 Natural Processes of First Language Acquisition if EDFN 560 Theories of Teaching and Learning Second

Languages (4)
EDFN 562, 563 Methods for Teaching Second Languages (4 : EDFN 567 Language Testing (4)
EDFN. 568 Field Work in English as a Second Language (4)
Optional Electives (select with adviser consultation):
EDFN $540 \mathrm{AB}, 570,571$ EDIT 452
ENGL 405

## SPECIAL EDUCATION

## School of Education

## DIVISION OFFICE

King Hall C1064
Telophone: (213) 343-4400
Program advisement provided for:

- Communicatively Handicapped
- Early Childhood Handicapped
- Gifted
- Handicapped Adolescents and Young Adults
- Learning Handicapped
- Muticultura/Mukilingual Special Education
- Orientation and Mobility
- Physically Handicapped
- Resource Specialist
- Seversly Handicapped
- Visually Handicapped
- Joint Doctoral Program


## Courses offered in:

- Higher Education (EDHI)
- Special Education (EDSP)


## Mester 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 leamers. 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 tharapists, or orientation and mobility specialists.) The master's tegrea 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 theit last 90 quarter units attempted, must have completed (or complete concurrently) requiroments for a Calilornia credential in Special Education (except in selected areas), must complete al division application procedures, and must obtain approval from the division. A number of scholarships and traineeships is availablo to qualified students. Intarested students should contact the division olfice.

## Advisement

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

## Requirements for the Degree ( 45 units)

A total of $\mathbf{4 5}$ 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 may pursue the thesis or project option only when they meet specilied division and school criteria. There is a limit on credif that may be earned in variable-unit courses. See Restriction on Credt Earned in Variable Unit Courses earfier in this chapter.

Fequired Core (11 unis)
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 unis)
Select one option from the following, with adviser consultation and approval. Special education credental courses may be included to a maximum of 16 units.

- Early Childhood Education for the Handlcapped (19-22 units)
EDSP 415, 416, 503 ( $3-6$ unis), 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 $405 B$ or PSY $412 B \quad$ CRIM 460 or SOC 484 or 486 EDSP 405,502,503*,506 SOC 482
'coure substidion perrinied with advear approver' for in-service insividuals
- 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
Seioct 16 units from following:
COMD 450, 456
EDSP $401,402,404,405,450,550$
PSY 406
- Mutticultural/Muitilingual Programs in Special Education ( 31 units)
Prorequisites:
EDSP 401, 402
EDSP 408 or COMD 455
Recommended prerequisites:
COUN 502
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.
Blilingual Methodology
EDCl 453, 455, 536
EDFN 537, 540AB


## English as a Second Language (ESL) Methodology EDFN 560,562, 563 <br> EDUC 499 <br> 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
HIST 4948
Japanese-American Studies
One of the following: ANTH 443; ART 431; EDFN 437 or 438; GEOG 425 ; PHIL 435; SPCH 489
JAPN 400A, 4008, 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 Speciallst 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 unts from following:
EDSP 401, 402, 404, 405, 460, 461, 462
COMD 450, 452
- Resource Speciallst in Special Education (15 units) EDSP 502, 503, 510, 585


## - Education of Severely Handicapped

 Individuals (11 or 19 units)Plan A. Autistic and Severoly Emotionaliy 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, 568
Electives ( $0-23$ units)
Courses must be approved by an adviser and will include graduate courses, courses that meet credental requirements in the candidate's field of specialization, and two courses outside the
field. Sixteen units of credential courses within the candicate'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 5998 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 coro, 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 fecture courses and field experiences. The second level of preparation includes the specialization courses that provide knowledge and experiences related to the ares of speciaization. For credentials that allow for more than one area ot emphasis, there is course work within each area of emphasls. Studerts 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 Muttiple 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 Titie 5 have been approved for offoring at Cal State L.A. The programs are available to those who possess, or are earning concurrently, a Muitiple Subject or Single Subject teaching credential. The programs are also available to those who possess, or can qualify for, a basic taaching credential authorized under previous legislation. Areas of Special Edutation preparation under this option are:

- Communication Handicappod Speciallst Credential: Includes speech and hearing, aphasic and severe oral language handicapped, and deaf and severely hard of hearing, and deal-blind
- Giffed Specialist Credential.
- Leaming Handicappod Specialist Credentiat. Includes learn. ing disabiäties, 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 parlially seeing.
- Clinical-Rehabivtalive Services Crodential in Orientation and Mobitity. Authorizes services for work with the blind and partially sighted in schools and rehablitation agencies.
- Administrative Services Credential: Authorizes services as a superintendent, associate superintendent, deputy superintendent. principal, assistant principal, supervisor, consultant, of
coordinator, or in an equivalent or intermediate level administraive position.
- Resource Specialist in Special Education Certificate.


## Admission to Credential Programs

All students who plan to enter a program for one of the Special Efucation Specialist credentials must apply for admission to the School of Education Credential Programs. Students in upper svision standing at Cal Slate L.A. are oligible to apply. However, 15 units bepond the baccalaureate are needed to obtain the redential. All students must possess or concurrently obtain a basic California teaching credential. Consult advisers in the Division of Currieulum and tnstruction for specific oourse sequentes and requirements for the basic credential. Individuals who hold I valid basic credential (preliminary or clear) may obtain informaton and application forms at the School of Education Student Services Center. KH D2078, Individuals who have not completed the basic credential (preliminary or clear) should register for EDCl 300. Also see Admission to Credential Programs and Directed Teaching.

Admission to the Division of Special Education Credential Programs is based on:

- Completion of application.
- Completion of EDCI 300 (if acplicable).
- Verification of academic abiity by grade point average or scores on one of the following tests: ACT, SAT, GRE, SCAT, or MAT.
- Three letters of recommendation.
- Letter of professional intent.
- Employment by participating school district (for admission to an internship oredential program).


## Special Education Specialist Credentials

- Communication Handicapped Specialist Credential ( $61-116$ units)
This specialization has two subareas of preparation-one offered by the Division of Special Education and one offered by the Department of Communication Disorders. The subarea of Deat and Severely Hard of Hearing requires 62 units. The subarea of Speech and Hearing, Aphasic, and Severely Oral Language Handcapped 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 $400-406,420,425,429,450,456,461,462 A B$,
470-476, 478AB, 490AB, 570AB-578
COUN 405 or PSY 412 AB
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 specilic to the subarea.

Electives (seiect 8 units from following):
COUN 492
EDCI 526
COUN/EDCI 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. Oft-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), 598 (for 2 unils)
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 456 or EDSP 408
- Severely Handicapped Specialist
Credential ( 48 units)

Option 1. On-Campus Program (49 units):
Required courses.
EDSP 400-405, 407 (for 12 untits), 480,481
COMD 456 or EDSP $40 B$
COUN 501

## Option 2. Oft-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), 598 (for 2 units)
Acdritiontal 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 umits), $461,465,466,467,469.568$ COMD 456 or EDSP 406
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 feaching)
EDSP 489 (5) (generic practicum)

- Gifted Specialist Credential (47 units)

Required Courses ( 39 units):
EDSP 400-404, 407 (for 12 units), 440, 441

## - Administrative Services Credential: Supervision of Special Education

Requirements for the credential appear in the listing of programs within the Division of Administration and Counseling (Preliminary Administrative Services credential) earlier in this chapter.

## - Resource Specialist in Special Education

The Resource Specialist in Special Education serves mildly handicapped chidren and youth who spend a majority of their school day in a regular classroom. The Resource Specialistmust possess a valid teaching credential in Special Education; have a minimum of three years of successtul full-lime classtoom 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 certiticate 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 LA.

## - Option for Preservice Resource Specialist Training

Required Courses (16-17 units):
EDSP 489 (5) or 503 (6) $\quad$ EDSP 501,510,512

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## - 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 Certiticate of Competence, and is available only to preatranged groups.

Required Courses:
EDSP 489 (for 12 units), " 504

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- Option for Internship Resource Specialist Training

Required Courses ( $26-27$ units)
EDSP 489 or 503 ( $15-16$ units)
"EDSP 501, 510, 512

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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 Cailfornia, Los Angeles and Califomia State University, Los Angeles, combines the unique resources of the two insthutions. 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 specialization in which students plan to do their dissertation. Practicum, field work, andjor 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 oquivalent, either in special education in an allied field, or in the cognate field in which they propose to work. It 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 (eurrenty, a minimum total score of 1,000 is required on the general test of the Graduate Record Exarrination).
- Have a grade point average of at least B (3.0) in all upper divis:on work.
- Maintain at lesst 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 protessional 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 Slate 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 Slate LA. Course requirements from both campuses include core, minor, breadth, research and design, research internship, specialization. and cognate courses. Speoitio 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 statistics and research; provide an understanding 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 specilic 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 of more quarlers 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 absencs
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 complesion 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.
Ater the candidate has completed the written qualifying examinaions successhully, a joint doctoral committee will be appointed by be deans of the graduate divisions of the two institutions. This committee will be composed of two approved faculty members from ne UCLA Graduate School of Education, fwo 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 commilee will conduct an oral examination covering lopics from both special education and the cognate discipline related to the candidate's research proposal, to determine the candidate's qualifications to conduct meaningtul fesearch in the teld.

## Advancement to Candidacy

Cardidates who have passed both written and oral qualifying examinations fle an application for advancement to candidacy. Thereafter, enrollment is required each quarter in EDSP 699, or such course or courses as the student's committeo chair may sfrect, 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 inferrelations between education and the cognate discipine. 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 De 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 interreiation 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<br>Division of Special Education<br>5151 State University Drive<br>LOs Angeles, California 90032<br>King Hall C1064<br>Phone: (213) 343-4400<br>University of California, Los Angeles<br>Graduate School of Education 405 Hilgard Avenue Los Angeles, California 90024<br>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.

## Disclpiline Name and Abbreviation

Division
Adult and Comlinuing Education (EDAC)
Educational Foundations and Interdivisional Studies
Counseling (COUN) ........Administration and Counseling
Curriculum and instruction (EDCI) ... Curriculum and Instruction Educational Administration (EDAD)
. . . . . . . . . . . . . . ... Administration and Counseling
Educational Foundations (EDFN)
. . . . . . Educational Foundations and Interdivisional Studies Elementary Education (EDEL) . . . . Curriculum and Instruction Higher Education (EDHI) . . . . . . . . . . Spacial Education** Instructional Technology (EDIT)

Educational Foundations and Interdivisional Studies Library Science (LIBR)
. . . . . . Educational Foundations and Interdivisional Studies Secondary Education (EDSE) . . . . . Curriculum and Instruction Special Education (EDSP) . . . . . . . . . . . . . Special Education
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## Courses in Adult and Continuing Education (EDAC)

(Dwision of Ectucational Foundations and interdivisional Studes)
400 -Level Courses
All 400 -ievel courses may be applied toward master's degree requirements, subject to IImits establlshed by the division and approval of the graduate advlser.

## Graduate Courses

Classmed graduate standing is requirad for adinvission, except inat postbaccalaureate students msy enroll in 500 -levelcourses thatare 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 iliteracy upon career, social, and life stage development. Implications for program planning.

## 578 Organization, Administration, and Supervision of

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

## 581 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 complation, instructor consent. Specific preparation for directed teaching. Multiple purposes of the community college, community relationships and materials; organization, personnel relationships; qualifying for and securing empioyment.

## 589 Directed Teaching in Community College (6)

Prerequisites: EDAC 582, approval of coordinator for community college education. Directod teaching in a community college for selected students holding a master's degree. Graded CR/NC.

## Courses in Counseling (COUN)

## (Division of Administration and Counseling)

## 400-Level Courses

All 400-lovel courses may be applied toward master's degree requirements, subject to Imits esfablished by the division and approval of tie graduate adviser.

## Graduate Courses

Classified graduate stanaing is required for admission, except that postbaccalaureate studente may erroí in 500 -Vevel courses that are required in a credantial program.
501 Behavior Analysis in School, Home, and Agency Sottings (4)
Prerequisite: COUN 406 or 489 or EDSP 402 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: Counselling (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 signilicance in counseling process. Graded CR/NC.
506 Indlvidual Counseling Sirategies (4)
Prerequisites: COUN 405A; 505; instructor consent; prerequisìie or corequisite: COUN 447 or 448 . Techniques and strategies of
individual counseling that apply to specific settings or derive from specitic theories of counseling.
507 Individual Clinical Counseling (3)
Prerequisites: COUN 428, 447, or 448; 406 or 501; 505; 506; instructor consent and advisar; 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 CRNC.
510 Counseling Students in Higher Education (4)
Characteristics and problems of American college students; impact of college life on individual, psychosocial aspects of student oulture and college environment as wel as cultural differences.
511 Long Range Planning in Educational Settings (4)
Long range planning techniques for a systernatic 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; ourricular and other educational modificationg in light. of rapid sociocuttural 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 courseling and marriage counseling within family systems framework.

## 522 Family Counseling with Children (4)

Prerequisite: COUN 589 or 5B6. Theory and methods of counseling children in families, includes assessment and study of child's role in tamily structure; applications of verbally-and activity-based therapy.

## 523 Famify Counseling Laboratory (3)

Prerequisites: COUN 406 or 501 ; 507 ; corequisite: COUN 520 . Supervised counseling of couples and families utilizing strategies and techniques of systems theory; practical experience designed to enthance students' skills as family counselors. Lecture 1 hour, laboratory 3 hours. May be repeated to maximum of 6 units.

## 528 Creative Behavior: Development and Facilitation (4)

 (also Iisted as EDCI 528)Prerequisites: Teaching credential, teaching experience. Factors that inhibit and facilitate creative thinking directed toward stimulaling and productively utilizing creative abities of students in urban society.

## 529 Principles of Research and Program Evaluation in Counseling (4)

Preroquisite: EDFN 452 or PSY 302. Principies, procedures, and ethical considerations underlying collection, analysis, and interpretation of data for research and evaluation of counseling programs.
531AB Individual Testing and Case Study
Techniques (4, 4) (also listed as PSY 531AB)
Prerequisites: PSY 430 or COUN 428 plus one of following sequences: PSY410AB and $438 ; 410 \mathrm{AB}$ and $431 ; 41 \mathrm{BAB}$ and 431; or 410A and COUN 405, 501, and 529. Intensive practice in administration and interpretation of better known testing devices for mental ability, perceptual and motor functioning, and personality dynamics, with attention to integration of results in case studies. Lecture 3 hours, laboratory 3 hours.

## 532 Diagnosis of Learning Problems and Remedial Procedures (4)

Prerequisite: COUN 531B. Methods used by classroom teachers and school speciallists in diagnosis and remediation of learning disabilities.
533 Psychological Testing Applied to Mentally, Physically Atypical (4)
Prerequisite: COUN 531B. Selection, administration, and interpretation of tests used for appraising the atypical individual. Lecture 3 hours, laboratory 3 hours.
534 Methods of Personality Assessment (4) (also Nisted as PSY 534)
Prerequisite: COUN 531B. Study and evaluation of current personality tests, objective and projective. Administration, scoring. interpretation, and reporting of results; findings of empirical research. Lecture 3 hours, laboratory 3 hours.

## 535 Alternative Assessment (3)

Prerequisite: COUN 531A. Selection, educational implications, and use of alternative assessment techniques and lindings: implications for least restrictive placement. OHered: Winter.

## 538 Seminar: Methods of Vocational Assessment (4)

Prerequisite: COUN 428, 448. Use of statistical and clinical methods as basis for vocational appraisal in counseling; emphasis on individual case report.

## 540AB Foundations of Rehabilitation (3, 3)

Prerequisite: Admission to graduate rehabilitation counseling option. Introduction to profession of rehabilitation counseling, including sludy of roles and functions of rehabilitation counselors and impact of disability on psychological, physical, and social life of individuals.
541 Intervention Strategies with Disabled Adults (4)
Prerequisites: Admission to a graduate program in Counseling: COUN 442,506,540AB or employment experience as a rehabilita-
tion counselor and permission of instructor; corequisite: appropriate field work or employment experience as a rehabilitation counselor. Systematic analysis of case daia for decision-making, intervention recommendations and methods of expediting the case process in public and private sector rebabilitation systems; strategies for managing caseload pressure.
542AB Medical Aspects of Disability (3, 3)
Review of literature and research implications for rehabiltative counseling of major physical and psychiatric conditions leading to disablement; 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: Pupll Personnel Services (4)
Prerequiste or corequisite: COUN 586. Organization, administration, and evaluation of pupil personnel services in public elementary and secondary schools or in oommunity colleges.
583 Seminar: Preventive Counseling (4)
Prerequisites: COUN 405A, 503. Ptimary prevention as a model of counselor service delivery; developmental interventions that simulate affective development through didactic and experiential learning activities

505 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: Admigsion by application fied with division by fith week of preceding quarter and approved by adviser and division associate chair. Supervised field experience in schooi counseling, higher education oounseling, or school psychology involving work with pupils, parents, teachers. administrators, community agen. cies, and others. Graded CR/NC. May be repeated to maximum of 30 units. Candidates for Services credentlal with Pupi Personnel Services specialization enroll in an appropriate field experience as foliows:

## 586C Higher Education Counseling <br> 586P Psychometry and School Psychology <br> $586 S$ 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 reponts required.

## 588 Supervised Practice in Rehabilitation <br> Counseling ( $3-10$ )

Prerequisites: COUN 505, instructor consent, application filed with division by fith 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 fith week of preceding quarter. Supervised counseling involving work with individuals, childran, couples, and tamilies. Graded CRNC. 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 counseior 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 fith week of preceding quarter. Supervised professional experience: one unit requires 40 hours of practice. Graded CRNC 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 fieid experience 3 hours scheduled plus 3 hours arranged. May be repeated once for credil. Graded CANC.
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 taculty. May be repeated for credit. Graded CRNC.

## 598 Graduste Directed Study (1-4)

Prerequitites: A B (30) 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 (EDCl)
(Division of Curricutum and Instruction)
400-Level Courses
All 400-ievel courses may be appiod toward master's degree requinements, subject to Amits established by the division and approval of the graduate adviser.

## Graduate Courses

Classined graduate standing is required for admission, excopt that posibaccalaureate students may enroll in 500 -ievel courses that are requited in a credential program.
504 Optional Systems in Education (4)
Prerequisite: Teaching credential. Trends in allernative education such as continuation education, year-round schools, alternative schools, with specific reference to Southem 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; leaching credential and experience. Advanced study of current issues and programs in reading instruction; application of recent research tindings to reading curficulum. 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; aupervised diagnostic experience.

## 524 Diagnostic Procedures for Reading/Language Arts Clinicians (5)

Prerequisite: EDCl 522. Advanced diagnosis of severely disabled readers andior 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)

Prerepuisite: EDFN 500. Igsues 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 Nisted as COUN 528 )
Prerequisites: Teaching credential, teaching experience. Factors that inhibit and faciltate creative thinking directed toward stimulating and productively utilizing creative abiities 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 Crossculfural 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 Evaltation of Reading Language Arts Programs (4)
Prerequisites: Valid Calfornia teaching credential: prerequiste or corequisite: EDCl 541. Reading/language arts program planning and evaluation; articulation of school and district readinglanguage arts specialist responsibilities; development and maintenance of school-community channels of communication.

539 Instructional Stralegies for Inner City Schools (4)
Prerequisite: Teaching credential. Instructional strategies, resources, and organizational patterns designed forteaching children and youth of inner city schocls; methods of dealing with typical learning disabilities of inner city school chidren. 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 oliric pupils who evidenoe reading disabities, 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: EDCl 540, instructor consent. Supervised field experience in organization, administration, and supervision of readinglanguage arts programs at district or school level.

549 Seminar: Developing English Reading/Language Arts Skills in BilinguallCrosscultural 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 arnalysis, curriculum design, selecting materials, strategies for developing English reading/lan: guage arts skills for culturallyflinguistically diverse students.
560 Principies 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)
Prerequisiles: 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)

(Division of Adminisifation and Coumsefing)
Graduate Courses

> Classined gracuate standing is requived for admission, except that postbaccalaureate students may enrow in 500 -levelcourses that are reqitred in a credential program.

506 Leadership In Education (3)
Prerequisite: EDAD 503, Investigation of principles of oducational leadership and organizational theory, including analysis of administrative roles, process, and communication.
507 Educational Planning and Decision Making Models (3) Educationat models; includes interunit and intraunit processes; uses of research and technology in school management, devoloping, implementing, and evaluating goals to practices.

## 509 Basic School Law (3)

Legal aspects of education, including rights, duties, and liabilifes 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 acfivities required.
515 Social and Political Forces Affecting Education (3)
Social and political forces aflecting education, inciuding 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 cerlificated and classified staft.

## 518 Program Management, Development, and

Evaluation (3)
Overview ot major trends in curriculum development, management of curriculum $K$ K-12; program articulation and evaluation, relationship between human developmentlearning 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 skils. Understanding of self and others; effects of leadership pertaining to school administration and supervision. Sensitivity training laboratory 4 hours weekly. Graded CRNC. Credit awarded for only one of EOCI 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 schocl 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 adminstration, 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 Porsonnel 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. Prectical experience in applying principles, practices, and procedures of school personnel administrationt includes recruitment, selection, placement, evaluation, retention, dismissal, beneffis. Graded CR/NC.
542 Collective Bargaining in Education (3)
Prerequisite: EDAD 539. Practices and procedures affecting employer-employee relations; emphasis on statulory enactments, underlying principles, contract writing and adminustration, 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 slatutory enactments, underlying principles, contract wrting and administration, and desirable practices affecting collective bargaining in education. Graded CR/VC.
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 faclfies and their interrelationships Lecture (3 units) required; 10 hours of administrative felated 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 faciliy management including accounting, purchasing, and supply management: evaluation, maintenance, and function of educational facilties and their interrelationships. Graded CR/NC.

## 545 Management Information Systems in Educationai Administration (3)

Prerequisite: Introductory computer course. Principles, practices, and procedures related to information management syaterss in educational administration; evaluation of systern requiraments, management of information maragement systems in educasonal administration.

## 545P Management Information Systems in Educational Administration (3)

Prerequisites: Admission to EDAD program, EDAD 545. Practical experience related to information management systems in oducational administration; evaluation of systems requirements. management of information management systems in educational administration. Graded CR/NC.
548 Seminar: Supervision of Instructional Programs (3) Prerequisite: Admission to EDAD program. Developmert of skils in educational supervision including observations, feedtack, conferences, indirect supervision, time logging: review of researcheffective 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 silla, techniques, and attitudes of successful instructional leaders in socicoulturally diverse schools.
552P Practicum: Instructional Leadership (3)
Prerequisites: Admission to EDAD program; EDAD 506;515 or EDFN 537 . Practical experience in applying skils, techniques, and attitudes necessary to be a suocessfut instructional leader in socioculturally divarse schools. Graded CRNC.
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 ressarch 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 relaton to staft deveiopment, operations, and eflective 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 urbs school operation, research on effective schools, and principles of adult learning for staff development. Graded CRNC.

## 567 Seminar: Current Issues in Educational

 Administration (3)Current issues in educational administration including education administration trends, legislation, research, and on-going schoc problems.

567P Practicum: Current Issues in Educational Administration (3)
Prerequisite: Admission to EDAD program. Pracical experience in researching possible solutions to issues facing school administrators. Graded CRNC.
572 Simulation Seminar: Elementary Administration (3)
Prerequisites: Admission to EDAD program, complotion of core and required courses in principalship option. Applicstion, 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 jurior 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 superviscry theories, structures, and methods to administration of high schools.

## 581 ABCD Field Work in Educational Administration $(2,2,2,2)$

Prerequisite: Division approval. Administratve, supervisory, and curricular experiences at school or dstrict leval. Graded CA/NC.
SB4ABCD 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 dthision 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 <br> 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)
Prerequisties: EDFN 500 or 509, instructor consent to act as sponsor, division approval of project prior to registration, Independent research under guidance of facutty. May be repeated tor 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 oredit.

## Courses in Educational Foundations (EDFN)

(Division of Edvcational Foundations and interdivisional Studies)

## 400-Level Courses

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

## Graduate Courses

Classified graduate standing is requited for admission, except that postinaccalaureate atudents may enroll in 500 -ievel courses that are raguirend in a credentia! 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 oontext of their respective cultures. Particular attention to multilingual/mulficultural 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 mullilinguatimulticulturat 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 Polities (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, poltical 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)
Prerequiste: 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 rescurce 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, school reform, federal and state aid, school personnel,

## 540AB Bilingual Education Models (3, 3)

540A: Design and implementation of language objectives for bilingual crosscultural 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 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 leachinglearning, 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 582. Current instructional methods for teaching second languages to students at intermediate through advanced levels (kindergarten through adulf), 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 evaluabing effectiveness of teacher-made tests and current standardized test instruments used for assessing language proliciency.
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 linguislic 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: COMO 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 bilingualicrosscultural programs at school or district level. Graded CRNC.

