Colleges and Academic Programs

College of Humanities, Arts, and Social Sciences

Student Academic Affairs
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The degree programs in the College of Humanities, Arts, and Social Sciences are designed to introduce students to both the breadth and depth of the university's curriculum. This is accomplished by combining a wide distribution of courses with the opportunity to concentrate on courses in the college as undeclared. These studentsoften take introductory courses who are unsure about specific academic goals may request to be admitted as undeclared. They are relatively free to concentrate in depth in their major field of interest.

The Gateway to CHASS

Every year, an eminent UCR scholar leads 130 freshmen through the ideas and complexities of the annual CHASS theme while introducing students to university life. Students join The Gateway to CHASS Learning Community by simultaneously enrolling in CHFY 010 (The Gateway to CHASS - Lecture), a teaching assistant-led discussion section, a peer mentor-led workshop, and the appropriate Freshman Composition course. Learning Communities encourage students to explore a range of ideas through reading, writing, and discussions while fulfilling college breadth requirements. Students also work with peer mentors who help them negotiate the transition from high school to the university.

Course Description

Course Description The Gateway to CHASS lecture theme for 2008 is Religion. Religions are powerful forces that elicit a wide variety of responses: loyalty, hostility, fear, fascination. While for some, religion is the most interesting thing people do, for others it is unworthy of serious attention. What is it about religion that evokes such dramatically different responses? What about religion is so appealing? What so alienating? How might we learn to learn about religions and talk about them fruitfully in our highly diverse world where people bring unfamiliar religions into our neighborhoods, worksites, classrooms and, yes, even into our families? In what ways do convictions and commitments enable us to be receptive to and in dialogue with those unlike us?

Majors

A major is a coordinated group of upper-division courses (courses numbered 100-199) in a field of specialization. The major may be a program of upper-division courses within a single department (departmental major), a group of related courses involving a number of departments (interdisciplinary major), or a group of courses chosen to meet a special interest (Humanities, Arts, and Social Sciences individual major).

Before enrolling in certain upper-division courses, students may be required to gain appropriate knowledge by completing specific prerequisite courses. With the assistance of a departmental advisor, students are expected to select lower-division courses that prepare them for the advanced studies they propose to follow.

Choosing a Major, Undeclared Majors

While freshmen may choose an academic major on entering UCR, those who are unsure about specific academic goals may request to be admitted to the college as undeclared. These students often take introductory courses in the natural sciences, social sciences, humanities, and fine arts while searching for an area that most excites their interest. Undeclared majors are encouraged to meet with an advisor in the Student Academic Affairs Office about their selection of courses.

Students with 90 or more units toward a degree must declare a major. To declare a major, students must obtain approval from the Student Academic Affairs Office by filing a Petition for Declaration of Major. Students who do not declare a major by 90 or more units may have a hold placed on their registration.

If undeclared majors feel that their interests lie primarily in the areas of the natural sciences, mathematics, and statistics, or the agricultural sciences, advising can be obtained in the College of Natural and Agricultural Sciences, (951) 827-7294. Those interested in engineering or computer science can be advised in the Bourns College of Engineering (951) 827-ENGK (3647). The college does not allow students to work toward admission into the College of Natural and Agricultural Sciences or the Bourns College of Engineering. They should make progress toward a CHASS major, unless they are pursuing double majors or baccalaureates.

Double Majors

Students can declare a second major within the College of Humanities, Arts, and Social Sciences or a second major in a department or program of another college. Changes are not permitted while on academic probation or during the final senior year (135 units or more). Both majors must be completed within the maximum limit of 216 units, and approval must be obtained from advisors in both departments or programs. In such cases, all course requirements must be completed for each of the two majors chosen. One of the two majors must be designated as the primary major for the purpose of satisfying breadth or general education requirements. No more than 8 upper-division units may count for both majors simultaneously. A declaration of two majors in different colleges must be signed by the deans of the colleges concerned and filed by the student with the college of the principal major. If the two majors lead to different degrees (B.S. and B.A.), that fact will be noted on the transcript, but only one diploma indicating both degree designations will be issued upon successful completion of such a program. Furthermore, if the double major is a mixed B.S./B.A., the college requirements for both majors must be met.

Students wishing to declare a second major must present an outline to the Student Academic Affairs Office, indicating which major will be used to satisfy breadth requirements and any overlap courses between the two majors.