581 Bilingual/Crosscultural Advanced Field Work (2)
Prerequisites: Teaching credential, approval of bilingual/orosscultural advisory committee. Teaching in bilingualicrosscutural situations: demonstrating effective teaching techniques to teachers and parents; planning and conducting in-service meelings for teachers and paraprofessionals; critques 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 credt 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 advancad topics in feld: 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, pettioned graduate adviser for appointment of a thesis committee, and submitted tentative outline to thesis committee. Graded CRMC.

## 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)

(Owision of Curriculum and Instruction)

## 400 -Level Courses

All 400 -level courses may be appled foward master's degreet requirements except the following, subjodt to limits establishod by the division and approval of the graduate adviser: EDEL 400-404 465

## Graduate Courses

Classified grachuate standing is required for adimission, excapt finat postbaccalaureate students may enrollin 500 -level courses thar are required for a credential program.

## 511-551 Seminars: Research in Teaching Elementary School Subjects (4 each)

Prerequisites: EDFN 500, teaching experience. Analysis of research on instruction and learning, application of implications of research to the solution of classroom problems. An action research project. Including an extengive review of the literature, is required

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5 1 1 ~ R e a d i n g
521 Language Arts
541 Social Studies
531 Mathematics
551 Scionce
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## 525 Whole Language Across the Curriculum (4)

Prerequisites: EDEL 400, 401, teaching experience. Whole language instruction research base and applications, literature-besec action research project across the curriculum.

## S35 Seminar: Diagnosis and Remediation in Mathematics (4)

Prerequisites: EDEL 431, teaching credential, teaching experience. Causes of fallure to leam arithmetic; diagnostic procedures, remediation techniques, and clinical experience.

## 560 Design and Management of Early Childhood Public

 Educational Programs (4)Prerequisites: EDEL 461, 462, EDFN 530, FSCS 422 . Design and management of early childhood public educational programs; leadership, goals, budget, accountability, differentiated stafting. management, proposal writing, articulation.

## 563 Seminar: Issues and Trends in Early Childhood Education (4)

Prerequisites: EDFN 503, completion of or concurrent enrollment in last quarter of Early Childhood Specialist instructional credential or M.A. degree in Child Development, teaching experience with young children. Persistent problems in early childhood education, review of literature concerning problems in eafly childhood education programs.

## 580 Evaluation of Microcomputer Courseware for Elementary Schools: Mathematics and Science (2)

Prerequisite: EDCI 481 or EDEL 480. Development of evaluation criteria for microcomputer courseware, based on research; application of these criteria to mathematics and science software marketed for elementary school use.

581 Microcomputer Applications in Reading and Language Arts (2)
Prerequisite: EDEL 400 or EDIT 452 or 456 or EDSE 423 Evaluation of microcomputer soffware applications in reading and the tanguage arts.

## 589 Seminar: Elementary Education (4)

Prerequisite: Completion of or ooncurrent enrolment in last 10 units for M.A. degree in Education: Elementary Teaching option, Identification and analysis of problems and trends in urban elementary education.

## 590 Problems in Classroom Group Behavior (4)

Prerequisites: Teaching credential, feaching experience. Analysis of class behavior and techniques for changing behavior in problem situations; implications of current theory and research for classroom management.
594 Selected Studies in Elementary Education (1-4)
Prerequisite: Consent of division chair, Intensive study of designated problems in elementary education. May be repeated for credit as subject matter changes.
595 Advanced Field Work: Early Childhood Specialist Instructional Credential (5)
Prerequisites: EDEL 560, teaching credential, formal admission to Early Childhood Specialist instructional credential program. Specialized field work assigned on individual basis. Scheduled field work; futorial session required. 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

## Courses in Higher Education (EDHI)

## (Oivision of Soncial Education)

## 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; noninstructional responsibilities of faculty.

## 611 Seminar: Supervision in College and University Teaching (4)

Prerequisite: Post-master's degree standing. Review of research and practicas in higher education supervision of students; discussion of college/university student field and laboratory teaching assigniments and evaluation.

## 612 Program Proposal, Development, and Evaluation in Higher Education

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)

(Orvision of Educational Foundations and interctivisional Studies)

## 400-Level Courses

Al 400 -level courses may be applied foward master's degree requirements, subject to imits estabished by the division and apgroval of the gractuate adviser

## Graduate Courses

Classified graduate standing is requirad for admission excapt that posibaccalaureate students may anrori in 500 -ievel courses that are requined 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 prinoples 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)

Prerequisites: EDIT 451, 551, teashing experience. Organization and administration of audiovisual services; practices and trends in reference to operational problems, budgeting, evaluation and procurement of equipment and materiats, personnel, and physical facilities.
554A Video Technology in Education 1 (4)
Prerequisite: EDIT 451. Educational value and utilization of viceo technology in instructional settings; review and application of research, exploration of future uses of the medium. Lecture 3 hours, laboratory 2 hours.

## 5548 Video Technology in Education 11 (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 evaluafion; 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 sottware 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)
Prerequiste: EDIT 430. Survey of telecommunications hardware, software, curriculum materials, school-based projects and research in educational applications of telecommurications.
570 Research in Instructional Technology (4)
Prerequistes: EDFN 500; EDIT 430. Analysis of research in instructional technology. An action research project, including an extensive review of the literature, is required.
5701 Instructional Applications
570 S Special Education Applications

## Courses in Library Science (LIBR)

(Division of Educational Foundatians and intercivisional Studes)

## 400-Level Courses

All 400 -level courses may be apphied toward master's degree requirements. subject to Nimits establehed by the drvision and approval of the gracuate adviser.

## Graduate Course

Classified graduate standing is required for admission, except that posthaccnlaureato students may enroll in 500 - devel courses that are tequired for a credentiat program.

## 501 Computer Applications in School Library Media Centers (4)

Prerequisites: EDIT 430, LIER 401, Uses of computers in achool library media centers: library administration soltware programs. data base management, word processing, and utilization of com-puler-assisted instructional programs.

## Courses in Secondary Education (EDSE)

## (Divesion of Cumbutum and instruction)

## 400-Level Courses

All 400-fevel courses inay be applied foward master's degree requiraments except the following, subject to limits established by the division and approval of the graduate adviser EDSE 401, 421, $441,442 A B$

## Graduate Courses

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

## 520 Evaluation of Teaching Competencies in Metropolitan Schools (4) <br> (4)

Prerequisite: Two or more years of teaching experience. Emphasis on identfication of teaching competencies of prospective and practicing teachers, procedures for assessment and improvement ot competencies, and program implications for preservice and In-Service education of metropolitan feachers.
521 Teaching Effectiveness: Research and Application (4) Prerequisites: EDFN 500; at least one year of teaching experience. Analysis of teaching effectiveness, teview of research application of research findings to clasaroom 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.

## 523E Business Communication Prerequisite: OSBE 301 <br> \section*{523 S Social Studies}

524 Instructional Materials in Secondary Schools (4)
Prerequisite: Teaching credential. Survey, analysis, and utiization of secondary instructional materials for English, foreign languages, mathematics, natural and social sciences, and other secondary school subjects. Students may focus on a specife credential subject.
591 Problems of Metropolitan Secondary School Students (4)
Prerequisites: Secondary oredential, secondary teaching erperience. Consideration of typical and speciai problems of adolescents, with emphasis on their porception of such problems: investigation of selected aspects of adolescent attitudes, interests, and behavilor.

## 594 Selected Studies in Secondary Education (1-4)

Prarequisite: Consent of division chair. Intensive study of desig. naled probiems 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 concurent enroilment in final units of program for Master of Arts degree Option in Secondary Teaching Identification and analysis of persistent problems as they aftect 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 credis. 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 suparvision of thesis committee. Must be repeated to total of 5 units. Graded CR/NC.

## Courses in Special Education (EDSP)

(Divieion of Special Eductation)

## 400-Level Courses

Afl 400-level courses may be appoied toward master's degree requirements except the following, subject to limits estabishod by the division and spproval of the graduate adviser: EOSP 403, 407, 489

## Graduate Courses

Classified graduate standing is required for admission, except that posthaccalaureate sfudents may enrol in 500 -level courses that are required in a crectential program.

## 500 Seminar: Special Education (4)

Prerequisite: EDSP 400. Study of research relating to psychologcal 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 feld 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 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 exceptonal individuals including orthopedically, visually, feearing, and learning disabled, sexuality, social development and family-He education of the exceptional. Graded CR/NC

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

507 Adult Iliteracy (4) (also fisted as EDSE 507)
Nature of illiteracy among adults in the U.S.; impact of iliteracy upon career, social, and life stage develiopment, Implications for program planning:

## 508 Computer Applications in Special Education (4)

Prerequisites: EDIT 452, EDSP 403. Microcomputar 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 multicuituralbilingual exceptional students, issues in nondiscriminatory assessment, instructional strategies for mulicultural/bilingual special education students.

## 512 Seminar: Collaborative Consultation in Special Education (4)

Prerequisites: COUN 501; EDSP 402; also recommanded: 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 assessmert. planning, and implementation (intervention) of services for at risk and exceptional infants and young children

521 Communication Skills for Deaf: Theory (5)
Prerequisites: EDEL 400, 401; 402 or EDSE 401. Instruction of the deat, analysls 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 preschoot, 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. Moditication of elementary and secondary school subjacts 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
protoundly deaf children of preschool, primary, and intermediate academic levels.
540 Affective Development of Exceptional Individuals (4)
Prerequisite: EDSP 400 . Relationship of affective factors, 0.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 issuess; 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 psychoeducatonal 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 identitication, assessment. educational planning, and delivery of educational services, in public and private educational settings, to individuals with senous 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 leaming disabled, educable retarded, and behavior disordered.

## 560 Seminar: Edvcation 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 disabilies and those with multiple disabailiea, review of research on specific disabilites.

## 565 Advanced Problems in Education of Visually Handicapped (4)

Prerequisite: Complation of requirements for credential for teaching visualy 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 impairmentand its application to educational practice.
568 Adaptive Living Skills for Exceptional Individuals (4) Current issues and research in daily living and adaptive living skilis for visually handicapped, deat, physically and multhandicapped, including ooncept formation, spatial development, psychomotor slills, orientation and mobility.

## 575 Supervised Field Training in Orientation and Mobility for the Blind (5)

Prerequiside: EDSP 476. (Open anly to students in orentation and mobility training program.) Clinical training in orientaton processes and independent mobility lechniques 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. Ebological 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. Prinoples, problems, and methods of vocational development, work evaluasion and adjusiment, job training, and placement of retarded youth and aduils. Individual projects.
582 Problems of Severely Handicapped Individuals (4)
Prerequisite. EDSP 481. Issues and research relevant to curtent practices in education of severely handicapped individuals, including traimable 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 specia: education programs. Organization of locil, state, federal, and private agencies related to education of exceptional chidren.

## 597 Graduate Research ( $1-4$ )

Preraquisites: EDFN 500 or 509 , instructor consent to act as sponsor, Gnvision approval of projed prior to registration. Independent research under guidance of facuity. May be repeated for credit Graded CR/NC.
598 Graduate Directed Study (1-4)
Prerequites: 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 conterences with sponsor. May be repeated for credit.

## 5998 Thesis or Project ( $1-5$ )

Prerequisites: EDFN 599A, writen 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 CRNC

## 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, legistation, emphasis on research and ongoing school problems. Variable content; may be repeated lor 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 credii.

## 603 Research in Performance of Exceptional Individuals (4)

Prerequisite: Post-master's degree standing. Experimental and theoretical literature on learring style and performance of exceptional individuals.

504 Law and Handicapped Individual in School (4) Prerequisites: Post-master's degree standing, EDSP 501, Current issues related to legislation and litigation in special education; fights, due process, criminal justice, resource agencies.

## 620 Research: Hearing Impaired (4)

Prerequisites: Instructor consent. Intensive review of research relating to developmental processes in hearing impaired students and their relationship to language proficiency and school achievement.

640 Research in Education of Gifted (4)
Prerequisiles: EDSP 400,440. Intensive study of current research about giffed, talented, and creative; factors in intellectual development; experimental school programs.
650 Research on Psychological Characteristics of Handicapped Adolescents and Young Adults (4)
Prerequisite: Post-master's degree standing. Theories and research on handicapped adolescents and young adults: emphasis on learning and behavior disorders.

## 680 Research on Severely Handicapped (4)

Prerecuisite: 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

## 698 Graduate Directed Study (1-8)

Prerequisie: 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.
699 Doctoral Dissertation (4-8)
Prerequisites: Advancement to candidacy for Ph.D. degree, oonsent of an instructor to act as sponsor, division approval of topic prior to registration. Continuous enrollment required while student is working on dissertation.


## SCHOOL OF ENGINEERING AND TECHNOLOGY

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 fialds.

\author{

- Master of Science degree in Civil Engineering <br> - Master of Science degree in Electrical Engineering <br> - Master of Science degree in Mechanical Engineering <br> - Master of Arts degree in Industrial and Technical Studies <br> - 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 postions in industry, for positions as engineering teachers, and forfurtherstudy toward doctoral degrees.

## Admission to Engineering Programs

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

Consultation with a dopartment graduate advisar is required bofore any courses are attempted, to determine if deficiencies exist in undergraduate preparation, Students should provide transcripts al all undergraduate work, which will be retained by the adviaet MATH 4C2A, entifled Advanced Mathematies for Engineers and Physicists L , is required for all graduate programs in Engineering it not previously oompleted.

## TECHNOLOGY

The Department of Technology offers a Master of Arts dagree 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 centilicate program in Electronice Technology. This program is described in the undergraduats School of Engineering and Technalogy chapter. General regulations governing all credil certificate programs are included in the Undergraduate Study and Graduate and Postbaccalaureate Study chapters.
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## CIVIL ENGINEERING

## School of Engineering and Technology

## DEPARTMENT OFFICE

Engineoring 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 comprahensive 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 unis):
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 fullills the student's objoctives, and must have the approval of adviser and department chair.

| CE 560 | Structural Mechanics III (4) |
| :--- | :--- |
| CE 561 | Advancad 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 Traflic Flow Analysis (4)
CE 575 Urban Transportation Plarning (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 Hydraulics (4)
CE 587 Hydraulcs 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 angineering, 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.

## ELECTRICAL AND COMPUTER ENGINEERING

## School of Engineering and Technology

## DEPARTMENT OFFICE

Engineering and Technology A316
Phona: (213) 343-4470

## Master of Science Degree in Electrical Engineering

Requirements for the Degree ( 45 unis)
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 enginoering graduate adviser must be obtained before enrolling in any course.
Area of Specialization (24-37 unis):
Select a minimum of 24 units in 500 -level engineering courses; at laast 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 Powar Syatems (4)

EE 534 Power Systems Stability (4)
EE 536ABC Solid State Electronics I, II, III (4, 4-4)
EE 538 Linaar 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)
Electivas in Engineering ( $0-13$ units of 400 - or 500 -lewol courses) Electives in related fieids ( $\theta-21$ units):
MATH 402 A ( 4 units) must be included in these aloctives unless already completed.
Typical courses are:
MATH 402B, 474, 580
PHYS 426AB, 510 AB
Comprehensive Examination or Thesis ( 0,4 units):
ENGR 596 Comprahensive 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.

## 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 loast 24 in 500-level course5. A thesis or comprohensive 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.
Selact 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) 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 department requirements.

## TECHNOLOGY

## 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 <br> Industrial and Technical Studies

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

- Teaching; emphasizes advanced subject matter content.
- Technical: amphasizes advanced subject matter preparation.
- Supervision: emphasizes supervision, mainly dopartment lovel.


## Admission to the Program

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

## Requirements for the Degroe ( 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: Comprehansive Career Education for Industrial Studies and Vocational Edveation (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 esch:
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 496.
Addinional Electives (select 3-7 units in tochnology 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 Professionat: 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 prolessional 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 sutticient course work toward the vocational credential to provide a foundation for advanced study in the graduate degree program.
Requirements for the Degree ( 45 unis)
A total of 45 units is required, with at least 23 in 500 -fevel courses.
Fiequired Courses ( 13 units):
TECH 485 History, Philosophy, and Organization of Industria!
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 prolessional courses in the vocational feacher's subject matter specializstion. 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 (solect 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 maot statod prarecvisites. These programs are listed with the department's bachelor's degree curricula in the Undergraduate Programssection of this catalog. Regulations governing al certificate programs are found in the Undergraduate Study and the Graduate and Postbaccalaureate Study chapters.

# courses In Engineering and technology 

## Courses in Engineering (ENGR) suthevel Courses

At 400-lave' courses may be appeled toward master's degree tucurements, subject to limits established by the department and approval of the gractuate ackiser.

## Groduate Courses

Clessitied gradusfe standing is required for admission.
397 Graduate Rosearch (1-5)
Perequisites: 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 to maximum of 5 units. Graded CRNC.
598 Graduate Directed Study (1-4)
Prarequiste: Instruclor consent to act as sponsor. Independent, evercted study of advanced topics in the field, regular conferences wth the spensor. May be repeated for credit.
599 Thesis (1-4)
Prerequiste: Advancement to candidacy, instructor consent to act as sponsor, school approval of the topic prior to registration. tsependent research resulting in a thesis. Must be repeatod to maximum of 4 units, Graded CRNC.

## Courses in Civil Engineering (CE)

400 -level Courses
Af 400 Joval courses may be appoied toward mastars degroe requiremants, aublect to limite established by the department and approval of the gractuate achliser.

## Gracuiste Courses

Classived graduate standing is required for admission.

560 Structural Mechanics IIII (4)
Prarequisite: CE 460, Column analogy, moment distribution appled to nonprismatic members, elastic energy method applied to arches and curved members, influence lines for indeterminate structures and secondary stresses.

## 561 Advanced Structural Design (4)

Prerequiste: CE 461. Design of light gauge steel members, aluminum alloys, and timber. Plastic design. Optimum design principles and its applications.

## 562 Reinforced Concrete Design II (4)

Prerequisite: CE 462 . Creep and plastic flow of concrete. Theory and practice of ultimate strength design. Prestressed concrete structures.

## 563 Matrix Computer Analysis of Structures (4)

Prerequisites: CE 460, ENGR 490. Matrix methods applied to statically determinate and indeterminate structures, flexibility and stiffness methods, digital computer applications.
564 Numerical Methods in Structural Analysis (4)
Prerequisites: ENGR 490, CE 460 or 402 . Finite difference and finita-alement methods for structures; free and forced vibrations; bending, buckling of beams and plates; special applications.

## 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, equilibrum and movement of soil water, soil consolidation, settlement, and soil strength.

## 587 Foundations 11 (4)

Prerequisite: CE 467. Earth-pressure problems and problems of deep excavation; design of anchored bulkheads, colferdams, piles under lateral loads, underpinning.

## 569 Earth Structures (4)

Prerequiste: CE 467. Factors influencing design, explorations for loundations and construction processes, compactions, stability analysis, seepage control, earth dams.

## 570 Soll Dynamics (4)

Prarequiste: CE 467. Dynamic properties of soils, vibratory aftects 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 unirterrupted flow, weaving section and ramps; functional design procedures in development of an interchange.

## 572 Plates and Shells (4)

Prerequistes: CE 402, 480. Equations of bending of thin qlastic plates, energy method; approximate and numerical methods; theory of shells with application to tanks, roots, and pressure vessels.

## 574 Tratfic Flow Analysis (4)

Prerequisise: CE 370. Measurements and analysis of traffic flow characteristics: speed, density, flow, headway; statistical data analysis, time-space diagrams, tratficflow models, queuing theory. shock wave analysis, traffic models applications.

## 575 Urban Transportation Planning (4)

Prorequisite: CE 370 for Civil Engineering majors; permission of department chair for others. Travelforecasting, 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 bridgas, 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 modela.

582 Statistical Hydrology (4)
Prerequisites: CE 483, ENGR 209. Statistical and probability analysis of hydrologic processes. Application of correlation and regression method to hydrologic variables. Elementary time series analysis of hydrologic data.

## 583 Hydrology II (4)

Prerequisite: CE 483. Space-time characterstics and mechanics of rainfall, surface fun-off and infiltration. Theory of drainage basin dynamics. Low stream flow.

## 586 Open Channel Hydraulies (4)

Prerequisites: CE 387, MATH 215. Flow types, tlow profle 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, feflection, and reffaction; impulsively generated waves; effect of waves on coastel structures.

## Courses in Electrical Engineering (EE)

## 400 -level Courses

All 400-ievel courses may be apgived howand masters degree requivements, subject to limits established by the department and aportsval of the graduate actiser.

## Graduate Courses

## Classifed graduate standing is required for adinission

530 Linear Systems Analysis (4)
Prerequisites: EE 430, MATH 402A. Review of transtorm 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 4C2A. Comparative analysis of the following information transmission systems; AM, FM, PPM, and PCM. Introduction to statistical methods in analysis of information transmission systems.

## 5318 Principles of Communication Theory II (4)

Prerequisites: EE 531A, MATH 402A. Transmission and filiering of random signals. Causal and noncausal filters; communication of digital data in the presence of noise.
532 Detection of Signals in Noise (4)
Prerequiste: EE 531A. Techniques for detection of both known and unknown signals with unknown parameters in presence of noise. Discussion of hypothesis testing, likelihood funttions, receiver conligurations, 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 techriques for load flow.

## 534 Power System Stability (4)

Prerequisites: EE 438A, 533. Steady slate and transient stability of electric power systems; stability criterion; emphasis on digtal compiter techniques as applied to atability probloms 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 creuts; 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 5368. Applications of infegrated circuits; metal-oxide-silicon devices, optoalectronics.
538 Linear and Nonlinear Control Systems Theory (4) Prerequsites: EE 438B, MATH 402A. Analysis and design of advanced control systems, inclyding oplimal control; use of computar in control systems.

## 544 Digital Systems Design (4)

Prerequisite: EE 449. Advanced study of selected topics in digital systems design. Design automation lechniques; digtal simulation; computer elements.
547 AB Computer System Architecture $(4,4)$
Prerequisite EE 449. (EE 547A is prerequisite to 5478) Computational alporthms and the arithmetic processor, central control and microprogramming, input-output processors, data communication processors and time-sharing systams.
548 Digital Sampled Data and Logic Control Systems Theory (4)
Prerequisites: EE 244, 436B, MATH 402A. Artalysig and design of linear and nonlineat sampled dala, digital and logic control systems. Numerical control and on-line computer control systems.

## Courses in Mechanical Engineering (ME)

## 400 -level Courses

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

## Graduate Courses

## Classibed graduate standing is required for admission.

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

## 501B Advanced Mechanics of Rigid Bodies (4)

Prerequsite: 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 problem, thermoelasticity, nonlinear elasticity, applications in structural and machine design.
503 Design of Mechanical Systems and Products (4)
Prerequisife: ME 414. Principles of design, value criteria manufac turing and human factors; computer-aided simulation and analysis: synthesis of design.

504 Thermal Radiation (4)
Prerequisite: ME 406. Thermodynamics and physics of thermal adiation and its interattions with matter; formulation and solution of radiative transfer equations for surfaces and enclosures by means of exact, approximate, and numerical methods; applications is selected topics.

## 505 Heat Conduction (4)

Prerequiste: ME 406. Fundamentels of heat conduction, solution d/ 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 400 or 408 . Development of equations describing fluid motion and heat convection. Analytical and experimental resuts 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 fricfioniess fiow; 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, incompress ble and compressible laminar boundary layers, introduction to turbulent boundary layer theory. Heat transter and aerodynamic applications.
511 Vibrational Analysis II (4)
Prerequisite: ME 411. Analysis of multidegree offreedom system5, continuous systems, fandom 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 con-tinuous-time and discrete-time systems; controilability, observability, and stability of linear systemsi examples of mechanical thermal, fluid, and electrical systems.

## 522 Optimal Control of Mechanical Systems (4)

Prerequisite: ME 410 or 422 State space representation of con-tinuous-time and discrete-time dynarnic systems, problem statement of optimal control and performance index, maximum principle. design of linear optimal control systems, mechanical system examples.

## 525 Process Mass and Hest Transfer (4)

Prerequiside: 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, distilation, and desalinization.

## 528 Metalforming Science and Applications (4)

Prerequisite: ME 414. Nature and purpose of metahworking theory. determination of working loads, drawing and rolling of Hlar slabs and gtrips, deep drawing, extrusion, forging, punching and piercing. frietion 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

Aff 400 -level courses may be applied toward master's degree requivements, subject to limits established by the department and approval of the oraduate agiviser

## Graduate Courses

Clessified graduate stancing is required for admissiont

## 502 Modern Industry (3)

Preraquisites: 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 arder.

## 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 instruotional 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 unita.

## 599A Thesis or Project ( $1-2$ )

Prerequisdes 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.

## 5998 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
Devarment of Physical Education and Recreation/Leisure Studies

## CHILD DEVELOPMENT

## School of Health and Human Services

## PROGRAM OFFICE

Engineering and Technology A535
Phone: (213) 343-4590
The Master of Arts degree in Chïd Development strengtheres professional competence and prepares individuals for various leadership positions as child development specialists. Siudents may coordinate degree requirements with those for Early Childhood Specialist instructional and Community College teaching crodentials.