Interdisciplinary, Individual Majors

Humanities, Arts, and Social Sciences Interdisciplinary Major offers courses of broad interest, and students with interests not readily satisfied through existing departments and programs may develop individual majors under the direction of special faculty sponsors. The consent of the Humanities, Arts, and Social Sciences Interdisciplinary Program Committee and the associate dean are required. The title of the major will be entered on the official degree list and on the official transcript. Diplomas will read “Humanities, Arts, and Social Sciences Interdisciplinary” with the individual field of concentration specified.

Interdisciplinary Studies Major

Students interested in a program that combines two areas of interest into a single major should consider Option 1 of the Interdisciplinary Studies major. In Option 2 students can concentrate on Communication Studies from an interdisciplinary perspective.

Liberal Studies Major

Students planning to become elementary school teachers should consider declaring the Liberal Studies Major. The lower-division core of courses prepares students with subject matter preparation in the required subjects of the California Department of Education K-6 Frameworks. The upper-division requirements introduce students to academic areas that provide them with better preparation in meeting No Child Left Behind criteria.
This major achieves the goal of a rigorous major while providing prospective teachers with the broad undergraduate education required for elementary school teaching.

See information on these programs in the Programs and Courses section of this catalog. Several of the college’s regular major programs have an interdisciplinary emphasis that allows examination of a particular problem, theme, or area from a variety of perspectives.

Interdisciplinary Minors

- Asian Studies
- Asian Literatures and Cultures
- Chicano Studies
- Classical Studies
- Comparative Ancient Civilizations
- Comparative Literature
- Creative Writing
- Dance
- Economics (also majors with Administrative Studies, B.A.; and Law and Society, B.A.)
- English
- Ethnic Studies
- French
- Germanic Studies
- Global Studies
- History (also majors with Administrative Studies, B.A.; and Law and Society, B.A.)
- Humanities, Arts, and Social Sciences Interdisciplinary

The disciplinary and interdisciplinary minor requirements of Asian Studies and Latin American Studies are described in the Programs and Courses section under the appropriate department or program. For a description of the other interdisciplinary minors, see individual listings in the Programs and Courses section.

Interests, Independent Projects and Student Research

The Humanities, Arts, and Social Sciences student can often practice the subject, as well as read about it. Many undergraduates have the opportunity to work with a faculty member on a research project, and many departments offer field work and internship courses. In these courses, students combine several hours per week of experience in an agency or firm with study of related academic materials and participation in a seminar, where formal knowledge and practical experience are related to one another. Internship experiences are regularly available in settings such as public and business administration, politics, environmental protection, social welfare, criminal justice, clinical and other psychology programs, museums and archival installations, newspapers, and art galleries.

Normally, each local internship does not count for more than 4 or 5 units in a single term, larger numbers of units being reserved for quarter-away internships. Petitions for credit beyond 5 units in a single quarter for a local internship must have the sponsoring agency’s approval and a written justification by the student’s faculty sponsor. All such requests require the associate dean’s approval.
A maximum of 16 units of credit toward the bachelor's degree may be obtained through internship courses, with a maximum of 12 units of internship scheduled in a single quarter for quarter-away situations. Students who are on academic probation may not enroll in internship courses.

**Transfer of Majors, Changing Majors**

Students in good academic standing can petition to transfer from another college to the College of Humanities, Arts, and Social Sciences or from one major to another within the college, with the following restrictions: only students with 75 or fewer units can enter undeclared or pre-business; students with more than 75 units must declare a major upon admission to the college. The petition must be approved by the Student Academic Affairs Office before the change can be processed by the Office of the Registrar. Changes are not permitted while on probation or during the final senior year (135 units or more). Students who fail to attain a GPA of 2.00 ("C") in preparation for the major or courses required for the major may be denied the privilege of entering or continuing in that major.

**Minors**

The College of Humanities, Arts, and Social Sciences offers minor programs; however, no student is required to take a minor. Minors are not degree-granting majors; they are sequences of supplemental courses designed to enhance work in certain areas. Any minor may be taken jointly with any departmental or interdepartmental major. Minors in the college shall consist of not fewer than 16 nor more than 28 units of organized upper-division course work. No overlap may occur among courses used to satisfy upper-division course requirements for a major and a minor. A GPA of at least 2.00 is required in upper-division courses in the field of the minor.

A minor is a set of courses focused on a single discipline or an interdisciplinary thematic area. There can be no substitution for the courses listed as constituting a minor without approval of the governing department or committee. There is no limit on the number of minors a student can declare. Students must declare the minor(s) before their final degree check before graduation by completing a petition with the Student Affairs Office in the College of Humanities, Arts, and Social Sciences, the College of Natural and Agricultural Sciences, or the Bourns College of Engineering, depending on their major. Prior approval by the department or committee offering the minor is required. The minor is noted on the transcript at the time the degree is conferred.

**University Honors Program**

For a description of the University Honors Program, see Educational Opportunities in the front of this catalog. For a listing of requirements and courses, refer to University Honors Program in the Programs and Courses section.

**Freshman Discovery Seminars**

Freshman Discovery Seminars are designed to introduce students to a wide variety of topics and current issues that UCR faculty explore. For humanities, arts, and social sciences, each quarter's offerings are listed at classes.ucr.edu under HASS 092. Topics vary from quarter to quarter. The current quarter's offerings may be found at discoveryseminars.ucr.edu. Recent topics include integrity, decision making, disease prevention, accounting ethics, war experiences, and medieval art and science.

The seminars have no prerequisites, and freshmen are given enrollment priority, although sophomores may enroll with instructor's consent, if space is available.

Each seminar is limited to 20 students, to encourage discussion. Students may enroll in a seminar offered by any of the UCR colleges (ENGR 092, HASS 092, or NASC 092), regardless of their major. Each seminar carries one unit of academic credit, although units are not applied toward major requirements. The seminars are graded on a satisfactory/no credit basis.

**Undergraduate Program in Business Administration**

The A. Gary Anderson Graduate School of Management (AGSM) and the College of Humanities, Arts, and Social Sciences jointly offer an upper-division major in Business Administration for students who seek a professional education in management. Students who elect the pre-major are advised in the College of Humanities, Arts, and Social Sciences during their freshman and sophomore years and after admission to the major, are advised by the AGSM. Students who elect Pre-Business must gain admission to Business Administration by the time they have earned 90 units. In addition to administering the program, the AGSM also teaches courses in finance, accounting, marketing, and management information systems. The B.S. degree in Business Administration is awarded by the College of Humanities, Arts, and Social Sciences.

**Degree Requirements**

Students in the College of Humanities, Arts, and Social Sciences must meet three levels of requirements for the Bachelor of Arts or Bachelor of Science degree: general university requirements, college requirements, and major requirements.

**General University Requirements**

General university requirements are listed at the beginning of the Undergraduate Studies section. In addition, the College of Humanities, Arts, and Social Sciences has the following requirements and limitations.

**Unit Requirements**

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. A maximum of 216 units is allowed. After having credit for 216 units, students are not permitted to continue except in cases approved by the associate dean in which specific academic or professional reasons are involved.

**Credit Limitations**

Transfer students with credit from other institutions (advanced standing credit), receive a transfer profile from the Office of Undergraduate Admissions. The Student Academic Affairs Office evaluates the course work, indicating how the transferable credits are applied toward the degree. However, the following credit limitations may reduce the total number of units which apply toward the degree in the College of Humanities, Arts, and Social Sciences. Students should meet with an academic advisor in their major for questions regarding transfer credits.

The following credit limitations apply for all students enrolled in the college:

1. After completing 105 quarter units at a community college, students are not allowed further units for courses completed at a community college.
2. No more than 6 units in physical education activity courses may be applied toward the 180-unit requirement for the bachelor’s degree.
3. No 400 series courses and not more than three courses in the 300 series of courses may be counted toward the 180 unit requirement for the bachelor's degree.
4. No more than 5 units of credit may be taken per quarter in special studies courses. See specific restrictions under each departmental listing regarding credit toward the major in special studies courses.

**College Breadth Requirements**

The Student Academic Affairs Office, in consultation with the Executive Committee of the College of Humanities, Arts, and Social Sciences, determines which courses apply to the following requirements. It is the student's responsibility to verify those courses that fulfill these subject requirements. To search for courses that meet specific breadth requirements, visit classes.ucr.edu.

Courses taken in the department or program of a student's major (including courses cross-listed with the major) may not be applied toward the breadth requirements except for History majors in connection with the World History
requirement, English majors in connection with the English Composition requirement, Ethnic Studies majors in connection with the Ethnicity requirement, and foreign language majors in connection with the Foreign Language requirement. However, courses outside the major discipline, but required for the major, may be applied toward satisfaction of these requirements. Students who elect a double major may apply courses in one of the majors toward satisfaction of the breadth requirements.

For the following requirements, a course is defined as a block of instruction which carries credit of 4 or more units.