## Master of Arts Degree

## Admission to the Program

- Baccalaureato 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 undorgraduate mejor.
- Written statement of personal and professional goals recaived by the Child Dovelopment graduate adviser bolore 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 comploted course work in theorias of human development, issues and trends in child devalopment, and early chlidhood education

Students without a baccalaureate in Child Development or a closely related field must complete a 27 -unit prenequisite program before being admitted to the Child Developmentmaster's degree program. Further information is avallable in the Child Development olfice.

## Requirements for the Degree ( 45 units)

A total of 45 units is required, with at least 23 in 500 -level courses.
Aloquired core (27 units)
CHDV 500 Studying Chidren: Theories and Methods (3)
CHDV 501 Infants and Toddlers-Development and Care (4)
CHOV 502 Children Under Transitory Stress (4)
CHDV 503 Working with Parents (4)
CHDV 504 Research Methods with Childran 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 Dovelopment (4) or
EDFN 530 Advanced Study in Child Development (4)
CHDV 595 Graduate Fieid Work. (4)

Electives (12-15 units)
Studonts must select electives in consulation with a graduatt adviser to give meaningful support to their professional goais. The development of an individualized interdisciplinary program is essential. Students also seeking an Early Childhood Specialist credential should select electives in consultation with a credental adviser and a Child Development graduate adviser.
Comprehensive Examination or Thesis or Project (O 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 al course work on their program or thereatter and must comply with school and deparfmental requirements. A thesis or project, in leu of the comprehensive examination, may be undertaken upon approval by a Child Development faculty committee.

## Courses in Child Devolopment (CHDV) 400 -level Courses

With graduate adiaser approval, appropriate 400 -lever courses in Chid Development-cetated dsclplines may be applled toward toquivements for the master's degrete.

## Graduato Courses

## Classifiod graduate standing is racharad for admission.

500 Studying Children: Theories and Methods (3)
The foundation of graduate level study of children; major thacries of child development; issues and methods in current research.
501 Infents and Toddlers-Davelopment and Care (4)
Physical, cognitive, aflectivo davelopment, birth- 30 months; 6 rvironmental, cultural influences. Lecture 3 hours, laboratary 3 hours.
502 Children Under Transitory Stress (4)
Normal infants' and young children's efforts to cope with physical, situational stresses such as short-term hospitalization, death, serious ilness, separation from family, divorce, birth of sibling. Lecture 3 hours, laboratory 3 hours.

## 503 Working with Parents (4)

Parent education trends: theory, dynamics, implementation. programs, research, and community resources. Lecture 3 hours, laboratory 3 hours.

## 504 Research Methods with Children and Families (4)

Prerequisite: EDFN 452. Current research issues about children and tamilies; ways of studying children and families: observation, inferviews, questionnaires, testing; ethical issues; development and implementation of pilot research study.

## 505 Selected Topics in Current issues and Research in Child Dovelopment (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 nospitalization; assignments on individual basis. May be repeated to maximum of 8 units. Graded CR/NC.

598 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 ClinicalRehabilitative Services Credentialin 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 satisty 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 qualilying courses completed at Cal State L.A.
Forthe Audiologyoption, applicants must have a minimum cumulative score of 900 on the Verbal and Cuantlative sections of the GRE General Test. For the Speech-Language Pathology option, completion of COMD 458 or equivalent is requited. Students must meet with a faculty adviser belore beginning the graduate program.
Completion of the following courses or their equivalents is prereqvisite to admission to the program: COMD 400, 401, 402, 403 or $407,420,425,429,450,458,460 \mathrm{AB}, 461,462 \mathrm{AB}, 470-478 \mathrm{AB}$. Completion of COMD 469 is corequistie 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: COMD $400,401,402,450,460 \mathrm{AB}, 461$, and 462 AB . Rapetition of core courses is limited to a maximum of two attempts in the entire core.
Students are required to meet personal and protessional standards established by the department which include (but are not limited to): acceptable speech, language, and hearing; the capacity to accopt instruction; willingness to assume protessional responsibility for the walfare of clients; and the ability to relate well to clients, peers, and faculty. Students also must possess qualities of personal integrity, maturity, and sound prolessional judgment.

## Requirements for the Degree (minimum 45 units)

A minimum of 45 units is required, with at least 29 in 500 -levol courses. A comprehensive examination or a thesis is required.

- Audlology Optlon ( 45 units)

The Audiology option prepares studients to serve in various professional settings including:

- cininical settings such as hospitals, medical olfices, privale practice, rehabilitation clinics that require a master's degree or equivalent wth emphasis in clinical audiology, licensure in audiology issued by the state Board of Medical Quality As-
surance, and the Certificate of Clinical Competence (CCC) in Audiology issued by the American Speech-Language Hearing Association
- public school sellings 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 certicicate in rehabilitative audiology plus a master's degree or equivalent in rehablitative audiology
Required Courses ( 33 units):
COMD 500 Seminar: Amplitication Systems for Audiologists (4)
COMD 503 Seminar: Bone Conduction, Masking. Impedance Audiometry (4)
COMD 504 Seminar: Audiological Psychoacoustics (4)
COMD 505 Seminar: Special Auditory Tests-
Sensorineural Hearing Losses (4)
COMD 506 Seminar: Special Auditory Tests-
Contral Auditory Probiems (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 Centifcate of Clinical Competence (CCC) in audiology, including specified course work and clinical practicum in speech-language pathology which should be completed esrly 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 Deat Child (4)
Comprehensive Examination or Thesis ( 0,6 unis):
COMD 596 Comprehensive Examination ( 0 ) or
COMD 599 Thesis (6)
In conference with an adviser, students must alect complete either the comprehensive examination or a thesis.
A. Comprehensive Examination (0)

COMD 596 Comprehensive Examination (0)
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.

## B. Thesis (6 unis)

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 prolessional settings inctuding:

- 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. Iicensure in speech-language pathology issued by the state Board of Medical Quality Assurance, and the Certificate of Clinical Competence (CCC) issued by the Amenican SpeechLanguage Hearing Association
- pubbic and private schools as a language-speech and hearing specialist which requires a Clinical-Rehabilitative Services credential in Language. Speech, and Hearing
- public school progrants 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):

COMD 560 Seminar. Natural Acquisition of Language (4)
COMD $570 A B$ Graduate Studies in Stuttering $(3,3)$
COMD 571 Seminar: Language Disorders in Children (4)
COMD 572 Seminar: Voice Disorders (4)
COMD 573 Seminar Articulation Disorders (4)
COMD 574 Seminar, Neuropathologies of Speech and Language (4)
COMD 576 Advanced Diagnostic Procedures in Communication Disorders (3)
COMD 578 Advanced Clinical Procadures in
Communication Disorders $(2,2)$
Elective (4-6 untits):
In consultation with adviser, select one course ( $4-6$ units) from the following: COMD 454, 588,599
Additional Eleclives ( $6-8$ units):
Select courses appropriate for California licensure and ASHA certification with adviser approval
Comprehensive Examination or Thesis (0-6 units)
COMD 596 Comprehensive Examination (0) or
COMD 599 Thesis (6)
Students should expect to take the comprehensive examination (COMD 596) the quarfer 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 quarters the thesis is being undertaken.

## Clinical-Rehabilitative Services Credential in Audiology

## Requirements for the Credential (114 unis)

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COMD 400 Peripheral Hearing Mechanism (3)
COMD 401 Audislogical Acoustics (2)
COMD 402 Pure-Tone Audiometry (3)
COMD 403 Speech Audiometry (3)
COMO 407 Pediatric Aud ology (3)
COMD 420 Rehabilitative Audiology (3)
COMD 425 Management of Hearing Impaired Child (3)
COMD 429 Clinical Practice in Aural Rehabilitation (1)
COMD 450 Introduction to Communication Disorders (4)
COMD 460AB Speech and Language Acquisition in Children \({ }^{(3,3)}\)
COMD 461 Descriptive Phonetics (4)
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COMD 462AB Speech-Language Science (3, 3)
COMD 470 Clinical Processes in Communication Disorders (4)
COMD 471 Language Disorders in Children (4)
COMD 472 Voice and Articulation Disorders (4)
COMD 476 Diagnostic Procedures in Speech and Language Disorders (3)
COMO 500 Seminar: Amplification Systems for Audiologists (4)
COMD 503 Seminar: Bone Conduction, Masking.
Impedance Audiometry (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 507 Seminar Special Auditory Tests-Auditory
Brainstem Responses (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, 2.2)
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 431A Laboratory: Sign Language, Beginning (1)
EDSP 525 Language and Speech for Profoundly Deaf Child (4)

## Clinical-Rehabilitative Services Credential in Language, Speech, and Hearing

This credential requires 118 units of which 45 units must be completed in the fith year, including the 500 -level courses listed below. Students must earn a B ( 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)

COMD 400 Peripheral Hearing Mechanism (3)
COMD 401 Audiological Acoustics (2)
COMD 402 Pure-Tone Audiometry (3)
COMD 403 Speech Audiometry (3) or
COMD 407 Pediatric Audiology (3)
COMD 420 Rehabilitative Audiology (3)
COMD 425 Management of Hearing Impaired Child (3)
COMD 429 Clinical Practice in Aural Rehabilitation (1)
COMD 450 Introduction to Communication Disorders (4)
COMD 460AB Speech and Language Acquisition in Children $(3,3)$
COMD 461 Descriptive Phonetics (4)
COMD 462AB Speech-Language Science $(3,3)$
COMD 469 Role of Speech-Language Pathologist in Protessional Settings (1)
COMD 470 Clinical Processes in Communication Disorders- (4)
COMD 471 Language Disorders in Children (4)
COMD 472 Voice and Articulation Disorders (4)
COMD 476 Diagnostic Procedures in Speech and Language Disorders (3)
COMD 478 AB Clinical Procedures in Communication
Disorders (2, 2)
*COMD 490AB Language, Speech, and Hearing Service in Public Schools (1, 1)
COMO 560 Seminar: Natural Acquisition of Language (4)
COMD 570AB Graduate Studies in Stuttering (3, 3)
COMD 571 Seminar. Language Disorders in Chidren (4)
COMD 572 Seminar: Voice Disorders (4)
COMD 573 Seminar: Articulation Disorders (4)

COMO 574 Seminar: Neuropathologies of Speech and Language (4)
COMD 576 Advanced Diagnostic Procedures in Communication Disorders (3)
EDFN 413 Psychological Foundations of Education (4)
EDSP 400 Education and Psychology of Exceptional Individuals (4)
EDSP 403 Special Education Laboratory (1)
*COMD 480 Directed Teaching in Communication
Disorders (6,6)
PSY 412AB Psychology of Human Development: Childhood and Adolescence (4, 4)
*must be fakent concurrenty
The Speciar Class Authovization to Teach Seveve Language Handicapped Children requires an additional 28 units
COMD 480 Directed Teaching in Communication
Disorders $(6,6)$
COMD 585 Seminge Advanced Language Techniques for Severe Language Handicapped Children (4)
EDEL 400 Proseminar Curriculum and Teaching of Reading (4)
EDEL 401 Proseminar: Curriculum and Teaching of Mathematics and Language Arts (4)
EDSP 402 Curriculum Modification and Instructional Strategies for Exceptional Individuals (4)

## Certificate Program in Rehabilitative/School Audiology

This credi certificate program is designed to prepare rehabilitative/school audiologists who do not seek the California credential

## Admission to the Program

Formal admission to the program is obtained only at the graduate level, although students may complete 400 -level courses in the program while in undergraduate standing Requirements for admission are the same as those for the Audiology option for the Master of Arts degree in Communicative Disorders.

## Requirements of the Program (114 unts)

This program requires a total of 114 units and ublizes the same courses as the Clinical-Rehabilitative Services credentialin Audiol. ogy, described on the previous page. Students are cautioned to read descriptions of all required courses for prerequisites and to complete such prerequisites before enrolling in advanced courses.

## Courses in Communication Disorders (COMD)

## 400 -Level Courses

AN 400 -level coursats may be applied foward master's degree requirements, subject to limits established by the department and approvat of the graduate adviser.

## Graduate Courses

Classified graduale standing is required for admission.
500 Seminar: Amplification Systems for Audiologists (4)
Prerequisite: COMD 403. Electroacoustic characierissics of individual hearing aids and classroom amplification systems; assessment and fiting procedures, spectral analysis of hearing aids; troubleshooting hearing aids, foom acoustics; practical experience included.
501 Seminar: Amplification Systems for Teachers of Hearing impaired
Prerequisite. COMD 406. Appropriate hearing aids for specific hearing loss: types of group amplifiers commerobaily available for
classroom use; use of amplification in developing residual hearing.

## 503 Seminar: Bone-conduction, Masking, Impedance Audiometry (4)

Prerequisite: COMD 403. Advanced audiological theories, prinoples, and techniques; bone-conduction, effective masking and impedance audiometry for differentiating conductive from sensorineural hearing iosses; laboratory projects induded.
504 Seminar: Audiological Psychoacoustics (4)
Prerequisite: COMB 503. Relationships among acoustic stimulus parameters, aural physiological activities, and psychological sensations including loudness, pitch, adaptation, and differens limens; laboratory projects with audiometric equipment included.

## 505 Seminar: Special Auditory Tests-Sensorineural

Hearing Losses (4)
Prerequisite. COMD 503. Advanced audiological theories, principles, and techniques: psychoacoustic hearing tests for difterentiating cochiear from retrocochlear lesions, practice in administering special tests and interpreting test results.
506 Seminar: Special Auditory Tests-Central Auditory Problems (4)
Prerequisites: COMD 504, 505. Advanced audialogical theories, principles, and technques: psychoacoustic hearing tests for differentating peripheral from central hearing disorders; practice in administering advanced special tests and interpreling test results.

## 507 Seminar: Special Auditory Tests-Auditory Brainstem

 Responses (4)Prerequsites: COMD 504, 505. Advanced audiological theories. princples. techniques; physiological tests for measuring electric brainstem responses to acousfic stimuli; electronystagmyography. practice with brainstem sudiometer and ENG equipment.
510 Seminar: Audiological Instrumentation (4)
Prerequsite: COMD 505. Audiological instrumentation; calibration slandards; calbration instruments and procadures for earphones, bone vibrators, loudspeakers, pure tones, speech, masking noise; practice in calibrating audiometers.
541 Clinical Procedures in Hearing Evaluation (1)
Prerequisites: COMD 503. Practice in administering hearing sests, interpreting tests results, and writing audiological reports before working with patients in the Hearing Clinics.
542 Clinical Practicum in Hearing Evaluation (2)
Prerequisites: first quarter: COMD 541: second quarter. COMD 407, 500 , one quarter of clinic practicum; third quarter: COMD 505 , minimum B (3.0) grade point average in clinic courses compleled prior to eniollment, two quarters of clinic practicum; fourth quarter. COMD 506, 507, three quarters of clinic practicum; fith quarter for school audiology credenfial COMD 429, four quarters of clinic praclicum. Sequential progression of supervised clinical practice in heaning evaluations; on-campus Hearing Clinic for first two quarters: off-campus medical certer for next two quarters: public school for fith quarter.

## 547 Seminar: Audiology (3)

Prerequisite: COMD 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: COMD 460AB or 456. Research, methods, major issues in language acquisition in early childhood; methods for
studying semantic, syntactic, pragmatic, and phonological systems, peincipally among English-speaking chidren.

## 570AB Graduate Studies in Stuttering (3, 3)

Prerequisile: COMD 470. Theory, research, and methodology in assessment and treatment of stuttering in children and adults. Clinical practicum required. Enrollment in successive quarters required, Lecture 2 hours, laboratory 3 hours.
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; multethnic, multiculhural considerations.
572 Seminar: Voice Disorders (4)
Prerequisite: COMD 472. Theory, research, methodology in diagnosis and freatment 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 discrders associated with neuropathologies.
575 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, classfoom 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 fieid, 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 lopic before registration; additionat 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 CRNC.

## CRIMINAL JUSTICE

## School of Health and Human Services

## DEPARTMENT OFFICE <br> King Hall D1045 <br> Phone: (213) 343-4610

Two Master of Sclence degrees are offered by the Department of Criminal Justice. The Criminalistics degree affers a specialization in the application of sclence to the criminal justice process; the Criminal Justice degree includes an Administration option that emphasizes management akills and an education option that prepares students for specialized teaching assignments.

## Admission to the Program

Agplication to both the Department of Criminal Justico and the university is required, on forms available from the department's graduate admissions committoe. Transcripts from all cologas and universities attended must be submitted with the application to the department's graduete admissions committee at the same time that the university application is filed with the Admissions Ottice.

A minimum 2.75 grade point average is required in the last 90 quarfer units of undergraduate study, and a minimum 8 (3.0) in all upper division course work in the undergraduate major and all prorequisite and corequisite courses, Applicants who have not completed an undergraduate major in a criminal justioe 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 deparimenfal graduate admissions committee.

## Master of Science Degree in Criminallistics

The Criminalistics program is buit on undergraduate peeparation in chemistry and provides technical training in crime laboratory skils, with special emphasis on development of skilled experts able to function in a variety of scientific fields.
In addition to univarsity requirements for admission to graduate study, applicants must have a baccalaureate in chemistry from an accredited college or univarsity, or a baccalauroate in a related scientific fisld 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 to graduate study or may be taken concurrently. These courses are not included in the 45 unts required for the master's degree.
CRiM 126 Concepts of Criminal Law (4)
CRIM 221 Legal Aspecis of Evidence (4)
CRIM 235 Elements of Investigation (4)
CRIM 362 Investigative Photography (4)
CRIM 365 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.
Requifed Courses ( 32 unis):
CRIM 551-553 Advanced Criminalistics 1-1II (4, 4-4)
CRIM 554 Identification of Modern Drugs (4)
CRIM 555 Questionad Document Analysis (4)
CRIM 556 Seminar: Special Problems in Criminalistics (4)

## CRIM 557 Legal Medicine in Criminalistics (4) <br> 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 enforcament.

In addition to uriversity requirements for admission to graduate stucy, applicants must possess a baccalaursate from an eccredted college or university, with acceptable undargraduate preparation in police administraton or criminal fustice. Undergraduate proparaton must include the lollowing courses or equivalionts:
CRIM $126,221,401,404,428,437$
ECON 309 or EDFN 452 or PSY 302
POLS 403,405
SOG 480
Requirements for the Degree ( 45 units)
A total of 45 units is required, with at least 23 in 500 -level courses.
Fequired Courses (24 units):
CRIM 501 Seminar: Administration of Justice (4)
CRIM 506 Seminar: Comparative Criminat Justice
Administration (4)
CRIM 538 Seminar; Criminal Justice Problems (4)
CRMM SB1 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 unis):
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 Governmant and Administration (4)
Electives ( 5 unils):
Select courses in criminal justice with adviser approval

- Option In Criminal Justice Education (21 units)

Students pursuing this option should seek advisement in the appropriate divisions within the School of Education as well as the Dapartment ot Ciminal Justice.
Required courses ( 15 units):
COUN 503 Sociological and Cultural Factors in Counseling (4) COUN 510 Courseling 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 appied foward master's degree requirements except the following, subject to fimits established by the department and approval of the gracuate 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 managenal 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: miltary 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 scienslic method and acquainlance with reliable methods of research.
551-553 Advanced Criminalistics I, II, III (4, 4-4)
Mathods of sciertific analysis, comparison, identification, and individualization of physical evidence and its presentation in court. Lecture 2 hours, laboratory 6 hours.

551: Prints and imprinis, tool marks, weapons, bullets, and cartridges.

552: Microscopic evidence, textile fibers, ciothing and cloth, ropes, cordage and packing materials, cosmetics, crystalline evidence, paint, glass, soil, metals, and plastics.
553: Hair, blood, biological fluids, blood alcohol, arson evidence, bombs, and explosives.

## 554 Identification of Modern Drugs (4)

Prerequisite: Instructor consent. Nature, therapeutic action, tovioology, chemical and physical identification of modern drugs; olug nomenclature; scientific, official, and trade names; drug classifications.

## 855 Questioned Document Analysis (4)

Prerequisite: Instructor consent. Analysis of handwriting, typewriting. lnks, paper, forgeries, alterations, erasures, use of photographic, microscopic, intrared, and ultraviolet light equipment; presentasion 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 lield, 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, sime of death, rigor mortis, post mortem lividity, recognition of poison deaths.

## 581 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 aroa of criminal justice. May be repeated to maximum of 8 units. Graded CP/NC.

## 598 Graduate Directed Study (1-5)

Prerequisise: Instructor consent to act as sporsor. 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 588 may be applied toward degree.
599 Thesis (1-4)
Prerequisites: Consent of an approved thesis committee to act as aponsor, completion of appropriate forms, approval of department. Independent research resulting in a thesis. Must be repeated to maximum of 4 units. Graded CANC

## Courses in Traffic and Safety Education (TSE) 400 -level Courses

AN 400-level courses may be applied toward master's degree requirements except the following, subject to innts estabished by the department and aporoval of the graduate adviser: TSE 475

## Graduate Courses

## Ciassified gratuate standing is requived for admission.

575 Analysis of Accident and Safety Programs (4)
Prerequisite: TSE 475. Satety programs and evaluation strategies; includes analysis of data relevant to traffic, occupational, and public salety programs.
577 Advanced Studies in Traffic and Safety Education (4)
Prerequisites: TSE 474, 475. Analysis of latest developments and trends in satety and trattic education relating to driver education and driver training programs.

## 578 Legal Aspects of Driver Education and Driver

 Training ( ${ }^{4}$ )Prerequisiles: 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 Famly Studies and Consumer Sciences: the Master of Arts in Home Economics and the Master of Science in Nutritional Scionce.

## Master of Arts Degree in Home Economics

The Master of Arts degree in Home Economics is designed to strengthen prolessional competence and to prepare students for leadership positions in teaching, community agencies, and con-sumer-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 moot 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 equivalont, or a major in a rolated fleld 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 -leval courses. All programs must be approved by the department graduate studies commitiee.
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 Comprahensive Examination (0) or
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 Mastor 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 quality for the Registered Dietitian examination may complete appropriate course work and clinical experiences concurrently with requirements for the mastar'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 accredted universify. 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 complote 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 loast 23 in 500 -level coursas. 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 Distetics (3)
FSCS 577 Research Concepts in Home Economics (4)
FSCS 597 Graduale Research (4)
Select one from following (4 units):
FSCS 510 Research Methodology in Food (4) or
FSCS 511 Research Methodology in Nufrition (4) or
FSCS 512 Research Methodology in Dietetics (4)
Soloct 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 Fieids (0-9 units):
Select with approval of adviser and department graduate studies committee.
Comprehensive Examination or Thesis or Project (0-6 units):
FSCS 596 Comprohensive 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

A0 400 -level courses may be applied toward master's degree requirements except the following, subject to limits estabished by the department and approval of the graduate actiser FSCS 414C, 419ABC, $419 \mathrm{~S}, 479$

## Graduate Courses

Classifed gracuate standing is required for admission.
501 Experimental Fashion Design (3)
Prerequisite: FSCS 401. Theory of tashion design and its applicafion; creative designing through experimentation. Lecturelatoratory 6 hours.

## 502 Readings in Sociopsychological Aspects of Clothing (4)

Prerequisites: FSCS 302 basic courses in psychology and sociologylanthropology. Clothing as an aspect of human behavior. theories and research in social sclences 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 - of 500 -level textles andior clothing courses. In-depth study of selected topics in textles. and olothing.
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)
Prerequisife: FSCS 417A. Research problems in nutrition. Lecture 2 hours, laboratory 6 hours.
512 Research Methodology in Dietetics (4)
Prerequisite: FSCS 415. Research probiems in dietebics 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)

Prerequiltes: FSCS $410,415,417 \mathrm{ABL}$. 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, tood, and dietetics.

## 529 Seminar: Child and Family Development (3)

Prerequisite: Upper division chidd/lamily course. Child and family development, integrating developmental research and theory.

## $\$ 30$ 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.

## 541 Theory and Philosophy of Home Management (4)

Prerequisite: FSCS 341. Philosophical and conceptual develogment of home management; analysis of theoretical tramework; research and implementation techniques.

## 549 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.
569 Seminar: Housing and interiors (3)
Prerequisites: FSCS 577, two upper division housing and interiors courses. Advanced selected topics in housing and interiors.

## 573 Problems in Home Economics Curriculum (4)

Prerequisites. Baccalaureate in home economics or related field; 40 home economics units. Current concepts, developments, frends in hame economics curricula; application to specific tasks. in curriculum development.

## 577 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 critque of research reports, development of a research proposal and a pilot project.

## 595 Field Work in Family Studies and Consumer

Sciences (2-4)
Prerequisites: Department approval, agency/business acceptance, 23 units in FSCS master's degree program. Supervised experience at supervisory levet, four hours per week required for each unit May be repeated to maximum of 6 units; combined 495 . 595, 597.598 .599 unils may not exceed 15. Graded CRNC.