### College of Humanities, Arts, and Social Sciences

#### Breadth Requirement Unit Summary

**For the B.A.**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>English Composition</td>
<td>Varies</td>
</tr>
<tr>
<td>Humanities</td>
<td>20</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>16</td>
</tr>
<tr>
<td>Ethnicity (4 units)</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language (level 4)</td>
<td>16</td>
</tr>
<tr>
<td>Natural Sciences and Mathematics</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>72</td>
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</tbody>
</table>

**For the B.S.**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
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<tbody>
<tr>
<td>English Composition</td>
<td>Varies</td>
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<td>Humanities</td>
<td>20</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>16</td>
</tr>
<tr>
<td>Ethnicity (4 units)</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language (level 3)</td>
<td>12</td>
</tr>
<tr>
<td>Natural Sciences and Mathematics</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>68</td>
</tr>
</tbody>
</table>

1. The 4-unit ethnicity requirement can be applied to either the Humanities or Social Sciences requirement, depending on content.

No course may be applied to more than one breadth requirement, with the exception of the course taken to meet the Ethnicity requirement. Internship and independent studies courses may not be used to satisfy breadth requirements. Courses offered by or cross-listed with Business Administration, Education, and Physical Education may not be used to satisfy breadth requirements.

### English Composition

Students must demonstrate adequate proficiency in English Composition by completing a one-year sequence of college level instruction in English Composition with no grade lower than "C."

Students should enroll in an English composition course each quarter they are registered at UCR until the sequence of preliminary Entry Level Writing courses, if needed, and ENGL 001A, ENGL 001B, ENGL 001C is completed with satisfactory GPA.

Transfer students who have credit for one semester of English Composition from another institution are required to take two additional quarters, i.e., ENGL 001B and ENGL 001C.

Students have the option of using a score of 3 on the College Board Advanced Placement Test in English to satisfy ENGL 001A; they must complete ENGL 001B and ENGL 001C.

Students with a score of 4 or 5 on the College Board Advanced Placement Test in English have satisfied ENGL 001A and ENGL 001B; they must complete ENGL 001C.

### Humanities: 20 units

**For the B.A. degree**

1. One course in World History (At UCR, courses that satisfy this requirement are HIST 010 or HIST 015 or HIST 020.)

2. One course in the Fine Arts (Art, Art History, Dance, Media and Cultural Studies, Music, Theatre, or Creative Writing courses in poetry, fiction, or playwriting)

3. Two courses from among the following:
   a) Literature (offered by the departments of English, Comparative Literature and Foreign Languages, Hispanic Studies)
   b) Philosophy
   c) Religious Studies

4. One additional course from the following:
   a) History, the Fine Arts, Literature, Philosophy, Religious Studies
   b) A foreign language at level 3 or higher (Courses used in fulfillment of the foreign language requirement may not be used to meet this requirement.)
   c) A humanities course offered by Ethnic Studies; Creative Writing (courses in journalism); Humanities, Arts, and Social Sciences Interdisciplinary; Latin American Studies; Linguistics; or Women's Studies

**For the B.S. degree**

1. One course in World History (At UCR, courses that satisfy this requirement are HIST 010, HIST 015, or HIST 020.)

2. One course from the following:
   a) Fine arts (Art, Art History, Dance, Media and Cultural Studies, Music, Theatre, Creative Writing courses in poetry, fiction, or playwriting)
   b) Literature (taken in the departments of English, Comparative Literature and Foreign Languages, or Hispanic Studies)
   c) Philosophy
   d) Religious Studies

3. Three additional courses from the following:
   a) History, the Fine Arts, Literature, Philosophy, Religious Studies
   b) A foreign language at level 3 or above (Courses used in fulfillment of the foreign language requirement may not be used to meet this requirement.)
   c) Humanities courses offered by Ethnic Studies; Creative Writing (courses in journalism); Humanities, Arts, and Social Sciences Interdisciplinary; Latin American Studies; Linguistics; or Women's Studies

### Social Sciences: 16 units

1. One course in Economics or Political Science

2. One course in Anthropology, Psychology, or Sociology

3. Two additional social science-related courses from Comparative Ancient Civilizations, Ethnic Studies; Environmental Sciences; Geography (cultural geography courses); Human Development; Humanities, Arts, and Social Sciences Interdisciplinary; Women's Studies; or one of the disciplines in 1. or 2. above

### Ethnicity: 4 units

One course focusing on the general concepts and issues in the study of race and ethnicity in California and the United States. Courses that satisfy this requirement must concentrate on one or more of four principal minority groups (African American, Asian American, Chicano/Latino, and Native American). These courses must be comparative in nature, analyzing the minority group experience within the present and historical context of other racial and ethnic groups, such as European-American minorities. The courses are to be offered by or cross-listed with the Department of Ethnic Studies. Refer to the Programs and Courses section for the courses that fulfill the Ethnicity requirement.

### Foreign Language

Courses in American Sign Language may be used to meet this requirement.

**For the B.A. degree:** course level 4 or equivalent

This requirement may be satisfied by students (except for foreign language majors who satisfy the spirit of the language requirement by majoring in one or more languages) by completing the fourth-quarter level or its equivalent in one language at UCR (or at another college or university) with a minimum grade of "C" or by demonstrating proficiency at the
fourth-quarter level on a foreign language placement exam offered by one of the foreign language departments at UCR. This test does not yield unit credit; it only determines whether the Foreign Language requirement has been met, or in which course of the language sequence a student should enroll. The placement exam may be taken only once in each subject during a student’s UCR career. Students continuing with the same foreign language they completed in high school must take a placement exam (visit placementtest.ucr.edu for dates and locations). Credit will be allowed only at the course level for which they qualify according to the placement exam.

For the B.S. degree: course level 3 or equivalent
This requirement may be satisfied by students (except for foreign language majors who satisfy the spirit of the language requirement by majoring in one or more languages) by completing the third-quarter level or its equivalent in one language at UCR (or at another college or university) with a minimum grade of “C” or by demonstrating proficiency at the third-quarter level on a foreign language placement exam offered by one of the foreign language departments at UCR. This test does not yield unit credit; it only determines whether the Foreign Language requirement has been met, or in which course of the language sequence a student should enroll. The placement exam may be taken only once in each subject during a student’s UCR career. Students continuing with the same foreign language they completed in high school must take a placement exam (visit placementtest.ucr.edu for dates and locations). Credit will be allowed only at the course level for which they qualify according to the placement exam.

Natural Sciences and Mathematics: 20 units
1. One course in Mathematics, Statistics, or Computer Science
2. One course in Biological Sciences (Biochemistry, Biology, Botany and Plant Sciences, Entomology, Nematology, or Plant Pathology)
3. One course in Physical Sciences (Chemistry, Physics, Earth Sciences, excluding cultural Geography courses)
4. Two additional courses from the areas listed above or in physical and/or biological science courses offered in the Department of Environmental Sciences

Major Requirements
Detailed requirements for each major can be found under the department or program listing in the Programs and Courses section of this catalog.
A major in the College of Humanities, Arts, and Social Sciences shall consist of not fewer than 36 upper-division units. All courses applied toward the major and preparation for the major must be taken for a letter grade unless otherwise approved by the department chair. A 2.00 GPA in upper-division courses in the major is required for graduation. Once enrolled on this campus, students must complete all courses designated for a major in regular or summer sessions at UCR; exceptions to this policy must be approved by the department chair and by the associate dean.
Candidates for the B.A. degree may not receive more than 80 units of credit toward the degree for work taken in the major discipline (i.e., students must take at least 100 units outside the major discipline). Music and Dance majors may count a maximum of 102 units of music course work toward the B.A. degree (i.e., students must take at least 78 units outside the Music or Dance major).
Candidates for the B.S. degree may not receive more than 108 units of credit toward the degree for work taken in the major discipline (i.e., students must take at least 72 units outside the major discipline).
To receive the bachelor’s degree, transfer students must complete a minimum of 16 upper-division units in the major on the Riverside campus.
Students who have been away from the university for several terms should consult with their major departmental advisor about the requirements under which they may graduate. See the Catalog Rights Policy for Undergraduate Degrees in the Policies and Regulations section of this catalog.

College Policies and Procedures
For more information on UCR policies and regulations see the Policies and Regulations section of this catalog.

College Regulations
Refer to the Student Academic Affairs Web site at chassstudentaffairs.ucr.edu for more information on college policies and procedures.

Student Responsibility
Students are responsible for meeting deadline dates regarding enrollment, add/drop/withdrawal, change of grading basis, credit by examination, declaration of candidacy, and other actions. The dates are online at classes.ucr.edu and must be observed. Advising can be obtained in the student’s major department or in the college’s Student Academic Affairs Office, 3400 Humanities and Social Sciences Building.