## 597 Graduate Research (1-4)

Prerequisites: FSCS 577, instructor consent to act as sponsor, department approval of project before registrason, Independent research under faculty guidance. May be repeated to maximum 8 unils: combined 597/598 units may not exceed 12 units; combined $595,597.598 .599$ units may not exceed 15. Graded CR/NC.
598 Graduate Directed Study (1-4)
Prerequisite: FSCS 577, instructor consent to act as sponsor, department approval of topic before registration. Supervised study of advanced topics. May be repeated to maximum of 8 units; combined 597 and 598 units may not exceed 12 units; combined 595, 597, 598, 599 units may not exceed 15.

## 599 Thesis or Project (1-6)

Prerequistes: 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, aral thesis defense required. May be repeated to maximum of 9 units; compined $595,597,598$, and 599 units may not exceed 15 . Graded CR/NC.

## HEALTH SCIENCE

## School of Health and Human Services

DEPARTMENT OFFICE<br>Enginearing and Tachnology A505<br>Phone: (213) 343-4740

The Master of Arts degree in Health Science provides advanced proparation in health sciences and salety 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

## Admisslon to the Program

Prerequisites (9 units):
HS 350 Health Maintenance Problems (3)
HS 360 Selecting Heath and Medical Services and Products (3) HS 463 National and international Health Problems (3)
Applicants must have a baccalauroato from an accredned institution with sutlicient 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 unis)

A total of 45 units is required, wath at least 23 in 500 -level courses. Required Courses (14 units):
HS 530 Research Dosign in Heath Science (4)
HS 560 Administration of Health Science Education (3)
HS 580 Seminar: Heath Science Research (4)
HS 591 Advances in Heakth Science Education (3)
Electives (seiect 16-30 HS units with adviser approval)
Electives in ralated fiaids (select 0 -14 units with adviser approval)
Comprehensive Examination or Thesis or Project ( 0,6 units):
HS 596 Comprehensive Examination (0) and
HS 598 Graduate Directed Study (1-4) or
HS 599 Thesis or Project (6)
Students should expect to take the comprehensive examination (HS596) the quarter they complete all course work on their program and must comply with school and departmental requirements.

## Courses in Health Science (HS)

## 400 -level Courses

Al 400-level courses may be applied toward master's degree requirements except the following, subject to imits established by the dopartment and approval of the gractuate adviser: HS 401

## Graduate Courses

Classified graduate standing is required for admission.
530 Research Design in Health Sclence (4)
Prerequisite: A four-unit, upper division statistics course. Examination of research methodology within a concoptual framework of health science; utilization of the tools of research.

## 540 Analysis of Health Care Dalivery Systems (4)

National and infernational health care delivery systems, ther historical development, objectives, designs, systems components; personnel, facilities, financing, and utlization problems; futurn patterns in health care delivery systems. Field visits may be required.
550 Health and Safoty Risk Management (4)
Component analysis of healith facility and industrial risik 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 Salety Education (3)
Organization, content, and evaluation of heath and salety aducation programs; administration and supervision in official and nonofficial agencies.

## 570 Health Appraisal and Guldance (4)

Developing skills in reoognizing healith problems; choosing appropriate procedures for screening programs; implementation of appraisal lindings through approptiate health guidance tackniques.
580 Seminar: Health Sclence Research (4)
Prerequisite: HS 591. Analysis of and research in healih science.

## 591 Advances in Health Education (3)

Prerequisite: HS 530. Analysis of selected contemporary problems in health science.

## 595 Field Study in Health Science (1-6)

Prerequisites: Departmental approval, agency acceptance. Supervised individual field experience in an applied area of health of salety. May be repeated to maximum of 8 units. Graded CRNC.
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 CRNC.

## 598 Graduate Directed Study (1-4)

Prerequisite: Instructor consent to act as sponsor. Independent study of advanced topics in field; regular confetences with sponsor. May be repeated to maximum of 6 units.

## 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.

## NURSING

## School of Health and Human Services

## DEPARTMENT OFFICE

Simpson Tower F417
Phone; (213) 343-4700
The Master of Science degree in Nursing provides advanced study in the following four areas:

- Nursing Administration
- Nursing Education
- Home Healh Care Administration
- Clinical Nurse Specialization (Adult, Parent-Child, PsychiatrioMontal Healh)
Advanced clinical study also is provided in adut nursing, family nursing, or home heath care nursing. Field study assignments are directed toward meeting individual goals of students relative to their clinical specialization and functional interest.
Students seaking the credential to teach rursing in community colleges should consult the Coordinator of Community Colloge 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 Sclence Degree

## Admission to the Program

- Applicants must fuifil the following prarequisites and criteria:
- Equivalent of requirements for Bachelor of Science degree in Nursing from an NLN-accredited program in effect at the time of admisson 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 (prerequistle to NURS 490):
- Malpractice insurance for professional nursing practice.


## Admission to Accelerated Master's Program

L. 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-accroditod diploma program;
- Completion of current B.S. degree in Nursing course prereq. uigites;
- 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 clnical employment as an RN belore 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 classilied graduate standing.


## Baccalaureate Course Requirements

(as bactekers degree is conlerred in inis acooleratod masters dogeve pegamen ony 10 shidents who hall isurrest general edtucation nequiremenas)
Required in Related Fieids ( 53 units)
ANTH 444 Medical Anthropology (4)
BICL 200AB Human Anatomy and Physiology L II $(5,5)$
CHEM 151, 152 Fundamentals of Chemistry I, il ( 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 Sciencas (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
"Sudents enteving with 2 or more sumepter coity (4 1/2 quarler units of aredi for * couse in general nutivon fon arr accredied college or diflome program satsly. Shis recuirmment by bavslor creolt
"Siudents antering with 4 or move sempetior initr for or move quater unibl of orwdit tom an acorectied oolege for a course including laboraboy satisfy ith cequirament by pansfer 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 quartar of 300 -level nursing courses.
Upper Division Required Courses ( 30 units):
NURS 302 Coping with Chronic lliness and Aging (3)
NURS 304 Coping with Selected Problems of Illness and Disablity (3)
NURS 342 Nursing Process: Self-Care (2)
NURS 343 Nursing Process: Sell-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)
Cilinical 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 enroliment in clinical electives.

| NURS | $400+401$ | NURS | $442+443$ |
| :--- | :--- | :--- | :--- |
| NURS | $403+404$ | NURS | $456+457$ |
| NURS | $430+431$ | NURS | $474+475 A$ or 475 ( |

ll. 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 prereq. uisites
- Current license to practice nursing in California: and malpracice insurance for protessional nursing practice
To quality 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


## Aequirements for the Bachelor's Degree Major

A total of 186 units is requited 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 unils)
ANTH 444 Medical Anthropology (4)
BiOL 200AB Human Anatomy and Physiology 1, 11 ( 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)
*MICR 202 Microbiology Laboratory for Health Related Sciencas (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

* 5 tudents entering wim 3 or mpeg semester unts $141 / 2$ quarter unisi of credt iov a course in ganeral nuthion from an accrectied colege or dpiome progyan satisly thes requement by frarsler credi
- Stucents entering with 4 or more semestor untar fo ar morr quaver units) af crede fom mo accuplind sollege for a courso inclating Atabovalary satsfy inis regurement by havater coede


## 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 andfor the last natural science course concurrent with the first quarter of 300 -level nursing courses.

Upper Dvision Required Courses (33 units):
NURS 302 Coping with Chronic Iliness and Aging (3)
NURS 303 Nursing Process Laboratory: Chronicity and Aging (3)
NURS 304 Coping with Selected Problems of lliness and Disablity (3)
NURS 342 Nursing Process: Selt-Care (2)
NUAS 343 Nursing Process. Sell-Care Laboratory

NURS 344 Coping with Loss (3)
NURS 345 Nursing Process Laboratory: Home Health Care (3)
NUAS 372 Physical Assessment (3)
NURS 373 Physical Assessment Laboratory (1)
NUAS 390 Introduction to Nursing Research (4)
NURS 470 Fanily and Community Health Assessment (4)
NURS 471 Family and Community Healh Assessment Laboratory (3)
CInrical 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 |
| :--- | :--- | :--- | $442+443$

## 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.
Requared 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)
Advanced Clinical Area (7 units)
Select one of following nursing seminars:
NURS 504 Seminar: Adult Nursing (4) or
NUAS 574 Seminar: Family Nursing (4) or
NURS 581 Seminar; Home Health and Community Systems (4)
and
*NURS 595 Advenced Field Study (3)
*Mar he Lakent weth dach semmar
Functional Areal (7-20 units)
Select one of following areas:

## NURSING ADMINISTRATION (T 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 Eep maven wth NURS 564

NURSING EDUCATION ( 7 units)
NURS 560 Development of Educational Programs in Nursing (4)
*NURS 595 Advanced Field Study (3)

- Must be lasen wth NUA5 560

CLINICAL SPECIALTY (20 units)
Required Course (2 units)
NURS 568 Clinical Nurse Specialty. Aole Development (2)
Select one sequence from following ( 18 units):
NUFS 506A Seminar: Advanced Theoretical Foundations of Adult Care (2) pius
NURS 5068 Seminar: Advanced Clinical Assessment of the Adult (2) plus
NURS 506C Seminar: Advanced Adult Patient Management (2) or
NUAS 520ABC Seminar: Parent-Child Nursing $(2,2.2)$ or

NURS 542ABC Seminar: Psychiatric/Mental Health
Nursing ( $2,2,2$ ) pits
*NUAS 595 Advancead. Field Study (4, 4, 4)
 tolowing for a totar of ta ands.
HOME HEALTH CARE ADMINISTRATION (T4 Units)
NURS 582 Seminar. Home Hearth System Management (4)
NUAS 583 Seminar. Home Health Care Administration (4)
"NURS 595 Advanced Field Study (3, 3)
**Mast be folen wah MLAS 592 and 583
Electives (select 5-15 units with adviser approval)
Comprehensive Examination or Thesis or Project (0, 5 units):
NUAS 596 Comprehensive Examination (O) or
NURS 597 Gradisate 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 requiremerts.
Sludents whe elect the thesis or project option (NURS 599) must somplete 2 units ofNURS 597 prior to the required 3 units of NUAS 599.

## Health Services Credential: School Nurse Services

State of California credential requirements for a clear Heaith Services credential include a tith year of study, completed atter the baccalaureate, consisting of a minimum of 45 quarter units. The program leads to certification as a school nurse for professional employment in Califorria public schools.
Students may fulfil the requirement of 180 olock hours of scheol 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 satislactory performance.
Requirements for the Credential ( 45 units)
Required Courses ( 36 units):
NUAS 372 Physical Assessment (3)
NURS 373 Physical Assessment Clinical Laboratory (1)
NURS 423 Nursing in School Heath 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

NUFS $430,442,456,460,462,464,468,474,490,590$
ART 410
COMD 400, 401
CRM 439
EDAD 509.510
COUN 405AB, 406, 460
EDFN 452
EDSP $440,460,462,465,515$ FSCS $413,420,423$
HS 401, 444, 455, 460 HS/NURS 482
PSY 412AB
SOC 460

SW 476
SPAN 110

## Courses in Nursing (NURS)

## 400-level Courses

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

## Graduate Courses

Classitied 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)
Prerequisce NURS 592; 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, appropriate clinical experience; corequisite: NURS 595 . Theories and research related to pathophysiological dysfunction and human responses to iliness using hospitalzed adult patients with acute, potentially progressive, or complicated chronic health-related difficulties.

## s06B Seminar: Advanced Clinical Assessment of the Adult (2)

Prerequisite/corequishe: NUAS 506A; corequisite: NURS 595. Advanced comprehensive assessment of acutely or chronically it hospitalized adult palients.
506 C Seminar: Advanced Adult Patient Management (2)
Prerequisite or corequisite: NUAS 506 ; corequisite: NURS 595. Advanced adult patient management and other collaborative strategies used by clinical nurse specialists in acute health care seting
S20ABC Seminar: Parent-Child Nursing ( $2,2-2$ )
Prerequisites: NUAS 574, instructor consent; corequisite: NURS 595. Theoretical approach to health care of families with healliy intants, children, and adolescents and those experiencing developmental problems, illness, child abuse and neglect, and death.

## 542ABC Seminar: Psychiatric Mental Health Nursing (2, 2, 2)

Prerequisite: 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 psychiatricimental health nursing interventions.

## 546 Mental Health Consultation in Nursing (4)

Prerequisites: Courses from undergraduate program or appropriale experience, NURS 574, SOC 472 ; corequisite: NUAS 595 . Theory basic to process of mental health consutation as it applies to ad hoc crises and case consultation.
560 Development of Educational Programs in Nursing (4)
Prerequisites: NUPS 592, EDFN 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

Analysis of procedures in health care personnel practices: licensure, recruitment, hiring, staffing, continuing oducation, performance evaluatoo, incentive plans, changing roles among healith care personnel.
564 Seminar: Health Care Administration (2)
Corequisite: NURS 595. Administrative issues in health care settings: goal complexity, power distribution, administrativeprotessional confict, 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, oonsultative, 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 patientifamily systems operate and intoract; analysis of systems, their functions, and regulatory constraints.

## 582 Seminar: Home Health System Management (4)

Pterequisite: NURS 581, corequisite: NURS 595. Management and leadership theories and apolication in home healm 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 lor 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 (

Prerequisites: NURS 490, insiructor consent, Major theories underlying nursing practicel'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 NUAS seminar selecled from 504,506 ABC, $520 \mathrm{ABC}, 542 \mathrm{ABC}, 546,560,564$, and 574 or enrolment in MS-Health Care Management program. Expenence in specialized clinical and functional areas assigned on an individual basis. Weekly tutorial sessions required for studentteacher 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 sponsot: Independent research under guidance of faculty sponsor. May be repeated for credit. Graded CRNF 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 tcpic prior to registration. Independent research resulting in a thesis or project. Must be repeated to maximum of 3 units. Graded CR/NC.

# PHYSICAL EDUCATION AND RECREATION/LEISURE STUDIES 

## School of Health and Human Services

## DEPARTMENT OFFICE <br> Physical Education 206 <br> Phone: (213) 343-4650

The Mastar of Arts degree in Physical Education is designed to provide teachers and administrators with experience in analyzing critcally the problems in testing, programming, administering, and leaching 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 eloct ono of three areas of specialization: Administration and Instruction, Exercise Science, or General Ptyssical Education. The specific coursas included in the masler'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 unids.

## Requirements for the Degree ( 45 unts)

A fotal of 45 units is required, with at least 23 in 500 -level courses. PE 401 ( 4 units) is required of all students for advancoment 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 laken in the first quarter of enrollment in 500 -level courses.
Requirud Courses ( 9 units):
PE 502 Seminan: Research in Current Literature (3)
PE 504 Seminar: Historical and Philosophical Bases of Physical Education (3)
PE 506 Seminar: Current lssues in Physical Education and Sport (3)

## Arsa 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 Sclence (12-13 units)

Required Course ( 3 units):
PE 520 Experimental Design in Physical Education (3)
Select 3 courses from following ( $9-10$ units):
PE $521,522,524,528,529,532,535,536$.

- General Physlcal Education (12-13 units)

With adviser approval, select PE courses from the above two areas of specialization.


#### Abstract

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 ( $\$$ ) Students who select the comprahensive 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 axcept special topics courses.


## Courses in Physical Education (PE)

## 400 -level Courses

Al 400 -hevel courses may be appliod foward mastor's degroe requirsments excopt the following, subject to limitr established by department and approval of gradvate ackiser: PE 498,499

## Graduate Courses

Classitied graduate standing is requirad 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, bastic beliets, and programs of physical oducation.
506 Seminar: Current Issues in Physical Edvcation and Sport (3)
Preroquisite or corequisite: PE 502. Advanced study of selected contemporary issues in physical education and sport; prolessional 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) Prerequiste or corequisite: PE 502. Concepts of establishing and maintaining programs of Iftetime sports in educational settings.
515 Seminar: Program Planning in Physical Education (3)
Prerequisite or corequisite: PE 502. History, background, phiosophy, 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.

## 517 Seminar: Administration of Athlotic Programs (3)

Prerequisite or corequisite. PE 502. Orgarization and administration of athietic programs at secondary and university levels.
520 Experimental Design in Physical Education (3)
Prerequisites: PE 439; 502 (may be taken concurrenty) Applications of experimental design procedures to plysical education; emphasis on practical approaches to communication of research findings, including on-line computer analysis.
521 Seminar: Physical Conditioning (3)
Prerequisite or corequisite. PE 502. Various methods of physical conditioning for physical education programs at elementary, secondary, and college levels. Lecture 2 hours, laboratory 3 nours.
522 Seminar: Exercise in Stressful Environments (3)
Prerequisies: PE 400B: 502 (may be taken concurrently. Capacity to exercise in environments of heat, cold, air pollution, allitude, air and water pressure; adaptation techniques during exercise.
524 Seminar: Advanced Kinesiology (3)
Prerequisite or corequisite: PE 502 . Anatomical and mechanical characteristics of complex human motar skills.

## 52 a Seminar: Motor Learning (3)

Prerequisite or corequisite: PE 502. Nature bases, and characteristics of human movernent and acquifing of motor skils.
529 Seminar: Selected Topics in Sports Medicino (3)
Prerequisites: PE 400AB, 502 (may be taken concurrently). Selected contemporary topics in sports medicine. May berepeated as topic changes to maximum of 9 units.
532 Concepts of Sensory-Motor Processes (4)
Prerequisites: PE 450; 502 (may be taken concurrently). Neurophysiological concepts of sensory-motor processes; theoreticai models, assessment techriques, practical applications tor exceptional individuals, Lecture 3 hours, laboratory 2 hours.
535 Leadership Perspective of Adapted PE (3)
Prerequisite or corequiste PE 502 Advanced techniques for staft, program, curriculum development in adapled physical education; elfect of current legistation on role of adapted physical educator: design and development of curricular materials; staff development.
536 Seminar: Problems in Adapted PE (3)
Prerequistes: PE 450,502 (may be taken concurrently). Ini dividual investigation of problems in administration, supervision, instruction, cumculum, evaluation of adapted physical education.
598 Graduate Directed Study (1-3)
Prerequisites: PE 502 , instructor consent to act as sponsor. Independent study of advanced topics in field; regular conferences with sponsor. May be repeated to meximum of 9 units. Graded CRNC.
599 Thesis or Project (1-5)
Prerequisites. Advancement to candidacy, instructor consent to act as sponsor. Independent research resulting in a thesis or project. Must be repeated to maximum of 5 units. Graded CR/NC.

## Courses in Recreation (RECR)

## 400 -level Courses

> Alf 400 -level courses may be appled toward masters degree requilements except the following, subject to imits astabished by
> department and approval of graculate acviser. RECF 480.495

## Graduate Courses

Classified graduate standing is required for admission.

## 522 Seminar: Recreation in Public Education (3)

Prerequisite: RECR 566. Uses of educational resources for recreation and community living; after-school programs, summer programs, school camping, outdoor education, adult education.
524 Seminar: Current Problems in Recreation/Leisure (3) Prerequisites: Advancement to candidacy, 12 units of 500 -level RECA courses. Current problems in recreation and leisure.

## 532 Construction and Maintenance of Parks, Playgrounds, and Recreation Facilities (3)

Prerequisite: RECR $412,422,423$, or 424 ; recommended corequisite: 566 . Standards for site selection, development, tacilities, and equipment; operating and maintaining buildings and grounds.

## 542 Recreation for Special Groups (3)

Prerequisite RECR 472; recommended corequisite: 566 . Backgreund and techniques nocessary for initiating racreation program of tehabilitation for mentaly and physically it or handicapped.

## 562 Seminar: Surveys and Recreation Planning (3)

Prerequiste: AECR 566. Planning for recreation services and tacilies based on studies and surveys: scope, content, objectives, procedures, and types of recreation surveys.
564 Seminar: Legat Financial Aspects of Recreation (3) Prerequisis: RECR 566. Interpretation of state statutes aflecting recreation: special attention to contractual agreements, leases, and torts; analysis of fundamental principies and rules goverring putbic recreation finance.
566 Seminar: Administration of Public Recreation (3)
Prerequisite. RECR 412 or 423 . Analysis of administrative duties and responsibilities: suggested approaches and methods of administration proved by actual experience
578 Internship in Recreation or Leisure Service (1-3) Prerequisites: RECR 566 , advancement to candidacy, a minimum of 12 units of 500 -level RECR courses, recommendation of principal graduate adviser and program coordinator, and consent of an approved recreation or leisure agency to provide required ex. perience and supervision. Directed field experience in administraBion of recreation and leisure services.
582 Seminar: Research Design in Recreation/Leisure (3) Prerequisite. RECR 492. Application of appropriate methods and lechniques of research design to proposed individual investgations in recreation or leisure: before completion, students complefe and submit tentative outline to graduate committee for approval as topic for RECR 597, 598, or 599.

## 597 Graduate Research ( $1-3$ )

Prerequisites: RECR 582, advancement to candidacy, graduate commitiee approval, instructor consent to act as sponsor before registration. Independent research under guidance of faculty. May be repeated to maximum of 6 units; combined total of 6 units in RECR 597. 598, and 599 applicable to degree. Graded CRNC.

## 593 Graduate Directed Study (1-3)

Prerequisite: Instructor consent to act as sponsoc. Independent study of advanced topics in the field; regular conferences with sponsor. May be repeated for credit.

## 599 Thesis or Project (1-3)

Prerequisites: RECR 582 , advancement to candidacy, approval of graduate committee, appointment of thesis committee by program coordinator prior to registration. Independent research resulting in a thesis or project Must be repeated to maximum of 3 units. Graded CRANC.

## SCHOOL OF NATURAL AND SOCIAL SCIENCES

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

## SCHOOL OF NATURAL AND SOCIAL SCIENCES

## GRADUATE COORDINATOR'S OFFICE

King Hall D1051
Phone: (213) 343-2005

## 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 passod UNIV 400, the Writing Proficiency Examination (WPE), betore 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 apecial action to a graduate program in the School of Natural and Social Sciances 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. affer a broak in residence and who have not passed the WPE must pass the exam in their first quarter in residence atter readmission to the program or they will be suspended from further work on their program until they have passed the exam.

The Cal State LA. Writing Proficiency Examination may not be waived for graduate students admitted to programs in the School of Natural and Social Sciences oven if they have salisfied a writing proficiency requirement at another institution.

## ANTHROPOLOGY

## School of Natural and Social Sciences

## DEPARTMENT OFFICE

King Hal C4068<br>Phone: (213) 343-2440

The M.A-Anthropology degree provides training in five areas: culture theory, ethnography, archeology, linguistics, and physical anthropology.

## Master of Arts Degree

## Admission to the Program

Applicants must have a baccalaureate in Anthropology and a 2.75 grade point average in the last 90 quarter units attempted or a $B$ (3.0) grade point average in anthropology courses. Those whose undergraduate major was not Anthropology must complete 20-32 units in anthropology, including ANTH 497, with a B average. Students' actual number of units required is determined in a quallying conlerance during their first quarter of posibaccalaureate study.

## Requirements for the Degree (45 units)

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

## Language, Linguistic, or Statistics Proficiency

All students must have a reading or speaking knowledge of a relevant research language or demonstrate proficiency in the linquistic analysis of a lanquage approved by the department or in statistics. Students must satisty this requirement before they may itempt the comprehensive examination or submit a thesis. Language proficiency is demonstrated by passing a foreign language reading examination administered by the Department of Foreign Languages and Literatures. Statistics proficiency is demonstrated by a B or higher grade in POLS 480, PSY 414, or SOC 410.
Required Courses (8 units):
ANTH510AB Seminar: Anthropelogical Theory and
Analysis (4, 4) igrade 8 ar bener reacead br cenanuance in prograw)
Electives ( $31-37$ units).
Select from 400- and 500-level anthropology courses, including at east four different 500 -level courses. A maximum of 8 units in a related field may be included with prior adviser consent. Total must include 6 units of ANTH 599 if thesis option is elected.
Comprohensive Examination or Thesis ( 0,6 units):
ANTH 596 Comprehensive Examination (0) or
ANTH 599 Thesis (6)
Students who select the comprehensive examination (ANTH 596) should expect to take it no earlier than the quarter they compiate al course work on their program and must comply with school and department requirements. Examinations are required in culture theory and two of the following areas; archeology, ethnography, Inguistics, physical anthropology. Students who write athesis must have successive enrollments in ANTH 599 for a total of 6 units.

## Courses in Anthropology (ANTH)

400 -level Courses

[^1]
## Graduate Courses

Classifed graduate standing is required for admission.
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 credin 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)

Prarequisite: 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: Soclal Organization (4)
Prerequisite: Classilied 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 ance lor credif.

## 570 Seminar: Language and Culture (4)

Prerequisiles: 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 modela. May be repeated for credit.

## 580 Methods in Ethnography (5)

Prerequisite: Classilied graduate standing in Anthropology. Advanced principles and methods concemed with ethnographic feld work; techniques of gatharing, reporting, and interpreting field data relating to research problems and design. May be repeated ance 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 CRNC.

## BIOLOGY

## School of Natural and Social Sciences

## DEPARTMENT OFFICE <br> Biological Science 142 <br> Phone: (213) 343-2050

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, devalopmental biology, ecology, electron microscopy, entomology, environmental boblogy, avolution, genetic engineering, genetics, histology and anatomy, itvertebrate zoology, molecular biology, mycology, parasitology, physiological ocology, plant anatomy, plant physiology, plant taxonomy, tissue culture, vertebrale 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 fetters of recommendation, must be recelved by the department prior to the following deadlines:

- August 1 for admission to fall quarter
- November 1 for admission to winter quarfer
- 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 LA. 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 conditionatily classified standing. Classilied standing is granted to those who have a minimum 2.75 grade point average in their last 90 quarter uniss 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 qualtying courses (to be approved in advance by the graduate adviser) that should be completed by the end of their second quarter of graduate study and must be among the first six courses completed.
Applicants who wish to enter the program from outside the biologcal science area must complete the following courses (or equivalonts) to be aligible for graduate status in the Biology Department:
BIOL 101-103 Principles of Blology $(5,5,3)$
BIOL 302 Biomotrics (4)
BIOL 315 General Genetics (4)
BIOL 330 Cell Biology (4)
BIOL 360 . General Ecology (4)
CHEM 101-103 General Chemistry I, II, III $(5,5,5)$

CHEM 301ABC Organic Chemistry $(3,3,3)$
CHEM 302ABC 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 -lovel courses. A comprehensive examination or a thesis is required. All students must take BIOL 510 (Seminar: Blology) twice during their first year in classified graduate standing. Students also must futtll al university requirements including the Writing Proficiency Examination (WPE). Al students must present a tinal graduale 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 -leval 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 599 (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 departmentsk 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 Iterature 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., otc.) as woll 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 consult. ation with an adviser and should provide the student with the necassary 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)
BICL 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 recelve classilied 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 interisve theoretical and laboratory training in the techniques and application of genetic engineering and related technologles. The program is designed to prepare students for employment in industrial or academic research positions or for advanced sludy in molacular biology. Courses taken to fulfill certficate 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. Reter to the Graduate Study chapter of this catalog for general informaton governing al certificale programs.
Prerequisites for admission to the program:

- Admission, in classifled graduale 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 foliowing courses or equivalents:
- BIOL 330 Cell Biology (lecture and laboratory) or MICR 340 Microbial Genelics
- CHEM 431ABC Biochamistry (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 MICA 202 (Microbiology Laboratory for Health-Related Sciences-2 units) during their first quarter in the certificate program-
Requirements for the Certificate (minimum 26 unis):
Aequired Core ( 19 units)
BIOL 417 Principlas of Gene Manipulation (4)
BIOL. 517 Seminar: Gene Manipulation (3)
BOOL. 519 Laboratory Experiments in Gene Manipulation (B)
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 Genelics (4)
BIOL 437 Advanced Cell Physiology (4)
BIOL 515 Seminar: Genetics (3)
BIOL 525 Seminar: Developmental Biology (3)
BIOL539 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)
MICA 510 Microbial Genetics (3)

## Courses in Biology (BIOL)

## 400 -level Courses

> All 400 -level courses may be applied toward masfer's degree requirements except the following, subject to linits established by the deparment and approval of the graduate adviser: BIOL 499 and ail courses with tho suffix $N$.

## Graduate Courses

## Classifed graduafe standing is requind 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 ance for credit as subject matter changes.

## 510 Seminar: Biology (1)

Attendance at regutar 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 ance for credit as subject matter changes.

## 517 Seminar: Gene Manipulation (3)

Prerequisites: BIOL 417; instrucfor consent. Critical evaluation and communication of recent literature in molecular biology. May be repeated to maximum of 6 units.

## 519 Genetic Engineering Laboratory (B)

Prerequisites: BIOL 417; BIOL 330 or MICR 200AB; CHEM 431ABC; instructor consent. Introduction to basic techniques. Lecture 2 hours, laboratory 18 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)

Prerequiside: 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 433 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 systematics course. Fundamental concepts and problems in definition and recognition of species and highter 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 repested 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 Seminan 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. Qurrent topics in anims behavior, with emphasis on origin and ecological signilicance of behavioral patterns. May be repeated for credif 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 oll-campus laboratory. Graded CRNC.

## 597 Graduate Research (1-6)

Prerequisite: Approval of program committee. Conducting research toward master's degree. Mey 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)
Prerequistes: 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 CRNC.

# CHEMISTRY AND BIOCHEMISTRY 

## School of Natural and Social Sciences

## DEPARTMENT OFFICE <br> 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, feaching positions in community colleges, or more advanced study toward the Ph.D. degree.
The comprehensive examination option is intended for persons in induatry or government who need to develop a more current. understanding of chemistry; for community college faculty preparaIjn; 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 \% 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 requiraments, 10 units of introductory biology, 8 units of microbiology, and 11 units of upper division biology.
AJ applicants are required to have a 2.5 grade point average in their last 90 quarter units. Applications for any quarter must be subnitted early in the provious quarter. Students must apply to both te department and the university.
Placement Examinations
AI 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 Fochemistry, 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 examinafons appropriate to their area. Mstudents do not take an examina$\mathrm{ion}_{\mathrm{i}}$ it is presumed that they are not proticient in the particular area, and are then requited 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 is 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 examina-
tion option in Chemistry consists of required courses, including advanced laboratory courses and slective courses, with a minimum of 23 units in 500 -level courses. Students must comply with school and dopartmental 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 axamination, primarily about the thesis, administered by the department.
Comprehensive examination option candidates must pass writen comprehensive examinations on the subjects of the required courses.
Candidates for all degree options must possess a reading knowledge of chemistry in a toreign 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 roquired 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 wil be taken in German or Russian, or French for the Biochemistry option, although other languages will be accepted id, in the opinion of the advisory committee, a reading knowledge of the atternate language proposed would be of value to students in their professional career.
Students in the Biochemistry option will not recaive graduate credit for CHEM 431 ABC or 432 AB 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 proviously completed the equivalent of any of these courses will not be required to ropeat them.
- Thesis Option (45 units)

Required Courses ( 15 units):
CHEM 420 Advanced Organic Chemistry (4)
CHEM 501 Quantum Chemistry (4)
CHEM 504 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 adviser 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 504 Advanced Organic Chemistry (4)
CHEM 580 Graduate Seminar Chemistry (1, 1, 1)
Select one of following pairs:
CHEM 431 ABC 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 labovatory 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, $480,503,505,534 A, 590,598$.
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 dopartmental requirements.

- Biochemistry Option (45 units)

Requirad Courses (12 units):
CHEM 503 Advanced Biochamistry ( $3,3,3$ )
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:
CHEM $414,419,420,425,433,440,454 \mathrm{~L}, \mathrm{P}$. $462,480,501,504,505,534,590,598$.
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 Industriat Chemistry for postbaccalaureate
and graduate students. This program is designed to develop skils in instrumental analysis by providing a broad range of experienon 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 lotal of 16 units of 400 - and 500 -level course work with a 8 (3.0) grade point average. Some courses taken to meet requirements of this program may also be appled toward the master's degree program in Chemistry. A bachelor's degree in Chemistry is required for admission to the program. Refer to the Graduato and Postbaccalaureate Study chapter of this calalog for general regulations governing al graduate level certificate programs.

## Requirements for the Certificate (16 units) <br> Required Courses ( 16 units): <br> CHEM 425 Polymer Chemistry (4) <br> CHEM 440 Industrial Chemistry (4) <br> CHEM 498 Cooperative Education (2) <br> CHEM 580 Graduate Seminar Chemistry (2) <br> CHEM 590 Advanced Laboratory (4) <br> Students may substitute other appropriate courses with adviser approval.

## Courses in Chemistry (CHEM)

## 400 -level Courses

All 400-fevel courses may be applied toward master's degree requirements except the following, subject to limits established by the department and approval of the graduate ackviser:

Chemistry, M.S. (thesis option):
CHEM 401, 402, 403, 412AB, $418^{\circ *}, 462^{\circ}$
Chemistry, M.S. (comprehensive examination option):
CHEM 401, 402, 403, 412AB, $418^{\circ *}$
Chemistry, M.S. (Biochemistry option):
CHEM 401,431 ABC, 432 AB
** Student may petition to waive the rule regarding this course.

## Graduate Courses

Ciassified 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 theit 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 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, ipid and carbohydrate metabolism, hormone assay, and endocrine functions.
580 Graduate Seminar: Chemistry (1)
atsendance at regular departmental seminar program; participafion in seminar training program with oourse instructor, presentaIon of a satistactory departmental seminar. May be repeated to maximum of 3 units. Graded CR/NC.

## 590 Advanced Laboratory (1-2)

Prerequisites: CHEM 302B; 4128 or 432 B 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 appled to M.S. degree. Combined uni's 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, 599, and 599 may not exceed 15. Graded CRINC.
598 Graduate Directed Study (1-4)
Prerequisiter: Instructor consent to act as sponsor. Independent study of advanced topios 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 delense thereof. May be repeated to maximum of 4 units. Combined units of CHEM 590, 597, 598, and 599 may not exceed 15. Graded CRNC.

## 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 wishto pursue advanced study foward 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 MexicanAmerican Studies or a related field, with at least 20 upper division unis in Chicano Studies courses including $\mathrm{CHS} 403,410$, 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 belore 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 Litaratures and in accordance with the practices of that department or
- 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 lssues (4)
CHS 505 Seminar: Chicano Litorature (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 quality for this option. This option must be declared before advancement to candidacy.

Comprehensive Examination or Thesis (0-6 unds):
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 comprebensive 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
AI 400 -fevel courses may be applied toward master's degree requirements, subject to ilmits established by the department and approval of the gracuate ackiser.

## Graduate Courses

Classilied graduate standing is recuared for admission.

## 501 AB Seminar: Theory and Method in Chicano Studies (4-3)

Prerequisite: CHS 450 recommended for 501B. Advanced anatysis of Chicano Studies with emphasis on bohavioral theory and methodologies applied to special fields of culture, including history, psychology, politics, education, economics, language; enphasis on current social issues.
504 Seminar: Chicano Psychological Issues (4)
Prerequisite: PSY 150 orCHS 410 , Selected paychological issues of Chicanos including such topics as cultural psychodynamics, the fully functioning Chicano, special psychological problems, therapy and counsaling affectiveness, and social psychalogical models.

## 505 Seminar: Chicano Literature (4)

Prerequiside: CHS 403. Literary genres within Chicano lierature 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)
Prarequisite: Advancement to candidacy in master's degree program. Interdisciplinary investigation and discussion of selected topics in Chicano studies.
598 Graduated Directed Study (1-4)
Prerequiste: Consent of facully 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 8 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.

# GEOGRAPHY AND URBAN ANALYSIS 

## School of Natural and Social Sciences

## DEPARTMENT OFFICE <br> King Hal C4067 <br> Phone: (213) 343-2220

The Master of Arts degree program in Geography is designed to prepare students for teaching at the secondary and community colioge levels, employment in government and private industry, and further graduate study in geography.

## Master of Arts Degree in Geography

## Admission to the Program

Aopicants 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 ( $\mathrm{A}=4.0$ ) in the last 90 quartor units attempted, a minimum $\mathrm{B}(3.0)$ grade point average in all geography courses attempled, and must have completed $16-32$ quarter units ol geography courses. Those who have completed no lower division course work in geography must completo GEOG 370 (World Regions) or equivalent.

## Requiroments for the Degree (45 unis)

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 satisty 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 Lteratures 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 Seminar (4 units):
GEOG 570 Seminar: Nature of Geography (4)
Electives (select 12 units from following):
GEOG 530 Seminar: Urban Social Systems (4)
GEOG 571 Seminar: Regional Geography (4)
GEOG 575 Seminar: Human Geography (4)
GEOG 580 Seminar: Physical Goography (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 fleids.


#### Abstract

Comprehensive Examination or Thesis (0, 6-9 units): Students who salect 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 satisty the 45 -unit requirement for the master's degree.


## Courses in Geography (GEOG)

## 400 -level Courses

AI 400 -level courses may be appled toward master's degree requirements, subject to limits established by the depertment and approval of the gractuate achiser.

## Graduate Courses

Citseifind graduate sranding is required for achmission.
530 Seminar: Urban Social Systems (4)
(also listed as SOC 530)
Prerequisite: Instructor consent. Growth and nature of urban social systams in selected cities and metropolitan areas; theories of urban structure and problems: improving quality of urban Ife; comparisons of cities in various countries.
570 Seminar: Nature of Goography (4)
Prerequisite: Instructor consent. History, objectives, and methode of geography.

## 571 Seminar: Reglonal Geography (4)

Prerequisite: Instructor consent. Selected regions of world. May be repeated as subject matter changes.
575 Seminar: Human Geography (4)
Prerequisile: Instructor consent. Selected topics pertaining to goography 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, landlorms, 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, complation of foreign language or upper division statistical or computer skill requirement. May be repeated to maximum of 9 units. Graded CR/NC.

## GEOLOGICAL SCIENCES

## School of Natural and Social Sciences

## DEPARTMENT OFFICE

Physical Sciences 216
Phone: (213) 343-2400
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 complating the program with ether a thesis or a comprehensive examination

## Cooperative Master of Science Degree

The Department of Geological Sciences participstes in a cooperative program with Caliornia 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 utizzing the faculty and equipment of a larger part of the Cailtomia 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 unts and upper division course werk substantialy equivaient to that required of Cal State LA. Geology majors. Acplicants who are lacking appropriate upper division geology courses may be admitted to the program but will be expected to remove any deliciencies by complating appropriate courses selected through consutation with the graduate adviser.

## Application Procedures

Applications for any quarter should be submitted early in the preceding quarter both to the Department of Geciogical Sciences and to the university. In addition to the specilic prerequisites stated above, students must meet university requirements for admission to graduate study.

## Requirements for the Degree ( 45 unis)

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 ather 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 entolling in GEOL 596 may not later change to the other option.
With approval of the department graduate adviser, students may substhute appropriate 400 -or 500 -levol 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

Al 400-4vel courses may be applied toward master's degree requirements except the following, subject to limits astablished by the department and approval of the gracuate adviser: GEOL $401 \mathrm{AB}, 402,410,420,430,431,460 \mathrm{AB}, 497,499$

## Graduate Courses

Classified greduate stancing is required for actmission.

## 510 Paleontology (4.5)

Prerequisites: Advanced undergraduate courses in invertebrate palocntology, and stratigraphy or micropaleontology. Seminars in various topics in invertebrate paleontology, such as biestratigraphy, paleoecology, and functional morphology. May include field or laboratory investigations. May be repeated as subject mather changes.
520 Stratigraphic Analysis (4.5)
Prerequisites: GEOL 460AB. Principles and tochniquas of stratigraphic analysis, with emphasis on reconstruction of erviron: ment of depostion and paloogeography. Approximately hat 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 ganerated bedforms to determine sedimentary procosses and environments of deposition.
530 Seminar: Structural Geology and Tectonics (4.5)
Prorequisite: GEOL 410 or upper division course in structural goology. Crtical review of seloctod topics conceming analysis, interpretation, and origin of geologic structures, mechanics of rock delormation and of large scale crustal deformation.

## 531 Tectonic Problems of Southern California (4.5)

Prerequisito: GEOL 410 or upper division course in structural goology. Current topics in the geotectonic avolution of southern California.

## 533 Seminar: Ouaternary Geology (4.5)

Prerequisite: GEOL. 430. Studies ol Quaternary elimate, 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 Ignoous Petrology (4.5)

Prerequisies: GEOL $400,401 \mathrm{AB}$. Advanced study of occurrence and petrogenesis of igneous rocks. Laboratory includes microscopic study of selected rock suites and application of instrumental techriques of igneous rocks.

## 541 Metamorphic Petrology (4.5)

Prerequisites: GEOL 400,403 . Advanced study of occurrence origin, and interprotation of metamorphic rocks. Laboratory in cludes microscopic study of rock suites.

## 350 Crystal Chemistry (4.5)

Prerequisite: GEOL 470. Seminars in crystal chemistry, emshasizing structural and chemical mineralogy, determinative eethods, 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 gneous and metamorphic rocks and sediments; use of lead and stontium as natural tracers; light stable isotopes, oxygen, carbon. and sulfur as petrogeneticindicators in igneous rocks and ore-formng 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 matier changes.

## 581 Seminar: Engineering Geology (4.5)

Prerequisite: GEOL 4B1 or senior course in engineering geology. Advanced study relating geologic factors to engineering projects, wthemphasis 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 fiald pumping test and its analysis.
583 Engineering Geomorphology (4.5)
Application of geomorphic analysis to engineered structures; technicues and methods of evaluating landscape evolution during last 50,000 years.

## 597 Graduate Research (1.5-4.5)

Prerequisires: Instructor consent to act as sponsor, approval of project by student's graduate advisory committee. Independent research under guidance of faculty. Graded CR/NC.

## 598 Graduate Directed Study (1.5-4.5)

Prerequisite: Instructor consert 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 delended orally. Graded CR/NC.

## HISTORY

## School of Natural and Social Sciences

## DEPARTMENT OFFICE <br> King Hall C4066 <br> Phone: (213) 343-2020

The Master of Arts degree in History is designed for the attainment of a fiberal education appropriate to careers in such professions as law, journalism, business, government service, and librarianship, as woll as proparation for teaching and further graduate study.
The program requires intensive study involving courses, seminars, and directed reading in preparation for comprehensive axaminations or a thesis. Students should obtain reading lists wall before the examination from the examining faculty member in each field.

## Master of Arts Degree

## Admission to the Program

In addition to univarsity 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 unts is required, depending on whether the student selects a thesis or comprahensive examinations, with at least 24 in 500 -level courses.

## Required Courses (24 units):

Select six 500 -leval 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.
Comprahensive Examinations or Thesis (0-4 units):
Students must succassfully complete either comprehensive examinations or a thesis.

## A. Comprehensive Examinations (O 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 forelgn language reading examination (FL. 901) in the historical ilierature of a foreign language, as offered by the Department of Foreign Languages and Literatures and in accordance with the practice of that department;
- Complating 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.
Comprehenaive 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 comprahensive examinations (HIST 596) the quarter they
complete all course work on their program and must comply with school and departmental requirements.

Fields Avaluable 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)

## Aroa 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 Britigh pegples, Russia/Sovier Union, or history of sclence)

## Aree Three: The Non-Western World

## Middle East

Asia (with possible concentration on East Asia or South Asia)
Alrica
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-tevel courses may be appied toward master's degres requirements, except the following, subject to limits established by the department and agproval of the graduate adviser: HIST 499

## Graduate Courses

Classified graduate standing is reguered 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 credt.

532 Seminar: Early Modern European History (4)
Readings, discussion, and research paper. May be repeated for credt.

533 Seminar: Recent European History (4)
Aeadings, discussion, and research paper in modern European nstory. May be repeated for oredit.
540 Seminar: British History (4)
Readings, discussion, and research paper. May be repeated for trebit.
$\$ 42$ Seminar: Russian History (4)
Readings, discussion, and research paper. May be repeated for gedit.
550 Seminar: Special Studies (4)
Topics of special interest that transcend cultural and chronological Ines, as announced in Schedule of Classes. May be repeated for redit as subject matter changes.
561 Seminar: History of Modern Mexico (4)
Readings, discussion, and research paper. May be repeated for tredt.
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 papet. 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 CRINC.

## LATIN AMERICAN STUDIES

## School of Natural and Social Sciences

## PROGRAMOFFICE <br> Lbrary North B552 <br> Phone: (213) 343-2180

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.

## Master of Arts Degree

A master's degree in Latin American Studies affords students a wide range of career opportunities in the U.S. and abroad. The growth of the Latin population in the U.S. has created an increasing need for trained persons with a knowledge of the region to work in government, teaching, business, and other fields. Opportunities abroad are available to graduates with a master's degree who are qualified to teach at the university level in Latin American educational institutions.

## Admission to the Program

Admission is governed by university requirements for admission to graduate study. Now 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 atudies committee may waiva a portion of these prerequisites.

## Language Requiroment

Students must demonstrate written and oral competence in Spanish or Portuguese before they may be advanced to candidacy by passing a foraign language reacing examination (FL.901) in the language selected, as offared by the Department of Foreign Languages and Literatures and with approval of that department.

## Requirements for the Degree (minimum 45 unis)

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 fieids may be included in consultation with the adviser. The necessary language proficiency is established by examination. Students have the option of passing a comprahensive examination or writing a thesis as the final phase of the degree program.

Required Course (4 units):
LAS 508 Seminar: Latin-American Social Systems (4) or
LAS 590 Interdisciplinary Seminar in Latin Amarican Studies (4)
Additional Seminars (19-20 units):
Select 500 -leval courses from the following (include seminars in at least three disciplines).
*ANTH 501 Seminar: Ethnography (4)
*ANTH 530 Seminar: Social Organization (4)
*ANTH 594 Seminar: Problems in Cultural Anthropology. (4)
*ART 501 Seminar: Art History (4)
${ }^{*}$ ECON 560 Seminar: Economic Growth in Underdeveloped Areas (3)
'EDFN 506 Comparative Education (4)
*GEOG 571 Seminar; Regional Geography (4)
*GEOG 575 Seminar: Human Geography (4)
*GEOG 580 Seminar: Physical Geography (4)
HIST 561 Seminar: History of Modern Mexico (4)
HIST 562 Seminar: Latin American Hislory (4)
LAS 508 Seminari Latin American Social Systems (4)
LAS 590 Interdisciplinary Seminar in Latin American Studies (4)
LAS 598 Graduate Directed Study (1-4)
"MKT 543 Seminar: International Marketing (3)
*POLS 527 Seminar: Advanced Studies in Comparative Politics and International Relations (4)
POLS 531 Seminar: Latin American Government (4)
"SOC 514 Seminar. Contemporary Sociological Theory (4) SPAN 505 Studies in EI Modernismo in Spanish Amarica (4) SPAN 545 Seminar: Contemporary Spanish-American Poetry (4)
-SPAN 575 Seminar: Hispanic Language (4)

* when emphesis is on Lakir America
- Area of emplusisis should be aqpiled io Latin Amenica

Electives (21-22 units):
Additional units from among Latin American content courses, including appropriate departmental 499 and 598 courses, selected in consultation with the Latin American Studies graduate adviser.
Comprehensive Examinations or Thesis (0, 2-9 unis):
Students must successluly complete either comprahensive axaminations or a thesis.

## Comprehensive Examinations (O units):

Comprehensive written examinations about Latin America must be passed successfully in three of the following academic fields: anthropology, art, comparative education, economics, geography. history, marketing, political science, or other fieids approved by the graduate committee in Latin American Studies.
Students should expect to take the comprehensive examinations (LAS 596) the quarter they complete all course work on their program and must comply with school and program requirements. Students must notify the Coordinator of Latin American Studies in writing of their intention to take the examinations.

Thesis (2-9 units):
Instead of the comprehensive examinations, students may choose 10 write an interdisciplinary thesis under the guidance of a threemember 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)
400 -level Courses
All 400 -level courses listed in the undergraduate major, general option, may be applied towand master's dogree ropuiroments except the following, subject to limits established by the department and approval of the graduate aotviser: LAS 497

Graduate Courses
Ciassinied 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. Interdigciplinary 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 conterences 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.

# MATHEMATICS AND COMPUTER SCIENCE 

## School of Natural and Social Sciences

## DEPARTMENT OFFICE <br> Simpson Tower F206

Phone: (213) 343-2150

## 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 implamentation. 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 propare 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 uriversity requirements for admission to graduate study.
Requirements for the Degree (minimum 45 unts)
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 Comprohensive Examination (0) or MATH 599 Thesis (1-4)
A. Comprehenslve Examination

Students must pass Option 1 written comprehensive examinations in 3 of 4 areas: topology, absiract algebra, complax analysis, and real analysis; for Option 2, 4 areass 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. Thesls

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 500 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 coursas.

- Option 2: Applled Mathematics

The candidate's undergraduate preparation should be substantally equivalent to that required for Cal State L.A.'s Bachelor of Science degree in Mathematics.
Requined Courses (28 units):
MATH 502AB Applied Linear Analysis I, II (4, 4)
MATH 520 Calculus of Variations (4)
MATH 521 Marhematical Models and Optimizations (4)
MATH 562 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-fevel courses may be applied foward master's degray requirements, subject to Hinite established by the department and approval of the graduate achiser.

## Graduate Courses

## Classwifd graduate standing is required for admission.

510 Computer Systems Architectures and Uses (4)
Prerequisite: CS 440. Nontraditional computer architectures and oxtensions of tradzional architectures; implications for operating systems and programming languages; analysis of local and dispersed compiter networks; supporting theories.

## 512 Analysis of Algorithms (4)

Prerequisize: OS 412, 486. Computational complexity; worstcase and average-case analysis of algorithms for common computational tasks, including sorting, matrix multiplication, fast Fourier transiorm, graph problems.

## 522 Date Base 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; diatributed data bases and transaction manapement; 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 pregram verification; type theory and other issues in design ant specifications of programming languages.