Academic Advising
It is the student's responsibility to meet all graduation requirements: general university, college, and major.
Students with declared majors receive academic advising through their major department. Major advisors are available within each department or program (see a list of departmental staff for academic affairs at chassstudentaffairs.ucr.edu). All departments assign an academic advisor to each major and may require an advisor's approval before enrolling, submitting an academic petition, or making a change in the class schedule. Entering students who have not yet selected a major field of study should contact the Student Academic Affairs Office.
Undeclared and pre-business students are advised through the Student Academic Affairs Office. A staff of academic advisors is readily available to assist with questions pertaining to academic regulations and procedures, selection of courses which satisfy breadth requirements, major options, and alternatives. Students who need to confer with an advisor about overall degree requirements, academic difficulty, program planning, or assistance in selecting a major need to schedule an appointment with their advisor.

Course Enrollment
Students are required to register and enroll by the date set by the campus (visit classes.ucr.edu for details).
The recommended study load for undergraduate students is 15 to 16 units per quarter. This is the average quarterly load to ensure steady progress for graduation in four years. The minimal program for an undergraduate student to be considered full time is three courses (12 units) per quarter. The normal progress for an undergraduate student is four courses (16 units) per quarter.
A class schedule of fewer than 12 units must be approved by the associate dean (visit classes.ucr.edu for details). The college has established enrollment limits beyond which students require academic advisor approval. The limits are as follows: students in good academic standing, 20 units; students on academic probation, 17 units; students on subject-to-dismissal status, 15 units. Students on probation may not take courses on an “S/NC” basis.
After the second week of instruction, students may request changes by petition during a specified period. Petitions must usually be approved by the advisor and also, in the case of adds, by the instructor concerned. Changes to grading basis need advisor approval after the second week of classes. The associate dean must approve any changes in the class schedule requested after the regular petition period.
Courses (including Special Studies courses) can be added through the third week of instruction. Courses dropped after the second week of instruction will appear on the record with a “W” notation, signifying withdrawal. Students can withdraw from courses through the sixth week of instruction. The grading basis for a course can be changed through the eighth week of instruction. After the third week of instruction, a fee is required to file the petition to change the class schedule.
Enrollment on Satisfactory/No Credit Basis
Undergraduate students in good academic standing may receive credit for courses undertaken and graded “S” up to a limit of one-third of the total units undertaken and passed on the Riverside campus at the time the degree is awarded. Normally, this means no more than 4 units of “S/NC” per quarter. The total also includes courses graded only “S/NC.” Courses that are required in, or prerequisite to, a major may not be taken on a “S/NC” basis unless approved by the chair of the major department. Students on special status or limited status may take courses on a “S/NC” basis only with the approval of the associate dean.

A student may elect “S/NC” or delete “S/NC” from a course by filing a petition (enrollment adjustment form) with the Registrar. The deadline is the end of the eighth week of instruction and is listed each quarter at classes.ucr.edu. This deadline is strictly enforced.

Regulations governing the “S/NC” option are described under Credit and Grades in the Policies and Regulations section of this catalog.

Repetition of Courses
See Repetition of Courses in the Policies and Regulations section.

Part-time Study
For details, see Part-Time Study under the Finances and Registration.

Petitions
A petition is a form representing a student’s need or desire to be excepted from any standard rule or regulation in the university. It is the only way to obtain formal approval from the department, the college or school, the Registrar, or whomever has authority over a particular request. Some petitions carry a small fee; others are free.

An approved petition for a waiver or substitution in degree requirements represents an agreement between the student, the college or school, and in some cases, the department chair, granting the student an exception from the existing regulations.

Petitions are also used at UCR to change college or major, enroll in fewer units than regulations permit, make late changes to a class schedule, obtain credit by examination, concurrent enrollment, or withdraw from the university. Petitions for most of these exceptions are available in the Student Academic Affairs Office. Please note that petitions for retroactive actions more than one year old will not be approved.

Credit by Examination
To earn credit for a course by examination without formal enrollment in that course, students must be in residence and in good academic standing. Before the examination may be given, arrangements and approval for examination for degree credit must be made with the instructor appointed to give the examination, a faculty advisor (if the major department requires it), and the associate dean. Petitions must be filed with the Office of the Registrar no later than the third week of instruction. Credit by examination is not allowed for English Composition courses.

The results of all examinations for degree credit are entered on students’ records as though they had actually taken the courses of instruction. There is a $5 service charge for each petition. The credit by examination procedure may not be used as a means of improving a previous grade.

Undergraduate Credit for Graduate Courses
Students who have a GPA of at least 3.00 in all courses taken in the university or have shown exceptional ability in a special field may take a graduate course for undergraduate credit with the permission of the instructor concerned. Students must have completed at least 18 upper-division quarter units basic to the subject matter of the course.