## 537 Advanced Software Engineering (4)

Prerequisite: CS 437. The software development Ite cycle, software project management, soltware 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)
Prerequsites: Advanoement to candidacy, instructor consent to act as sponsor, and departmental approval of topic prior to regisiration. 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
Al 400 -level courses may be applied toward master's degree requirements except the following, subject to Nimits estabieshed by department and approval'ol graduate adviser: MATH 401, 454, 455, 465

## Graduate Courses

Classified grachuato 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 Lapounow, 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 eigentunctions, resolvent kernel.

## 502B Applied Linear Analysis II (4)

Frerequisite: MATH 502A. Unbounded operators, differential operators of second order, Sturm-Liouville operators, eigenvalues and eigenfunctions, Green's Functions, and addtional topics.

## 520 Calculus of Variations (4)

Prerequisites: MATH 255, 466. Euler-Lagrange equation for various types of extremal problems; fixed and variable and 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 1, $11(4,4)$
540A: Prerequisite: MATH 455. Theory of groups, introduction to rings.

540B: Prerequisite: MATH 540A. Theory of nings and Peids.

## 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 3 units with approval of graduate adviser,
553 Seminar: Applied Mathematics (4)
Prerequisite: Approval of instruclor. Readings and discussions of selected topics in field. May be repested 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. Numencal solution of linear systems of equations, finite difference approximation to elliptic partial differential equations.

570B: Prerequisite: MATH 570A. Numerical solution of parabolic and hyperbolic partal differential equations; consisten. cy, corvergence, stability.

570C: Prerequisite: MATH 570B. Numerical solution of ordinary and partial differential equations, eigenvalve problems, nonlinear systems, approximation theory, finite elements, integras 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, corwergence theorems. distribution and characteristic functions; central limit theorems; dependence

## 591 Functional Analysis (4)

Prerequisite: MATH 580. Banach spaces, Hibert spaces, Inear 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 io 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, universly, hospital, and public heath laboratories that tequire the master's degres; to quality 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 Microbiofogy, Bacteriology, or Medical Technology with training equivalent to the department's baccalaureate program and must be accepted to the program by the department 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 unis)

A total of 45 units is required, with at least 23 in 500 -level courses.
Required Courses (select 15 units from following):
MICR 503 Seminar: Special Topics in Microbiology (3)
MICR 510 Microbial Genetics (3)
MACR 520 Advanced Immunology (3)
MICR 530 Advanced Microbial Physiology (3)
MICR 580 Graduate Seminar: Microbiology ( $1,1,1$ )
CHEM 503 Seminar: Biochemistry (3)
CHEM 534 Seminar, Clinical Biochemistry (3)

- Thesls Option (30 units)

Electives (15 units):
Solect 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.
MICR 597 Graduate Research (4)
MICR 59 Graduate Directed Study (4)
MICR 599 Thasis (7)

- 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 supplios, water oriented recreasion, waste water, disposal and reclamation, occupational healh, housing and institutions, vector control, solid wastes, and safery.
*Required Courses (select 30 units from following):
MICR 503,510,520,530, 580 BIOL 501, 515, 537, 539
CHEM 503, 534
HS 540, 560, 580

MGMT 501, 564
NURS 562, 564
*induding MCR and CHEM aurses nof used in com
Comprehensive Examination ( 0 innits):
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


#### Abstract

AI' 400 -Ievel courses may be applled foward master's degree requirements except the fallowing, subject to limits established by the department and approvial of the graduate adviser: MICR 401, 430, 433


## Graduate Courses

## Classiled graduate standing is required for admission.

503 Seminar: Special Topics in Microblology (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 transfor, and biochemical mutation; laboratory techniques, practical aspects such as antbiotic resistance. Lecture 3 hours.
520 Advanced Immunology (3)
Prerequisite: Consent of graduate adviser. Advanced principles and concepts of immunology, fundamental biological signilicance 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 CRNC.
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 CRNC.

## 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.

## PHYSICS AND ASTRONOMY

## School of Natural and Social Sciences

## DEPARTMENT OFFICE

Physical Science 315
Phone: (213) 343.2100
The Master of Science dogree 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 universily fequirements for admission to graduate study. Before undertaking required graduate courses, students must complete the equivalent of an undergraduate major in Physics, and must have specitic competence in the subjects covered in PHYS 206, 425AB, 426AB, and 432AB.
New graduate students must consult with the departmental graduate advisar 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 complation for credit of any courses in the degree program.

## Requirements for the Degree ( 45 unts)

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 complating 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)
(Minimuin of one quartior requived.)

## 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 research and directed study; such programs culminate in a comprehensive examination rather than a thesis. For special professional cbjoctives, 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 mejor (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 carears.

## A. Research Option (20 units)

Required Courses ( 9 units):
Select from following:
PHYS 597 Graduate Research (1-4)
PHYS 598 Graduate Directed Study (1-4)
PHYS 599 Thesis (1-4)
Electives (II units):
Select with adviser approval.
B. Course Option ( 20 units)

Requirad Courses (9-12 units):

## Select threefrom following:

PHYS 411 Introduction to Astrophysics : (3)
PHYS 428 Statistical Physics (3)
PHYS 431 Modem Optics (4)
PHYS 433-434 Solid State Physics 1, II $(4,4)$
PHYS 443AB Blophysics $(3,3)$
PHYS 444 Nuclear Physics (4)
PHYS 471 Advanced Physics Laboratory Il (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)
(Repeat s sotal af? unta)
PHYS 544 Theoretical Nuclear Physics (4)
Electives ( $8-11$ units):
Select with adviser approval.
A maximum of 4 units of PHYS 598 may be included in the official program under this option. PHYS 597 and 599 may not be included in this option.
Comprehensive Examination (O units):
All candidates must pass an examination administered by the department. For students who eloct 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 leval 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 requitements.

## Courses in Physics (PHYS)

## 400 -level Courses

All 400 -vevel courses may De applied toward master's degree requirements except the following. subject to Nimits established by the department and approval of the graduate adviser: PHYS $410 A B, 425 A B, 426 A B, 427,432 A B, 470,497,499$

## Graduate Courses

## Classiked graduate standing is required for admission

## $5104 B$ Mathematical Methods of Physics $(4,4)$

Prerequisites: PHYS 410AB, 425AB, 426AB. Intended for beginning graduate students. Problem-solving using techniques current in theorefical physics. Series, integration, complex variables, integral transforms, matrices, eigenvatues, special functions, integral equations, numerical methods, probability, tensors,

## 512AB Modern Physics (4, 4)

Prerequisites: PHYS 425AB, 426AB.
512A: Hydrogen atom, atomic spectroscooy, electron shell structure, molecular binding, quantum statistics, theory of solids.
5128: X-rays, properfies of nudei, 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, radiafion 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 510 AB .

532A: Formal structure of quantum mechanics, hermifian operators, Schrodinger theory and applications to soluble systems; angular momentum and rotation matrices.

5328: Scattering theory and phase-shit 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 fieid theory and group theory for development of solid state topics such as band theory, transport processes, and colleclive 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 facully. May be repeated for credit. Graded CR/NC.
598 Graduate Directed Study (1-4)
Prerequisite: Consent of a faculy 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 $\theta$ units. Graded CR/NC.

# POLITICAL SCIENCE 

School of Natural and Social Sciences

## DEPARTMENT OFFICE

Enginoering and Technology A523
Phone: (213) 343-2230

## The Graduate Program

Two master's degree programs are oflered in Poltical Science, in order to satisfy varying career objectives of graduate students. The Master of Arts degree amphasizes advanced studies for those interested in teaching, preparing for doctoral studies in political science, or preparing for political journallsm, simiar occupations, or various forms of citizen leadership. The Mastar of Science degree in Public Administration provides present and future public service employess the administrative skills and knowiedge nocessary for competent direction of personnel, administration of financlal controls, and coordination of agency functions.

## Adrnission to the Programs

Application must be made to both the Department of Political Science and the universty. Forms for both may be obtained from the depariment 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 af 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 deadiines.

## 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 who 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 Fleids

Three fields for the program must include political theory. The remaining fieids 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 coursas 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 adviser approval, select courses from two of folowing fields:

## AMERICAN POUTICAL STUDIES

POLS 505 Seminar: Contemporary American Poltical Studies (4)
POLS 510 Seminar. Political Theory (4)
INTERNATIONAL RELATIONS AND COMPARATIVE POUTICAL 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)
Addilional Seminar ( 4 units):
Select one additional field from above or a 500 -level course from history, economics, sociology, ar geography.
Electives (26-30 unis):
Select courses in political science or related fields at the 400- or 500 -lavel 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 studen''s competence in three selectedfields, one of which may be in a related discipline, and in the ovarall fiald of poitical science. Students should expect to take the comprehensive examinations (POLS596) 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 theroot, will result in disqualificationfrom the program.
A thesis, in lieu of written comprehensive examinations fout not in lieu of the oral portion), may be authorized for exceptional students who present a proposal 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 quality for classified graduate standing and continue in the prograth. Students who have not completed the corequisites listed below will include them among the qualifying courses.

Applicants wish lower than a 2.5 grade point average in the lest 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 capacily for sazisfactory graduate academic performance.
Corequisites (16 units):
Completion of the following political science courses or equivalent is required. Students must earn a minimum $B \quad(3.0)$ average in corequisites and must ropeat any course they complete with lower than a $C$ grade.
*POLS 403 State and Local Government (4)
*POLS 405 Intergovernmental Aelations in the U.S. (4)
*POLS 460 Foundations of Public Admiristration (4)
*POLS 479 Computers in the Public Sector (4)
*These may be lekken as cornouailes to the M:S: dequee progoen and muat be soong the frat flve courses completed

## Requirements for the Degree (minimum 48 unts)

A minimum of 48 units is required, with at least 24 in 500 -level courses.
In addition to course requirements, students must complete a ons-jear internship in public administration or an approved field project. This requirement may be waived if the candidate holds, or hes held, a posifion entaling managerial or professional level of responsibility in a public or private nongrofit agency.
Required Courses (28 units):
POLS 464 Public Sector Labor Retations (4) or
POLS 476 Administrative Law (4) or
ECON 433 PublicFinance (4)
POLS 466 Public Financial Administration (4)
POLS 472 Organization and Management (4)
POLS 480 Advanced Quantitative Methods in Poltical 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 Reiations

POLS 461 Dynamics of Urban Administration (4)
POLS 561 Seminar: Intergovernmental Reiations Administration (4)

## Public Management

POLS 473 Systems Design in Government (4) or
POLS 481 Managarial Computing in the Public Sector (4)
POLS 591 Seminar: Administrative Theory and Behavior (4)
Public Pollicy 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 substilute 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 Comprehansive Examination (0) or
POLS 599 Thes's (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 comprehersive examinations succosstully. Failure to pass the comprehensive examinations, or any portion thereof, will result in disqual fication 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 advisar:
M.A.-Politica/ Sclence: POLS 470,473
M.S.-Publice 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 ( <br> (4)

Prerequisite: POLS 410,411 , or 413 . Selected tapics in polisical 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. Pesearch and analysis of the interactions of politica 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 comparalive politics (POLS 421 plus 4 units in 450-456). Special problems in international relations and oomparative politics. May be repeated as subject mitter 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)

Prerequisite: POLS 439. Concepts and technicues of policy evaluation. Individual projects:
560 Seminar: Public Administration (4)
Prerequisite: POLS 460. Advanced studies in administrative organization, delegason, field coordination, communication, accountability, and controls, analysis of values process, structures; and arrangements in largo scale governmentat management; trends in administrative research.

561 Seminar: Intergovernmental Relations and Administration (4)
Prerequiste: POLS 405; 460 or 461. Dynamics and pattems of verical and horizontal intergovernmental relalions; 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 otficial legislative bodies; new fronters in personnel research and personnel legislation.

## 564 Bureaucratic Systems <br> (4)

Prerequisites: POLS 474, classified standing in master's degree program in Department of Political Solence. Analysis of bureaucratic systems at all levels of government, with emphasis on value context, envifonmental setting, operationat 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 inplications, special emphasis on program and performance budget. ing:
568 Seminar: Community Development Administration (4) Prerequisite: Instructor consent. Theory and process of planned development; role of administration in formulating and implemerting development goals at all political community levels; planning. strategy, obstacles, assistance development of competent personnet, institution-bulding.
590 Seminar: Philosophy of Public Service (4)
Prerequisites: POLS 580 or 561 , instructor consent. Past and present philosophies of public service, bureaucracy in modern sociely; socies-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 seminer 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)
Prerequisile: Instructor consent to act as sponsor. Independont 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 CRNC.

## PSYCHOLOGY

## School of Natural and Social Sciences

## DEPARTMENT OFFICE

## King Hal C3104

Phone: (213) 343-2250

## The Graduate Program

The Dapartment 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 specikically predoctoral. The M.S. prepares students for such professions as marriago, tamily, 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. Appicaton 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 dopartment 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 quatter units falis below the minimum 2.5 required for admission to the university may, under certain condfiions, 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 attendances as a graduate student. This is done by completing an official program sheet that must bo 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 equivalont, 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 wo additional graduate seminars with adviser approval.
Within their first 16 units, students are required to successtully complete one of the following:
'PSY 411, 414, or 429
*Appled Bohavior Anaysis apton stidents may subatioto PSY 4 IT
Students who have a bachelor's degree in Paychology from Cal State L.A. or equivalent, but whose grade point average and/or lest 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 8 grade or higher. within their flirst 16 unes.
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 complation, students may proceed with their graduate course work as outlined above.

Enroliment in additional 500 -level courses is restricted to students who have completed the above required oourses each with a grade of $B$ or higher.

## Advancement to Candidacy

Upon completion of 16 units of the approved mastor's degrae program with a B (3.0) grade point average or higher, students must apply for advancement to candidacy. Enroliment 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
Kppled Behwier Anwlyair opton sudevis may aubahiue PSY aT7
In addition, select two 500 -level courses with adviser approval.

## Master of Arts Degree (45 units)

A total of 45 units is required, with el least 23 in 500 -level courses. Elactives in Psychology/Related Fields (29-35 units):
Select 2-5 units of PSY 597 and 598 , determined in consutation with departmental adviser, and an additional 24-33 units of courses approved by adviser to cornplete 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 .
Comprahensive Examination or Thesis ( 0,4 units):
PSY 596 Comprahansive Examination (0) or PSY 599 Thesis (4)
Students should expect to take the comprehensive examination (PSY 596) the quarter they complete al 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 Applled 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 (B 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 schoolpsychology also satisfies this requirement.

## Electives in Psychology and Felated 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 theit 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 doctoral 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 Managament in Schools (4)
COUN 504 Advanced Topical Study in Application of Behavior Analysis in Education (4)
COUN 593 Practicum: Stat Development and Consultation (3) PSY 528 Seminar: Behevior Modilication (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 506S Supervised Field Experience in Pupil Personnel
Services: School Counseling (6)
COUN 588 Supervised Practice in Rehabination Counseling (6)

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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 maior with this option is designed to fulfill recently-enacted state regulations for licensure in Marriage, Family, and Child Counseling as outined 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 412 AB Fsychology 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) pius PSY 410 A or 4108 Abnormal Psychology (4)
CROSSCULTURAL MORES AND VALUES (4 units):
SOC 460 Race and Ethnic Relations (4)
THEORIES OF MARRIAGE, FAMLLY, AND CHILD COUNSELING (19.20 units):
PSY 426 Family Therapy Dynamics and Perspectives (4)
PSY 436AB Counseling and Psychotherapy: Theories. Methods, and lssues $(4,4)$
EDSP 412 Issues in Child Abuse, Neglect, and Family Violence (4) plus
PSY 512 Behavior Disorders in Chilldren (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 TECHNIOUES 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 428A. Principles of Measurement and Research in Counseling (4) or
CHDV 504 Research Mothods with Children and Families (4)
SUAVEY IN PSYCHOLOGICAL TESTING ( $4-12$ units):
PSY 431 Survey of Psychological Tests (4) or
COUN 4288 Principles of Measurement and Research in Counseling (4) or
PSY $531 \mathrm{AB}^{* *}$ Individual Testing and Case Study Techniques $(4,4)$ plus
COUN/PSY 534 Methods of Personality Assessment (4)
*Trust to taken as a sequence and appear on gracuate progas

ALCOHOL AND CHEMICAL SUBSTANCE (4 units):
HS 456 Health Studies on Alcohol, Narcotics, Nutnition, and Tobacco (4)
COMPREHENSIVE EXAMMNATION (2 units):
PSY 596 Comprehensive Examination (0) pius
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 credenfial 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 chidren. tamlies, and/or groups.

## Courses in Psychology (PSY) <br> 400 -level Courses

Al 400-levei courses may be appled toward master's degree requitements, subject to Immits astabuished 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 Cribical examination of experimertal literature within selected probiem areas of learning. Discussion of the major theories of feaming.
501 Seminar: Sensation and Perception (4)
Prerequisite: PSY 425 Critical review of current literalure; theories, methods, and problems concerning sensation and perception,
502 Seminar: Motivation and Emotion (4)
Prerequsite; 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 cognision.
504 Advanced Experimental Methods (4)
Prerequisite: Instructor consent. Nonstatistical issues in design of experimental psychological research. Topics include design logic, literalure sources, apparatus, subjects. Emphasis on preparation of an experimental design in an area of student's interest.

## 306 Seminar: Physiological Psychology (4)

Prgrequisite: PSY 401. Crtical discussions, including physiologlcal correlates and mechaniams 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 Schecture of Classes, selected from following. May be repeated to maximum of 8 units with different suffixes.

## 511R Research Methods in Child Psychology <br> 511 Theories of Developmental Psychology

## 512 Behavior Disorders in Children (4)

Prerequisites: PSY 410AB, 412AB. Application of principles of psychology to behavior disorders in chidren. 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 miscelianeous nonparametric statistics.
522 Seminar: Social Psychology (4)
Prerequisite: PSY 422. Theory, methodology, and applied problems dealing with the phenomena of social behevior. individual projects required.

## 528 Seminar: Behavior Moditication (4)

Prerequisite: PSY 421 or 428 ; PSY 417 recommended. Basic theory and procedures in behavior moditication including desensitization, token economies, biofeedback, and self control. Discussion of procedures for assessing the effectiveness of intervention.
531AB Individual Testing and Case Study
Techniques $(4,4)$ (also listed as COUN 531AB)
Prerequisites: PSY 430 or COUN 428 B and one of the tolliowing sequences. PSY 410AB and 438; 410AB and 431; 418AB and 431: or 410A and COUN 405A or 405B, 428A, and 501. Intensive practice in administration and interpretation of botter known testing devices for mental ability, perceptual and motor functioning, and personality dynamics, with attention to integration of results in case studies. Lecture 3 hours, laboratory 3 hours.

## 534 Methods of Personality Assessment (4) <br> (also listed as COUN 534)

Prerequisite. PSY 531AB. Study and evaluation of currem personality tests, objective and projective. Administration, scoring, interpretation, and reporting of results; findings of empirical research. Lecture 3 hours, laboratory 3 hours.

## 536 Seminar: Counseling (4)

(general and special sections)
Prerequisites: PSY $410 \mathrm{AB}, 41 \mathrm{BAB}$, or 436 AB and instructor consent. Intensive discussion of typical counseling situations coordinated with readings in area, evaluation of selacted counssling theories. Otfered in general and special sections, e.g., child, tamily, group. May be repeated in different sections, with maximum of 8 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 smalt 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; researchmethods inhuman factors enginearing; 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,

## 585 Directed Clinical Practice (4)

Prerequisites: PSY 438; 4368 or 531B; or 405 and 445; advancement to candidacy; departmental approval. Lecture, discussion, and supervised experience in providing psychological services in campus or community settings. May be ropeated to maximum of 12 units: Graded CR/NC.

588 Critical Problems in Psychology (4)
Prerequisite: Instructor consent. Critical problems in psychology as a science or as a protession. Topic varies each quarter. May be repeated for credit.

## 590 Practicum in Counseling ( $1-9$ )

Prerequistes: PSY 438; 536 (may be taken concurrently); advancement to candidacy; and approval by departmental committee in quarter prior to enroliment. 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 enroliment. Independent supervised field experience in an applied area of psychology May be repeated to maximum of 12 units. Graded CANC.
597 Graduate Research (1-6)
Prerequisites: Advancement to candidacy, insiructor consent to act as sponsor; departmental approval of project prioe to registrabion. 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 fieid. regular conferences with sponsor. May be repeated for credit Graded CR/NC

## 599 Thesis (1-9)

Prarequisites. Advancement to candidacy, instructor consent to act as sponsor, deparimental approval of topic prior to registration. Independent research resulting in a thesif. May be repeated to maximum of 9 units. Graded CR/NC.

## SOCIOLOGY

## School of Natural and Social Sciences

## DEPARTMENT OFFICE <br> 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 prolossional 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. Satislactory 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 500 -level courses.
Required Courses (12-20 units):
SOC 410 Advanced Statistics (4)
If not taken in undiograduate stimaing)
SOC 490 Advanced Research Methods (4)
(IV not taken in undivgratuate standing)
SOC 512 Seminar: History of Sociological Theory (4)
SOC 514 Seminar: Comtemporary Sociological Theory (4)
SOC 590 Seminar: Sociological Research (4)
Electives (19-33 unils):
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 (6)
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 fieids of concentration: theory, methods, and one other fleld 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 aliowed a maximum of two attempts to complete the comprehensive examination successtully.

## Courses in Sociology (SOC) <br> 400 -level Courses

Al 400 -level courses may be spolied foward master's degree requirements subject to timits estabilshed by the department and approval of the graduate actisor.

## Graduate Courses

Classified graduate standing is requined for admission.

## 512 Seminar: History of Sociological Theory (4)

Historical dimensions, European and American, of dovelopment of systematic sociological theory and method; continuty and critique of major contributions to theories of society and the social processes.
514 Seminar: Contemporary Sociological Theory (4)
Exploration and crtique of problems, methods, and theories chapacteristic of contemporary sociological inquiry; their relationship and contribution to advancement of sociological theary and application to selected social problems.
521 Seminar: Soclology of Knowiedge (4)
Relationships of scientific, artistic, legal, and intollectual 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 Soclal Systems (4)

(aiso listed as GEOG 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 cties in various countries.

## 534 Saminar: Population (4)

Prerequisite: SOC 434. Problems of population growth; social and psychological factors in population dynamies; population planning and policy.

## 540 Seminar: Marriage and the Family (4)

Advanced study of sociopeychodynamics of marriage and the family; emphasis on recent research on tamily change, parentchild relationshipe, and family instability; succassful family life.
544 Seminar: Social Organization and Institutions (4)
Advanced consideration of selected macrosocial structures and their related processes and functions: Iotal societies, institutional subsystems, complex organizations, ethnic subsocieties, prolessions; emphasis varles.
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 soclological 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; probiems of interpretation, scaling techniques, models, simulation, computer data analysis, supervised application of methods.

## 591 Seminar: Computer Applications of Muitivariate Techniques in Sociology (4)

Prerequisite: SOC 410. Multivariate statistical techniques in sociology and their computer applications; multwariate 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 protession. Content varies; see Schedule of Classes for specific topic. May be repeated once for credit.
597 Graduate Research ( $1-3$ )
Prerequisite: Consent of facully 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: writen reports and canferences. 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.

Russell $\perp$ Abbotl (1987) . . . . . . . . . . Prolessor of Computer Science
BA.- 1962, Columbia University; M.A., 1963, Havard University: Ph.D., 1973, University of Southern Catiornia
Adran Muhammad Abdeon (1588) . . . . . . . . Prolessor of Accounting B.S., 1963, M.B.A., 1965, University of Southern Mississippl; D.B.A. 1974, Mississippl State University
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Edward Abood (1963) . . . . . . . . . . . . . . . . . . . . . . Prolossor of English A.B. 1949, University of Chicago; A.B., 1951, Univer sity of California, Berketey: M.A. 1955, Ph.D., 1962, University of Chicago
Raquel Ackurman (1987) . . ... . . . Assistant Professor of Anthropology B.A., 1976 , Bamard College, Columbia University: Ph.D., 1986, Kings' College, University of Cambridge, U.K.
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John M. Allswang (19e8) , . . . . . . . . . . . . . . . . . . . Profassor of History A.B., 1959, University of Ilinois; M.A., 1960, University of lowa; Ph.D., 1967, University of Pinsburgh

Burton L Alperson (1974)
Prolessor of Psychology BA., 1962, Baldwin-Wallace Collogo; M.A., 1964, Ph.D., 1967, Michigan State I Iniversity

1. Theodore Anagnoson (1963) . . . . . . . Prolessor of Political Science B.A., 1965, Lehigh University: M.A. 1969, American University: Ph.D. 1977, University of Rochester
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Grover Lee Brooks (1981) . . . . . . Associate Librarian, Public Services B.S., 1965, Kent State University, M.Ed, 1972, Wright State University, M.S.L.S., 1976, Universily of illinois
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B.A., 1963, Hampton Insstute: M.S., 1966, Ph.D., 1968. Iowa Sxate University
Harold C, Brown (1969) , . . . . . . . . . . . . . . . . . Professor of Education B.A. 1958. M.A., 1961, Los Angeles State College: Pr.D. 1972 Claremont Graduate School
Elizabeth R. Bryant ( 1990 . . . . . . . . . . . . . Assistant Professor of Art B.F.A., 1973, Moore College of Art M.F.A., 1990, University of Plonida

Marihn Buccellati (1973) . . . . . . . . . . . . . . . . . . . . . . . Prolessor of Art BA. 1961, College of St. Elizabeth; M.A., 1967, Ph.D., 1974. Uriversty of Chicago
Danid A. Buck (1976) . . . . . . . . . . . . . . . . . . . . . . . Prolessor of Music B.M., 1966, University of the Pacific; M.M-, 1968, D.MA. 1970. University of Washington
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B.S., 1956, M.S., 1967, Brigham Young Universty; PhD., 1972. University of Mirnesota, M.A., 1981, Azusa Pacific College; Licensed Marriage, Family, and Child Counselor, 1969, California
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Gust A. Yep (1990) ... Assistant Professor of Speech Communication B.A. 1980. M.A. 1985. Ph.D., 1990. University of Southern Caiftomi a

Killian P. H. Ying (1968)

## Associate Protessor of Ceography

 and Uben AnelyaisB.S., 1979, University of Houston; M.A., 1980, Ph.D., 1985, Ohio State University

B.A., 1961, Seoul National University, Korea; M.A., 1966, Ph.D., 1969, University of Pernnsylvania
Aobert Gene Zahary (1585) . . . . . . .Associate Professor of Accounting B.S., 1965, Oregon Stale University; M.B.A. 1972, University of Southern California; B.A., 1975, Callornia State University, Los Angeles; Ph.D., 1982, University of Southern California; C.P.A., 1970, California

Segundo V. Zapata (1978) . . . . . Associate Protessor of Hoalth Science M.P.H., 1964, University of Michigan; DR.P.H.., 1976, University of California, Los Angeles
Marlene Zepeda (1980) $\qquad$ .Assistant Prolessor of Farnily Studies
and Consumer Sciences
B.A., 1972, Calitomia State College, Los Angeles; M.A., 1978, Pn.D., 1984, University of Callornia, Los Angeios
Andrea G. Zetin (1969) . . . . Assoclate Protessor of Special Education B. A., 1972, Queens Collego, City University of Now York; M.A., 1973, New York University; Ed.D., 1977, Columbia University Teachers' Colloge
Wanna M. Zinsmaster (1962)
Professor of Education B.A., 1948, Occidental Coliege; M.A., 1949, Ed.D., 1962, Columbia University
Marie-Antoinette U. Zrime (1964)
Professor of French Licence-es-Lettres, 1952, Universite de Strasbourg. France; M.A., 1954, Southern illinois Universily; Ph.D., 1969, Harvard University


## EMERITI

## (years in parentheses indicate term of senvice)

| Butrus Abd el-Malik (1909-1990)......................... Protessor of History |  |
| :---: | :---: |
| Leonard Adarns (1951-1983) | Prosor ol Pheica |
| Gerhard Albershoim (1956-1970) $\qquad$ Protessor of Music |  |
| Sidney P. Abert (1956-1979) ......................... Protessor of Philosophy |  |
| Laird B. Alison (1956-1963)....................... Prolessor of Manegement |  |
| Dariel Amneus (1950-1996)............................. Professor of English |  |
| Constance E Amsden (1961-1964)................. Protessor of Education |  |
| Esther Andrees Anderson (1956-1973) .................. Prolessor of Music |  |
| Anthony L. Andreoll (1955-1969) ................. Protessor of Blicchemistry |  |
| Ratna Appaduni (1960-1987) ........-1.............. Protassor of Education |  |
|  |  |
| Aftred F. Michael Attee (1965-1966)...................... Professor of Spanish |  |
| John M. Austin (1960-1962) _n......................... Professor of Edvcation |  |
| Comelia Balogh (1962-1909) ........ Associate Librarian and Science and |  |
|  | Technology Librarian |
| Mary A Bany (1965-1974).............................. Prome |  |
| Evalyn Malkin Barclay (1957-1969).............-..... Protessor of Nursing |  |
| Francis H. Baxter (1950-1978)............................. Protessor of Music |  |
| Whltar S. Boavor (1956-1984) ._-................ Protossor of Thestre Atts |  |
| Charles E. Beckwith (1957-1990 .......................Protessor of English |  |
| Eugene Benedetil (1950-1900)......................... Protessor of Education |  |
| Robert E. Benoit (19e5-1990...........................Profossor of Education |  |
| Phillip D. Bergfield (1966-1982)......................... Professor of Finance |  |
|  |  |
| Isaac Bermen (1965-1988) ............................... Prolessor of Education |  |
| V. Patricia Beyer (1973-1990......-....................Professor of Education |  |
| Nancy d. Bilett (1975-1985) ...e.men.... Protessor of Business Education |  |
|  | , |
| David Bilovsky (1956-1979)........................-. Profosscr of Education |  |
| Donald A Bird (1966-197)..............................Prolessor of English |  |
| Herry Etra Brown Blackmon (1968-1986) ............ Prolossor of Nursing |  |
| Robert E Blackenon (1960-1996) ..................... Professor of Journalism |  |
| Miriam Biomquist (1966-1990) ........................ Prolessor of Nursing |  |
| Artine Bock (1961-1977) .................................................. Ubrarian |  |
| Irvin Borders (1951-1971) ...i.n........................ Protessor of Journalism |  |
| Any G. Brainard (1961-1972) ........................men..... Protessor of At |  |
| Aobert V. Brass (1960-1963) .....-..................... Student Attiers Otficer |  |
| Willam H Bright (1950-1980) ....................... Prolessor of Economica |  |
| Allen P. Bristow (1959-1983) ................... Protessor of Criminal Justice |  |
| Helen Brockehurst (1960-1971)................................Counselor and |  |
|  | Associale Prolessor of Education |
| Richard K. Brome (1962-198\%).......e............ Senior Assistant Librarian |  |
| Whona N. Brooks (1959-1983)............. Professor of Home Economics |  |
| n C. Bushman (1963-1976) ......................... Protessor of English |  |

H. Randell Butler (1954-1985) Associate University LibrarianPobert Bascom Callahen (1960-1983) ...... Professor of Political SclenceFichard G. Cannicott (1959-1983)
$\qquad$ Protessor of Paychology
Sernuel M. Caplin (1960-1980)

$\qquad$
Protessor of Botany Dan Cappa (1959-1983) Protessor of Education Phillip L Carter (1970-1968) ........... Associate Professor of Social Work Maside O. Castells (1960-1986) $\qquad$ Prolessor of Spenish
Fobert C. Catren (1950-1972).
Prolessor of Hiatory
Emily C. Cheng (1989-1983).

$\qquad$
Professor of Accounting
Seymour L Chapin (1962-1985).
Professor of History
Doris C. Ching (1962-1901)
Profossor of Education
Charles L Clark (1967-1981) Prolessor of Mathematics
Earl Kennedy Cobb (1958-1987)
Professor of Accounting Harry C. Coffin (1960-1980),............................ Professor of GeographyIrving L. Cohen (1959-1988) Associate Librarian and HurnanitessSocial Sciences Ubrarlan
Ivan P. Coloum (1964-1990)

$\qquad$
Prolessor of Geology John P. Cornish (1954-1982) $\qquad$ Protessor of Art Persis H. Cowan $(1956-1974)$,......................... Prolessor of Education John R Cox (1955-1963). Prolessor of Finance
Clifford J. Cratt (1977-1987). $\qquad$ Professor of Accounting Lestie Cromwell (1953-1900), ............ Dean, School of Engineering and Prolessor of Eectrical Engineering
Morton J. Cronin (1955-1987) $\qquad$ Professor of Engliah Jack B. Culen (1965-1992)........... Prolessor of Speech Commurication John A. Dahl (1965-1983). $\qquad$ Professor of Education Saralyn R. Doly (1962-1983) $\qquad$ Profassor of English Bruce Dryton (1965-1980) Professor of Physics Louis C. De Amnond (1950-1979) $\qquad$ Professor of History Cameron S. Doeds (1951-1995).......... Professor of Physical Education Ear W. Denny (1985-1993) ...........Associate Doan, School of Education and Prolessor of Education
Harry Diamond (1960-1979) $\qquad$ Professor of Criminal Justice Robert J. Diamond (1958-1981) $\qquad$ Professor of Mathematica Solomon Diamond (1949-1971) $\qquad$ Protessor of Psychoiogy Geraldine Dimondstein (1972-1989) $\qquad$ Professor of At Wechtang Dipbodre (19eb-1988) Prolessor of At Cortland C. Doan (1905-1999) $\qquad$ Prolessor of Technology Clifford Dobson (1966-1973)................. Prolessor of Industrial Studies Aobert L. Douglass (1951-1967).......... Director, Associated Clinics and Prolessor of Communication Disorders James Q. Dunkelberg (1958-1987) ...... Protessor of Prysical Education Leonard Edmondson (1964-1986) $\qquad$ Protessor of An Louis W. Eggers, 上r. (1962-1991) ..... Professor of Eectrical Engineering
thed E Ehrhardt (1960-1975) Secretary of the University and Protessor of English SmonC.Elliot (1950-1978) ....... Protessor of Health and Safety Studies Patride Wright Elis (1970-1966) $\qquad$ Professor of Family Studies and Consumer Sciences
Byy Engelke (1964-19e3). $\qquad$ Associate Librarian Asber H. Ewsid (1957-1986) $\qquad$ Professor of Anthropology In)mond E. Fausel (1952-1990) .......................Protessor of Technology Jopd K. Ferguson (1965-1986) ..........................Prolessor of Chemistry ded W. Fick (1956-1992) .................................... Professor of English AntaH. Fisher (1956-1990). $\qquad$ Protessor of Physical Education Acbet \& Forbes (1956-1978) $\qquad$ Professor of Education Robet M. Fowolls ( $1962-1968$ ) .............................. Professor of Music Seorge N. Francis (1949-1976) ......................... Professor of Accounting thed H. Fritz (1971-1988) .......... Protessor of Mechanical Engineering formen Fruman (1959-1980). $\qquad$ Professor of English tevis Q. Gardernal (1950-1961) $\qquad$ Professor of Theatre Arts Juwel Garner (1961-1982) ................................ Professor of Education Wheert A. Giroux (1957-1994). ....-Professor of Electrical Engineering Sen C. Gmur (1966-1983)...........Dean, School of Fine and Applied Arts and Protessor of Health and Satety Stuclies Horber Goldenberg (1955-1986) $\qquad$ Protessor of Psychology Laonard Gordon (1962-1987) $\qquad$ Assoclate Ubrarian llary Gormly (1982-1983). $\qquad$ Librarian 6. Douglas Gourley (1957-1977)_............ Professor of Criminal Justice GloraS, Graham (1999-1996) ..........................Professor of Education Evetyn B. Granville (1967-1984)..................... Professor of Mathematics Nbert D. Graves (1951-1963). $\qquad$ President of the University Thelma Graves (1951-1863)....Assistant Professor of Home Economics John A Greeriee ( $1965-1979$ ) ....................... President of the University Enrnet A. Greenwath (1949-1974) ..........................Professor of History
 Wichael F. Grisate (1956-1975) ..........................Professor of Accounting Edward O. Guerrant (1954-1900) ...........................Professor of History Kath E. Gurmers (1956-1980................Prolesser of Industrial Studies George A. Gustatson (1970-1963) .................... Protessor of Accounting Jeasie C. Gustafson (1952-1967)........ Prolessor of Business Education Byron Guyer (1955-1978) $\qquad$ Protessor of English Vhs Timson Gwinn (1956-1972).................................fessor of Education Hartha L Hackman ( $1950-1977$ )............................................. Librarian Donaid J. Hager (1957-1981) .............................. Professor of Sociology Else S. Hahn (1963-1977)........................................Profassor of Speech Aobert O. Hahn (1586-1900) ............................... Prolessor of Education Harold D. Hall (1956-1980)..................................Professor of Education
 Louis A. Mansen (1956-1980).................................. Professor of Music Wiliam R Hanson ( 1960 -1987)............................ Prolessor of Biology John Haralgon (1951-19e0 .......................... Professor of Psychology James V. Harvey (1965-1971) .....Professor of Botany and Nature Study Caro C. Hatcher (1955-1972) $\qquad$ Prolessor of Education

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| Bartara O. Henkel (1956-1981) |
|  |
| Burton Henry (1950 |
| Jack C. Heppe (1999-1977) .............. Director of Campus Dew |
| Frank d. Hill (1949-1961) |
| Anthony Hillbruner |
|  |
| Lester Hirsch (1960-1985) .................................Prolessor of Physics |
| Patricia M. Hodges (1970-1986)..................... Professor of Psychology |
| Virginia Hottman (1952 |
| John L. Houk (1971-1963) ...................... Prolessor of Poilitical Science |
| Ke Ting Hsia (1963-1999) .........-Professor of Economics and Statistics |
| Mary W. Huber (1952-1971) _-............................ Proles |
| Donald E. Hudson (1964-1963) |
| Foland D. Hutehinson (1950-1983) .....................Associate Protessor |
|  |
| David Jacobsoly (1960-1983) ........................Prolessor of Hewth and |
|  |
| Sigmund Jaffe (1958-1986) ........................... Professor of Chemistry |
| Lois V. Johnson (1950-1976)........................ Prolessor of Education |
| Stewart A. Johnston (1963-1977) ................... Protessor of Chemistry |
| John O. Jones (1964-1991)........................... Professor of Education |
| Ernest R. Kamm (1966-1990) ................. Prolessor of Criminal Justice |
| Eloise M. King (1960-1988) ..............................Professor of Nursing |
| Wanda L. King (1965-1980)............................... Professor of Nursing |
| Donaid E. Kinstler (1997-1980)........................ Professor of Education |
| Arthur J. Kirsch (1961-1979) ......................... Protessor of Economics |
| Aalph E, Kloepper (1959-1980) $\qquad$ Prolessor of Education <br> Willam A. Knoke (1970-1982) $\qquad$ Professor of Marketing |
|  |  |
|  |
| David Laird (1958-1990.................................... Professor of English |
| John LeMonica (1956-1900) -................. Professor of Industrial Studies |
| Roderick Langston (1962-1562) ...................... Professor of Education |
| Jean Uvey Lehman (1963-1974) ..................... Protessor of Education |
| Vernon Leidig (1950-1982) ................................ Protessor of Music |
| John Leiman (1967-1983) ..............Associate Protessor of Psychology |
| Marilinn A Lemon (1956-1988) ...........................Protessor of Nursing |
| Robert T, Lewls (1952-1962) .......................... Protesser of Psychology |
| Harold E. Lionett (1956-1982) .......................... Prolessor of Spanish |
| Willam E Lloyd (1959-1977) .....................Publications Manager and |
|  |
| Wwam F Long (1967-1983) $\qquad$ Assoclate Director of Institutional Research |
|  |  |
|  |
| King S. Luk (1960-1983.......................-Professor of Civil Engineering |
| Donald G. Malcolm (1972-1961) ............. Dean, School of Business and |
|  |  |

Leonard F. Heath (1956-19eg) ..................................................etessor of Aft Leonard W. Hein (1956-1989) ......................... Protessor of Accounting Barbara O. Henkel (1956-1981) _......................Protessor of Hevth and Professor of Education Jack C. Heppe (1949-1977) ............... Director of Campus Development Frank $\mathcal{L}$. Hill ( $1949-1961$ ) .................................... Protessor of Finance Anthony Hillbruner ( 1954 -1980) .........................................-Professor of Speech Communication Lester Hirsch (1960-1985) ..................................... Prolessor of Physics Patricia M. Hodges (1970-1986)....................... Professor of Psychology Virginia HoHtman (1952-1967)............................................... John L. Houk (1971-1983)......................... Prolessor of Political Science Ke Ting Hsia (1963-19e9) .......... Professor of Economics and Statistics Mary W. Huber (1952-1971) ................................. Professor of Speech Donald E. Hudson (1964-1963) ............................ Professor of Physics Foland D. Hutchinson (1950-1983) ........................Associato Profossor of Psychology David Jacobsolnn (1960-1983) ......................... Prolessor of Hewth and Sigmund Jaffe (1958-1986) ............................. Professor of Chemistry Lois V. Johnson (1950-1978)............................ Prolessor of Education Stewart A. Johnston (1953-197n) ...................... Protessor of Chemistry John O. Jones (1964-1991)............................. Professcr of Education Ernest R. Kamm (1966-1990) .................. Prolessor of Criminal Justice Eloise M. King (1960-1988) ....................................Professor of Nursing Wanda L King (1965-1980) ................................... Professor of Nursing Donaild B. Kinstler (1967-1980)........................ Profassor of Education Arthur J. Kirsch (1961-1979) ........................... Protessor of Economics Ralph E. Kloepper (1959-1980)........................ Prolessor of Education Wiliam A. Knoke (1970-1982) .......................... Professor of Marketing Aaron Kriegel (1956-1986) ............... Associate Professor of Education David Laird (1950-1990 $\qquad$ Protessor of Industrial Studies Roderick Langston (1962-1502)....................... Professor of Education Jean Utey Lehman (1963-1974)...................... Protessor of Education Vernon Leidig (1950-1962) ...................................... Protessor of Music John Leiman (1967-1583) ..............Assoclate Prolessor of Psychology Marilinn A Lemon (1956-1988) .............................Professor of Nursing Robert T, Lewls (1952-19e2) .............................. Prolessor of Psychology Harold E. Lionett (1956-1982) ..................................... Prolessor of Spanish Willam E Lloyd (1959-1977) ........................Publications Manager and Professor-Adrministration .Assoclate Director of Institutional Research Professor of Zoology King S. Luk (1960-1963..........................-Professor of Civil Engineering Donald G. Malcolm (1972-1961)............. Dean, School of Business and Economics and Professor of Management

Jean Maloney (1960-1994). Professor of English George E. Mann (1957-1980) ....... Professor of Mechanical Engineering M. Morris Mano (1990-1990) ............Professor of Electrical Engineering FredH. Marcus (t955-198s) $\qquad$ Prolessor of English Fay F.Marsh (1955-1978) $\qquad$ Counselor Mildred Q. Massey (1960-1906). $\qquad$ Protessor of Economics Leonard G. Matliy (1950-1963). $\qquad$ Professor of Economics Jane E. Matson ( $1958-1990$ ) .............................Prolessor of Education William A. Mays (1956-1980)...............Professor of Industrial Education Malooim A. McClain (1965-1988) $\qquad$ Professer of Art Paul T. McElininey (1988-1983) ...........................-Professor of Marketing Thomas McErroe ( $1960-1965$ )................. Protessor of Poltical Science Jay M. Metcalt (1960-1977). $\qquad$ Professor of Art
Milton W. Meyer (1959-1906) $\qquad$ Professor of History
Maxine L Miller (1950-1960) ...................Prolessor of Home Economics Frederic E. Mints (1970-1981) $\qquad$ Professor of Accounting Arthur L. Misner (1965-1983) $\qquad$ Professor of Poltical Sclence Marguerite Mochel (1999-1973) ...........Protessor of Physical Education lrene M. Molloy (1972-1990). $\qquad$ Professor of Nursing Donald A. Moore (1968-19e2) .... Protessor of Economics and Statistics Affredo O. Morales (1965-19e9) $\qquad$ Professor of Spanish
Fernando B. Morinigo (1963-1990) $\qquad$ Professor of Physics Ralph Moritz (1955-1975) $\qquad$ Uberarian
Robert H. Morneau, Jr. (1977-1900),.......... Prolessor of Criminal Justice Donald G. Mortensen (1949-1976) ................... Dean, School of Fine and Applied Arts and Professor of Education.
Herbert Moskowitz (1982-1985) $\qquad$ Protessor of Psychology
L. D. Myers (1970-1996)................................... Professor of Marketing

Edward J. Neale (1949-1974) ............................. Professor of Education
Edward A Nelson (1959-1960).............................. Professor of Finance
Lestie W. Nelson (1950-1973 ...............................Professor of Education
Helen Isabel Nicidin (1964-1996)........................Professor of Education
Arthur H. Niehoff (190s-19es) ...................... Professor of Anthropology
Reed E. Nilsen ( $5965-1985$ )..................Professor of Physical Education
Midori Nishi (1951-1985) ................................. Professor of Geography
John C. Norby (1950-1975) ............................... Professor of Economics
Naoma P. Norton (1961-1974) .cu........... Protessor of Home Economics
Dorothy O Erien (1951-19em) ........... Professor of Recreation Education Helon M. OConnel (1963-1981). $\qquad$ Professor af Nursing
Marie Ohisen (1961-1977)................. Assistant Professor of English
Marion J. Olson (1958-1975)...........................-Prolessor of Recruation
Sumiye N. Onodera ( 1970 -1986).................... Associate Professor of
Family Studies and Consurner Sciences
Selmer Ostlie (1958-1972) ................................Protessor of Education
Jesse L Oet (1957-1977) ................ Director, Audiovieual Services and Professor-Administration
June DoBode Oxstein (1992-1996) ..................... Protessor of Education
Anne M. Palmer (1953-1971)............... Assistant Professor of Education
Mona Paulee (1972-1987). $\qquad$ Professor of Music
Victor Payse, Jf. (1959-1983) ............ Professor of Electrical Engineering

Mary Alice Peairs (1952-1972)
Librarian
Dorothy R. Peckhem (1950-1972) Professor of Education
Esther Penchet ( $194 \mathrm{~b}-1973$ ) ............................ Professor of Sociology Joseph Q. Pheian (1959-1983) .......................Protessor of Psychology Ear O. Philips (1966-1906) Professor of History Kerneth Phillps (1971-1986) ...........................Prolessor of Technology William G. Plurntree (1955-1982) .............Professor of Civil Engineering Moris Polan (1955-1998) .......-..............................University Librarian Lamar Price (1964-1996) ................................. Prolessor of Education Gerald Prindivile (1969-1976) .......................... Professor of Education Dan R. Rankin (1960-1977)......... Professor of Mechanical Engineering Gerild R. Rasmussen (1954-19e9) .................. Prolessor of Education John W. Rathbun (1956-1980 ...............................Profossor of English J.C. Ray (1957-1999) ....................................... Professor of Accounting Rashad E. Razouk (1972-1979) ........................ Protessor of Chemistry Warren W. Reeves (1950-1962) ............ Professor of Ptysical Education Fred M. Reinman (1967-1989) ........................ Professor of Anthropology Monton J. Renshaw (1950-1973) ........................ Protessor of Education Lois M. Rhinesperger (1969-1981) ........ Protessor of Home Economics Fred G. Rhodes (1954-1980) ........................... Prolassor of Education Ann M. Richardson (1959-1960) ......................Professor of Psychoiogy James F. Fichmond (1955-1970) ......................... Protessor ot Geology Edythe Rodriguoz (1952-1983).......... Associate Profossor of Education George M. Aolling (1959-1988) ........................ Associata Librarian and HumanitieaSocial Sclences Lbrarian Julian B. Roth (1955-1980) .............................. Profossor of Education Paul K. Rowan (1950-1990) $\qquad$ Professor of Sociology Hudson Roysher (1954-1975) ................................... Protessor of Art Thomas A. Rusch (1959-1980) ................. Prolessor of Political Science Clarence K. Sandein (1949-1983) ........................ Professor of English Ake Sandler (1949-1980)...............................Potessor of Political Science Pauline E, Schatz (1969-1983) ............... Protessor of Home Economics Ben F. Scherer (1963-1986) ..........................Protessor of Sslety Studies Leonard I. Schneider (1958-1978)..................... Protessor of Paychology Delwyn G. Schubert (1950-198B) ....................... Protessor of Education Inez Schubert (1965-1963) ...................................... Professor of Music Howard Schug (1986-1971)............ Professor of Electrical Engineering Leon Schwartz ( $1989-1987$ ).................................... Professor of French Burton M. Seidier (1965-1990) .............. Protessor of Physical Education Randolph G. Service (1957-1980) ....................... Prolessor of Education Joseph T. Seto (1960-1968) ............................ Professor of Microbiology Gordon B. Severance (1956-1990) .............. Professor of Business Law Frod J. Shanley (1965-1980).............................. Protessor of Sociology Carioton B. Shay (1962-1999) ................................ Protessor of Education Gunj̣t Sikand (1959-1981)...................... Professor of Civil Engineering Ronald H. Siverman (1965-1986) $\qquad$ Prolessor of Art Robert H. Simmons (1962-1985) $\qquad$ Prolessor of Politionl Science Willam B, Simpson (1958-19e3) $\qquad$ Professor of Economics
Patricia Bates Simun (1966-1991) $\qquad$ Professor of Education Katherine Sistrom (1986-1971)........... Assistant Protessor of Education

Croid Smallonburg (1960-1985) $\qquad$ Professor of Education Berrice B. Smith (1956-1979) $\qquad$ Associate Professor of Education Narjorie M. Smith (1969-1979) $\qquad$ Prolessor of Theatre Arts Kith D. Sayder (1963-1976) $\qquad$ Professor of Music Bernard Somers (1900-19E3) $\qquad$ Professor of Psychology Geraid 5 . Sorrensen (1958-1985) $\qquad$ Professor of Economics Lauis W. Staams [1954-1990] $\qquad$ Prolassor of Biology ignt L Steckmesser (1960-1985) .........................Prolessor of History Yrgil H. Stevens (1953-1963), $\qquad$ Associste Professor of Political Science