Expected Progress for Undergraduate Students
At the close of each quarter, the courses, units, grades, and grade points earned are added to the student’s cumulative university record. This record summarizes progress toward a degree. Lack of adequate progress may jeopardize continued registration. Students can access their advisory degree check at growl.ucr.edu.

Applying for Graduation
To graduate from UCR, undergraduate students must file an application for graduation as specified by their college. Please note that the college no longer accepts the paper application; the online Application for Graduation is available at the CHASS Student Academic Affairs Web site, at chassstudentaffairs.ucr.edu and must be submitted by 4 p.m. of the deadline date listed at classes.ucr.edu. Applications are not accepted after the deadline established for the quarter.

Students should review their remaining requirements on growl each quarter. They should also contact their academic advisor in their major department or program two quarters before expected graduation to confirm remaining requirements. Completion of the degree depends upon completion of any work in progress. During the graduation quarter, any changes made to a student’s schedule after the third week of instruction should be immediately reported to the academic advisor.

If for any reason a student does not meet the requirements for graduation after filing the application, another application must be filed for the appropriate quarter. Students graduating in absentia after an absence of one or more quarters must apply for readmission to the university and file an application for graduation.

All course work, whether taken at UCR or elsewhere, must be completed by the last day of UCR’s finals week during the quarter of graduation (no GDs or Incomplete grades). Incomplete, IE, IP or GD grades on the transcript will stop the processing of the degree.

Once the application for graduation is filed, the student’s name will be entered on the appropriate degree list. Students who need to amend the prospective quarter of graduation and who have submitted an application for graduation petition must notify the Student Academic Affairs Office, in writing, as soon as possible.

Withdrawals
Students may withdraw from the university prior to the end of instruction, for serious personal reasons, with the approval of the associate dean. Forms are available in the Student Academic Affairs Office.

Preparing for the Professions
The wide variety of majors and programs available in the College of Humanities, Arts, and Social Sciences provides an excellent background and preparation for immediate entry into the job market or for graduate and professional schools. Some of these are listed below; however, students are urged to see their faculty advisor or a counselor in the Career Center for further information.

The Arts
Undergraduate majors in the arts at UCR are designed to provide a solid liberal arts education at the same time as they provide essential training in the practical techniques of the specific art field involved. This means that arts majors provide a broad educational background, on a par with the other majors in the college, which prepares each student for effective participation in any job market where educational breadth is important.

Through the thorough practical training in each art field, an increasing number of UCR students are finding attractive career opportunities in the visual arts, writing, dance, music, and theater arts. Not that it has become any easier to practice as an artist or performer; these remain options best followed by the most talented and determined. However, the opportunities in many arts-related fields are increasing as the role of the arts continues to expand. Such opportunities include positions in teaching, music and dance therapy, graphics, theater management, costume design, performing arts management, fine arts publication, the recording industry, the arts, and criticism. Moreover, new professions, which will open yet wider vistas in coming years, are evolving for those trained in the arts.

UCR students who graduate with a major in one of the arts have consistently gained admission to graduate schools at outstanding universities, conservatories, and professional schools throughout the country.

At UCR, students may major in Art, Art History, Creative Writing, Dance, Media and Cultural Studies, Music, or Theatre. At the graduate level, the M.A. degree is offered in Art History and in Music. M.F.A. degrees include Dance, Visual Art, and Creative Writing and Writing for the Performing Arts. A Ph.D. is offered in Dance History and Theory.
The Chancellor provides performance awards for excellence in the arts for students who have already achieved high proficiency upon entry into the university and who will continue to practice their art forms while students at UCR. For further information, contact the departments of Art, Dance, Music, Theatre, and Creative Writing.

The Gluck Fellows Program of the Arts at UCR provides Gluck Faculty, Graduate, and Undergraduate Fellows the opportunity to bring their respective art forms to elementary, middle, and high school students and nursing home residents who have little or no access to the arts. The departments of Art, Art History, Creative Writing, Dance, Music, and Theatre as well as the Sweeney Art Gallery and UCR/California Museum of Photography participate in the Gluck Fellows Program of the Arts. Students interested in the Gluck Fellows Program of the Arts should check with individual departments.

**Business Administration**
While no specific major is required for admission to most graduate schools of administration or management, the undergraduate programs in Business Administration, Business Economics, and the various majors offered in combination with Administrative Studies provide excellent preparation. At UCR, the curriculum in these majors stresses the principles of managerial decision making and methods of gathering and analyzing the diverse data on which decisions must be based.