Fichart L Stone (1971-1969) $\qquad$ Professor of Anthropology *arold Storch (1965-1987). $\qquad$ Professor of Electrical Engineering Hartin L Stout (1960-1990) $\qquad$ Professor of Geology Acbers Strassburg (1971-1983) $\qquad$ Professor of Music

 Plyotographic Services. Audio-Visual Center Joseph Stubbins (1959-1980) $\qquad$ Professor of Education
taon Surmelian (1961-1974). $\qquad$ Associate Professor of English Kerneth N. Sweernam (1957-1983) $\qquad$ Drector, Instructional Media
Services and Profesgor of Industrial Studlas
Elanore C. Takeda (1959-1977) Lbrarian Lydia M. Takeshiag (1955-1909) ................................ Protessor of Art Elleda d. Tate (1906-1983) $\qquad$ Professor of Education Nonwood Teague (1958-1977). $\qquad$ Professor of Industrial Studies Annette Tessier ( 1909 -1965). $\qquad$ Professor of Education Halph Thomlinson (1969-1989) ....................... Professor of Sociology Alice C. Thempson (1950-1977) $\qquad$ Professor of Paychology Ross D.F. Thompson (1959-1960) $\qquad$ Prolessor of Physics
Rigine F. Thorup (1964-1979) $\qquad$ Professor of Home Economics Harry K. Thrasher (1966-1976) $\qquad$ Professor of Education

Albert A. Tillinan (1956-1994) ......................... Prolessor of Recreation
Maurine Timmerman (1950-1974) $\qquad$ Professor of Musio Wharn S. Ting (190)-1979)............................. Professor of Geography Roy T Tozier (1962-19e8) ....................................Protessor of Edvcation Alvin E. Tuohino (1956-1976) ........................ Professor of Accounting Eleanor M. Tweedie (1960-1990)............................ Protessor of English Philip D. Vairo (1973-19E2) ..................Dean, Schoof of Education and Professor of Education
Maryo Van Deman (1960-197n) .......................................fessor of Music Pobert C. Vorkiar (1970-1sebs) .......... Protessor of Information Systems Marian E. Wagstaft (1992-1976)........................ Professor of Education H. Jean Waldrop (1962-1906) ........................... Professor of Marketing Harry V. Wall (1963-1990) ................................ Professcr of Education Edvin Wandt (1954-19e3)................................ Professor of Education Beverly Wamer (1953-1975) ............... Protessor of Physical Education Lee J. Wexler (1959-1906). $\qquad$ Protessor of Art Patricia M. White (1962-1992)............. Professor of Physical Education Patt W. Schliestett Wiggirs (1956-1950) .................. Professor of Music Howard E. Wilkening (1948-1974) .................. Professor of Psychology George W. WIotl (1950-1977) ........................ Prolessor of Recreation Eleanore C. Wilson ( $1966-1970$ ) .......... Assistant Protessor of Education James B. Wilson (1948-1975).............................Professor of Philosophy Hubert C. Winkler ( $1968-1979$........................... Protessor of Physics Jeannette R. Witucki (1967-1989.................Professor of Anthropology Emil Wroblicky (1956-1987) ............... Professor of Physical Education Kenneth Wynsma (1982-19e0)................... Associate Professor of At Paul M. Zall (1957-1906) ..................................... Professor of English Kenneth Zimmer (1961-19e3) ............ Professor of Business Education Wayne S. Zimmerman (1961-1980) ......... Professor, Counseling Center Jay Ziskin (1961-1979) ................................. Protessor, Counseling Center

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## THE CALIFORNIA STATE UNIVERSITY

## THE CALIFORNIA STATE UNIVERSITY

The individual Caliornia State Colleges were brought together as a systam by the Donahoe Higher Education Act of 1960. In 1972 the system became The Caifornia 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 firat institution of public higher education in Calfornia. The newest campus-California State University, San Marcos-began admitting students in Fall 1990.

Responsibility for The Califomia 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 otficers on the respective campuses.

The Trustees, the Chancellor, and the Presidents develop systemwide 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 faculy from each campus, recommonds academic policy to the Board of Trustees through the Chancellor.

Academic excellence has been achieved by The California State Univarsity through a distinguished faculty, whose primary responsibility is superior feaching. 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 fieid 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 offored 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 systom 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 Caritornia State University 400 Golden Shore<br>Long Beach, CA 90802-4275<br>(213) 590.5506<br>Dr. Barry Muntz<br>Chancellor<br>Dr. Herbert L. Carter<br>Executive Vice Chancellor<br>Dr. Lee R. Kerschner<br>Vice Chancellor, Academic Atlairs<br>Mr. D. Dale Hanner<br>Dr Caesar J Naples<br>Mr. Bruce M. Richardson<br>Vice Chancellor, Faculy/'Staff Relations<br>Acting General Counse<br>Dr. John M. Smart . . . . . . . Vice Chencelor, Unversity Affairs

## TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY

## EX OFFICIO TRUSTEES

The Honorable Pete Wison
Governor of Callornis
State Capitol
Sacramento, CA 95914
The Honorable Leo T. McCarthy
Lieutenant Governor of Callorma
State Capitol
Sacramento, CA 95814
The Honorable Willie L. Brown, Jt,
Soeaker of the Assembly
State Capitiol
Sacramento, CA 95814
The Honorable Lovis 'Bair Honig
State Superintendent of Public instruction
721 Capiol Mall
Sacramento, CA 95814
Dr. Barry Munitz
Chancellor of The Califomia State University
400 Golden Shore
Long Beach, CA 90802-4275

## OFFICERS OF THE TRUSTEES

Governor Pete Wison
William D. Campbell Chair

Anthony M. Vitti Vice ChairChancellor Barry Munitz

Secretary-Treasurer

## APPOINTED TRUSTEES

Appointments are made for a term of eight years, except for a student trustee, alumni trustee, and tacully 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
Mr, Foland E. Arnall
Ms. Marian Bagdasarian
(1996)

Mrs. Mananthi Lansdale
(1993)

John E. Kashiwabara, M .D.
(1994)

Ms. Martha C. Falgatter
Mr. Witiam D. Campbelt
Mr. Ralph R. Pesqueira
(1996)

Mr. Ted J. Saenger
(1997)

Mr. J. Gary Shansby
(1992)

Mr. Anthony M. Viti
(1997)

Mrs. Gloria S. Hom
(1992)

Mr. James H. Gray
(1999)

Mr. Terrance W. Flanigan
(1991)

Mr. Jim Considine, Jr.

Correspondence with trustees should be sent:
cio Trustees Secretariat
The California State University
400 Golden Shore, Suite 322
Long Beach, CA 90802-4275

## Campuses of The California State University

caifiornia State College, Bakerstield
g 001 Slockdale Highway
Bakerafield, CA 93311-1099
Tomás A. Arciniega, President
(305) 564-2011
palifornia State University, Chico
Fist and Normal Streets
Chico, CA 95929
Mobin S. Wison President
(1916) 898-6116
allfornia State University, Dominguez Hilla
1000 East Victoria Street
Carson, CA 90747
Alobert C. Detweiler, President
(213)516-3300

Callfornia State University, Fresno
5241 North Maple Avenue
Presno, CA 93740
Jhh Welty, Prusident
(205) 278-4240

California State University, Fullerton
800 North State Coilege Boulevard
Fullenton, CA 92634
Miton A. Gordon, President
(714) 773-2011

Callfornla State University, Hayward
Hayward, CA 94542
Norms S. Reps, President
(415) $881-3000$

Hamboldt State University
Acata, CA 95521
Alstair W. McCrone, President (707) 8263011

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1250 Bellllower Boulevard long Beach, CA 90840 Ourtis L. McCray, President (213) $985-4111$

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James M. Rosser, President
(213) $343-3000$

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18111 Nordhoff Street
Morthridge, CA 91330
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3801 West Temple Avenue
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(714) 869-7659

Californla State University, Sacramento
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Donald R. Gerth, President
(916) 278-6011

California State University, San Bernardino
5500 University Parkway
San Bernardino, CA 92407
Anthony H. Evans, Prosident
(714) 880-5000

## San Diego State University

5300 Campanile Drive
San Diego, CA 921 122
Thomas B. Day, President
(619) 594-5000

Imperial Valley Campus
720 Heber Avenue
Calexico, CA 92231
(619) 357-3721

San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
Robert A. Corrigan, President
(415) 338-1111

San Jose State University
One Washington Square
San Jose, CA 95192
Gaī̀ Fullerton, President
(408) $924-1000$

California Polytechnic State University, San Luis Oblspo
San Luis Obispo, CA 93407
Warren J. Baker, Prosident
(805) 765-1111

California State University, San Marcos
820 West Los Vallectos Blud.
San Maroos, CA 92069
Bill W. Stacy, President
(619) $471-41.19$

Sonoma Stato University
1801 East Cotati Avenue
Rohnert Park, CA 94928
David W. Benson, President
(707) 664-2880

California State University, Stanislaus
800 West Monte Vista Avenue
Turlock, CA 95380
John W. Moore, President
(209) 6673122


## APPENDICES

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Eligibility Index for Admission Residence Determination for Fee Purposes

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## 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 Calitomia State University campus. For an explanation ot how the eligibility index works, see Eligibility Indexin the Admission chapter. Applicants whose grade point average is 3.0 or higher ( 3.6 for nonresidents) are eligible for admission and exempted trom the tes! 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 eligibilify index for California residents and Calfornia high school graduates is 2800 using the SAT and 694 using the ACT score. It you neither graduated from a California high school nor are a legal resident of California for tuition purposes, you need a minimurn index of 3402 (SAT) or 842 (ACT). The method used to compute the index is explained below:

- SAT: Multiply the grade point average by B00 and add it to the total SAT score.
- ACT: Multipiy the grade point average by 200 and add it to 10 times the composite ACT score

| California High School Graduates or Residents of California |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ACT | SAT |  | ACT | SAT |  | ACT | SAT |  | ACT | SAT |  | ACT | SAT |
| GPA | Score | Score | GPA | Score | Scoro | GPA | Score | Score | GPA | Score | Score | GPA | Score | Score |
| 3.00 qualifes with any score |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 2.79 | 14 | 570 | 2.58 | 18 | 740 | 2.37 | 22 | 910 | 2.16 | 27 | 1080 |
| 2.99 | 10 | 410 | 2.78 | 14 | 580 | 2.57 | 18 | 750 | 2.36 | 23 | 920 | 2.15 | 27 | 1080 |
| 2.98 | 10 | 420 | 2.77 | 14 | 590 | 2.56 | 19 | 760 | 2.35 | 23 | 920 | 2.14 | 27 | 1090 |
| 2.97 | 10 | 430 | 2.76 | 15 | 600 | 2.55 | 19 | 760 | 2.34 | 23 | 930 | 2.13 | 27 | 1100 |
| 2.96 | 11 | 440 | 2.75 | 15 | 600 | 2.54 | 19 | 770 | 2.33 | 23 | 940 | 2.12 | 27 | 1110 |
| 2.95 | 11 | 440 | 2.74 | 15 | 610 | 253 | 19 | 780 | 2.32 | 23 | 950 | 2.11 | 28 | 1120 |
| 2.94 | 11 | 450 | 2.73 | 15 | 620 | 2.52 | 19 | 790 | 2.31 | 24 | 960 | 2.10 | 28 | 1120 |
| 293 | 11 | 460 | 2.72 | 15 | 630 | 2.51 | 20 | 800 | 2.30 | 24 | 960 | 2.09 | 28 | 1130 |
| 2.92 | 11 | 470 | 2.71 | 16 | 640 | 2.50 | 20 | 800 | 2.29 | 24 | 970 | 2.08 | 28 | 1140 |
| 2.91 | 12 | 480 | 2.70 | 16 | 640 | 2.49 | 20 | 810 | 2.28 | 24 | 980 | 2.07 | 28 | 1150 |
| 2.90 | 12 | 480 | 2.69 | 16 | 650 | 2.48 | 20 | 820 | 2.27 | 24 | 990 | 2.06 | 29 | 1160 |
| 2.89 | 12 | 490 | 2.68 | 16 | 660 | 2.47 | 20 | 830 | 2.26 | 25 | 1000 | 2.05 | 29 | 1160 |
| 2.88 | 12 | 500 | 2.67 | 16 | 670 | 2.46 | 21 | 840 | 2.25 | 25 | 1000 | 2.04 | 29 | 1170 |
| 2.87 | 12 | 510 | 2.66 | 17 | 680 | 2.45 | 21 | 840 | 224 | 25 | 1010 | 2.03 | 29 | 1180 |
| 2.86 | 13 | 520 | 2.65 | 17 | 680 | 244 | 21 | 850 | 2.23 | 25 | 1020 | 2.02 | 29 | 1190 |
| 2.85 | 13 | 520 | 2.64 | 17 | 690 | 2.43 | 21 | 860 | 2.22 | 25 | 1030 | 2.01 | 30 | 1200 |
| 2.84 | 13 | 530 | 2.63 | 17 | 700 | 2.42 | 21 | 870 | 221 | 26 | 1040 | 2.00 | 30 | 1200 |
| 2.83 | 13 | 540 | 2.62 | 17 | 710 | 2.41 | 22 | 880 | 2.20 | 26 | 1040 |  |  |  |
| 2.82 | 13 | 550 | 2.61 | 18 | 720 | 2.40 | 22 | 880 | 2.19 | 26 | 1050 | Below 2.00 does not quality for regular admission |  |  |
| 2.81 | 14 | 560 | 2.60 | 18 | 720 | 2.39 | 22 | 890 | 2.18 | 26 | 1060 |  |  |  |
| 2.80 | 14 | 560 | 2.59 | 18 | 730 | 2.38 | 22 | 900 | 2.17 | 26 | 1070 |  |  |  |

## APPENDIX B

## DETERMINATION OF RESIDENCE FOR NONRESIDENT TUITION PURPOSES

The campus Admissions Office determines the residence status of II new and returning students for nonresidant tuition purposes. fasponses on the application for admission and, if necessary, sher evidence furnished by the student are used in making this themination. A student who fails to submit adequate information oestablish a right to classification as a California resident will be classified as a nonresident.
Dhe following statement of the rules regarding residence deternination for nonresident tuition purposes is not a complete discusion of the law, but a summary of the principal rules and their acaptions. The law govarning rasidence determination for tuition zuposes by The California State University is found in Education Cade Sactions 68000-68090, 68121, 68123, 68124, 89705ia707.5, and 90408 , and in Title 5 of the Califomia Code of Augulations, Sections 41900-41912. A copy of the statutes and sgulations is avaliable for inspection at the campus Admissions Office.
Lagat residence may be established by an adut who is physically pesent in the state and who, at the same time, infends to make Caiflomia his or her permanent home. Steps must be taken at least toe year priorto the residence determination date to show an intent dmaka California the permanent home with concurrent relinquishnent of the prior legal residence. The steps necessary to show Calilomia residence intent will vary from case to case. Included umong the steps may be registoring to vote and voting in elections a Caifornia; filing resident California state income tax forms on utal income; ownarship of residential property or continuous ocapancy or renting of an apartment on a lease basis where one's jumanent belongings are kept; maintaining active resident memserships in Callornia professional or social organizations; mainIining Califomia vehicle plates and operator's license; maintaining active savings and checking accounts in California banks; maintiining permanent military address and home of record in California fone is in the military sarvice, etc.

The student who is within the state for educational purposes onily does nof gain the status of resident regardless of the length of the thudent's stay in Cailifornia.
Ingeneral, the unmarried minor (a person under 18 years of age) ferives logal residence from the parent with whom the minor raintains or last maintained his or her place of abode. The waidence of a minor cannot be changed by the minor or the minor's grardian, so long as the minor's parents are living.
A married person may establish his or her residence independent a/his or har spouse.
As 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 raintained his or her place of abode.
Nonresident students seeking reclassification are required by law to complete a supplemental questionnaire about tinancial independence.
The general rule is that a student must have been a California rasident for at least one year immediately preceding the residence determination date in order to qualify as a "resident studenr" for
tuition purposes. A residence determination date is set for asach 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

Semester Term Campuses
Fall Semester $\qquad$
Winter Semaster (Stanislaus only) .............................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 excoptions 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 axception continues for one year to enable the student to qually as a resident student.
2. Minors who have been present in California with the intent of acquiring residence for more than a year belore 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 bean a California resident for the most recent year,
4. Dependent children and spouses of persons in active military service stationed in California on the residenca determination date. This exception applies only for the minimum time required for the student to obtain Calfornia 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 thaneducation at stale-supported institutions of higher education. This exception applies anly 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. Cerlain credentialed, full-time employees of Callornia school districts.
8. Full-time Callornia 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.
9. Certain exchange students.
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 Califomia State University
> Otfice of General Counsel
> 400 Golden Shote
> Long Beach, CA 90802-4275
within 120 calendar days of notification of the linal 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.

Students classilied incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to teclassification as nonresidents and payment of nonresident tuition in arrears. It incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Titie 5 of the Callomia 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 provious quartor are not accepted.

The student is cautioned that this summation of rules rogarding 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 televant tesidence determination date.

## APPENDIX

# 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 taxpayars 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-ilime equivalent (FTE) ${ }^{2}$ 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 amorlization), 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)



[^2]${ }^{\text {c }}$ This figure does not include the capital outlay appropriation of $\$ 212,626,000$.
${ }^{\text {d }}$ The average costs paid by a student include the State Universt fee, application fee, catalog fee, and nonresident tuition. Individue students may pay less than $\$ 1,183$ depending on whether they at part-time, full-time, resident, or nonresident students.

## APPENDIX D

## STUDENT DISCIPLINE

Irappropriate conduct by students or by applicants for admission a subject to discipline as provided in Sections 41301 through 51304 of Title 5, California Code of Reguiations. These sections se as follows:

## ANTICLE 1.1, TITLE 5, Calliomla Code of Regulations

n301. Expulsion, Suspension, and Probation of Students, Folawing procedures consonant with due process established purwant to Section 41304, any student of a campus may be expelled. suspended, placed on probation, or givan a lasser sanction for one ir more of the following causes which must be campus celated:
(a) Cheating or plagiarism in connection with an academic program at a campus. (b)Forgery, atteration, or misuse of campus documents, records, or identification or knowingly furnishing false alormation to a campus.
p) Forgery, alteration, or misuse of campus documents, tecords, of ldontification or knowingly furnishing false information to a camمus.
c) Misrepresentation of oneself or of an organization to be an agent of a campus.

11 Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other camsesfunction.
18) Physical abuse on or off campus property of the person or roperty of any momber of the campus community or of members of his or her family or the threat of such physical abuse.

1) Theft of, or nonaccidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.
2) Unauthorized entry into, unauthorized use of, or misuse of ampus property.
(h) On campus property, the sale or knowing possession of tangerous drugs, restricted dangerous drugs, or narcotics as those lirms are used in California statutes, except when lawfully nuscribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction, or analysis.
Il Knowing possession or use of explosives, dangerous chemicais, or deadly weapons on campus property or at a campus function without prior authorczation of the campus president.
(1) Engaging in lewd, indecent, or obscene behavior on campus propenty or at a campus function.
(1) Abusive behavior directed toward, or hazing of, a member of he campus community.
(1. Violation of any order of a campus president, notice of which had been given prior to such violation and during the academicterm In which the violation occurs, either by publication in the campus nawspaper, or by posting on an official bulletin board designated for this purpose and which order is not inconsistent with any of the ather provisions of this section.
in) 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 delined:
(1) The term "member of the campus community' is delined as meaning Califomia State University trustoes, academic, nonacademic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.
(2) The lerm "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 Univarsity, and
(b) all campus feeding, retal, or residence facillies whether operated by a campus or by a campus auxiliary organization.
(3) The term "deadly woapons" 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 biade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intonded 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 engagod in with regard lo 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 competsitions.
(o) his section is not adopted pursuant to Education Code Section 89031.
(p) Notwithstanding any amendment or repeal pursuant to the tesolution by which any provision of this article is amended, all acts and omissions occurting prior to that effective date shall be subject to the provisions of this article as in affect immediately prior to such effective date.
41302. Disposition of Foes: 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 tution paid by or for such student for the samester, quarter, or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted belore the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuttion 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 consutation with the chancelior, 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 immodiately 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 llves 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 irterim suspension shall be grounds for expulsion.
41303. Conduct by Appllcants 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 enroled 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 porson who, while a student, commits acts that are subject to disciplinary action pursuant to Section 41301 or Section 41302 . Qualfied admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304 ,
41304. Student Disciplinary Procedures for the California State University. The chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for The California State University. Subject to other applicable law, this code shall provide for determinations of tact and sanctions to be applied for conduct which is a ground of discipline under Section 41301 or 41302 , and for qualfied admission or denial of admission under Section 41303; the authority of the campus president in such matters; conduct related determinations on financial aid esigibility and termination; alternative kinds of proceedings, Including proceedings conducted by a hearing officer; time limitations; notice; conduct ol hearings, including provisions governing evidence, a racord, and review; and such other related matters as may be appropriate. The chancelor shall report to the board his or her actions taken under this section.

## APPENDIX E

## PRIVACY RIGHTS OF STUDENTS IN EDUCATION RECORDS

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232 g ) and regulations adopted thereunder (34 C.F.R. 99) and California Edvcation Codo, 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 relaase of such records. In brief, the law provides that the campus must provide students access to otficial 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 recelved before releasing personally identifiable data about the student from records to other than a specitied 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 Allairs 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 ofticial responsible for the maintenance ol each type of record; (3) the location of access lists that indicate persons requesting of 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 racords; ( 7 ) the cost that will be charged for reproducing copies of records; and (B) the right of the student to file a complaint with the Departmont 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 Otfice (FERPA), U.S. Department of Education, $330^{\circ}{ }^{\circ}{ }^{\prime \prime}$ 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 studert'! name, address, talephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic feams, 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 recelved prior wraten objection from the student specifying information that the sfudent requests not 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 responsibilitios in connoction with the campus' academic, administrative, or service functions and who have reason for using student records connected with their campus or other fulated academic responsibilities Disclosure may also be made to other persons ororganizations under certain conditions (e.g., as part of accreditation or program evalualor: in response to a courf order or subpoena; in connection with financial aid; to other institutions to which the student is transferring).

## APPENDIX F

## ISTIIUTIONAL AND FINANCIAL ASSISTANCE INFORMATION

natollowing information about student financial assistance may icblainedfrom the Centerfor Student Financial Services, located IStudent Affairs 124, phone (213) 343-3240:

1) Student financial assistance programs available to students no envipl at Cal State L.A.
2 The methods by which such assistance is distributed among scipierts who enroll at Cal State L.A.
2) The means, including forms, by which application for student funcial assistance is made and requirements for preparing such uplication accurately;
(4) The tights and responsibilities of students receiving financial asistance; and
3) The standards the student must maintain to be considered to anmaking satisfactory progress for the purpose of establishing and rantaining eligibility for financial assistance.

Trefollowing information about the cost of attending Cal State L.A a avalable from the Center for Student Financial Services, located inStudent Affairs 124, phone (213) 343-3240.
(1) Fees and tuition (when applicable);
2) Estimated costs of books and supplies;
7) Estimates of typical student room and board costs and typical comenting costs; and
(4) Any additional costs of the program in which the student is innoled or expresses a specilic interest.
Ifomation about the refund policy of Cal State L.A for the return If uneamed tultion and fees or other refundable portions of costs is available from the Accounting Office, locatod 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 facuity and other instructional personnel;
(4) Data regarding student retention at Cal State L.A. and, $z$ available, the number and percentage of students completing the program in which the student is enrolied or expresses an interest; and
(5) The names of associations, agencles, 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 dascribing the institution's accredifation, approval, or licensing.
Information about special facieties 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 Caifornia State University provides that a student body foe may be astablished by student referendum with the spproval 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 chancelior. 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 voing. Student body fees support a variety of cuttural and recreational programs, child care centers, and special student support programs.

## APPENDIX H

## FREEWAY MAP



Public Iransportation 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 Worid Vista Travel in the University-Student Union.

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[^0]:    Tho Mastor of Arts Degree in Teaching English to Speakers of Other Languages (TESOL) prepares teachers for a wide variety of

[^1]:    At 400 -level courses may be appiod toward master's degree requiraments except the following, subject to bimits established by department and approvai of gradiste accviser: ANTH 454L.P. 497

[^2]:    *For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load equivalent to 15 units per term. Some students onroll for mote than 15 units; some sfudents enroll for fewer than 15 units.
    ${ }^{6}$ The total cost of education does not include the amount related to lottery and the capital investment of the CSU. The eslimated replacement cost of all the system's permanent facifties and equipment on the 20 campuses is currently valued at $\$ 6.5$ billion, excluding the cost of land.