It is also important to note that other majors in the liberal arts can serve as effective preparation for entry into the worlds of management and business. Any major curriculum that includes substantial emphasis on oral and written expression and analytic and critical thinking can serve this purpose, particularly if accompanied by a suitable cluster of courses in business and management topics. Internships, which are available in business and industry settings, can assist in clarifying educational and personal goals, allowing exploration of alternative career options, and providing the opportunity to apply academic background to a practical, real world experience.

Students who wish to pursue a graduate degree in the Business Administration field may wish to consider UCR’s A. Gary Anderson Graduate School of Management.

**Law**
Most law schools require a baccalaureate degree. Law schools do not require a uniform prelaw course of study or a specific college major; backgrounds in the physical sciences are as acceptable as those in the social sciences and humanities. However, law schools in general do recommend that the prelaw student attempt to reach several goals during the undergraduate years: an understanding of the development of social, political, and economic institutions; an ability to communicate well, both orally and in writing; the capacity to think clearly, carefully, and independently; and a habit of disciplined study. Therefore, there is no specific, formal prelaw curriculum that a student must take.

Most law schools require applicants to take the Law School Admission Test, administered regionally by the Educational Testing Service. The test is administered at UCR on three occasions during the year. Applications for and information about this test may be obtained in the Department of Political Science.

Students who are considering applying to law schools are strongly urged to consult with the prelaw advisor in the Department of Political Science, 2224 Watkins Hall.

**Librarianships**
All library schools accredited by the American Library Association require a baccalaureate degree for admission and usually a reading knowledge of one or two languages other than English. A broad general background, supported by the ability to read rapidly and intelligently, is helpful. The knowledge, in depth, of the literature of some subject area is especially advantageous. All subject fields, including the biological and natural sciences, the humanities, and the social sciences may prepare a student for graduate study in librarianship.

In addition to career opportunities in public, school, and academic libraries, special librarians may work in government agencies, and in commercial and industrial firms, such as pharmaceutical companies, banks, and advertising agencies.

**Museums, Archives, and Historic Preservation**
The American Association of Museums and The Society of American Archivists have designated the master’s degree as the professional degree level for careers in museums and archives. The Public History Program M.A. (Department of History) provides professional education and training for these careers, as well as for careers in general historic preservation and public history.

The UCR/California Museum of Photography is of significant value to those interested in photographic history and museum practices, as well as to those with creative interests in photography.

**Public Administration**
Government agencies offer many administrative career opportunities including jobs in personnel, budget administration, labor relations, program analysis and public information. These types of positions may require a bachelor’s or a master’s degree or a combination of degrees plus experience. Students interested in a career in public administration are encouraged to acquire a broad liberal arts education at the undergraduate level. An undergraduate major in any of the social sciences provides appropriate preparation for graduate work in public administration. Special attention is called to the majors in Political Science/Administrative Studies, Political Science/International Affairs, and Political Science/Public Service.

At UCR, students may gain valuable experience in government agencies through the Academic Internship Program. In addition to numerous local internship settings, there are quarter-away internships available in several Sacramento and Washington, D.C. offices. See the Career Center in the Services for Students section of this catalog.

**UC Center at Sacramento** offers student internship opportunities. Students live in UC housing, near the state Capitol, and intern from 24 to 32 hours per week with members of the state legislature, government offices, or nonprofit agencies. See UC Center at Sacramento in the Introducing UC Riverside section of this catalog.

**Social Welfare**
Full professional training usually consists of two years of graduate training leading to the degree of Master of Social Work. Students planning to seek employment in social welfare after completing the baccalaureate degree must prepare in the fields of psychology (particularly child and adolescent psychology and the study of personality), sociology (with emphasis on society and personality, social thought and social organization), economics, political science, anthropology, and statistical and research methods in the social sciences. Students who plan to enter a professional school of social work following undergraduate training should consult with an advisor at UCR for the best selection of classes.

Career opportunities for students with the B.A. or B.S. degree include positions as deputy probation officer, social worker, group counselor, corrections officer, substance abuse counselor, and community relations worker. Internships provide useful experience as part of the undergraduate program in preparation for such careers.

**Teaching Credential Programs**
Students planning a career as a teacher may wish to consider one of the majors that offers a subject-matter preparation program.

Specific details and counseling are available at individual department offices and the Graduate School of Education and at education.ucr.edu.

Students who are considering working toward any teaching credential should attend one of the credential information seminars offered by the Teacher Education Services Office (1124 Sprout) for advice in planning an academic program.

**The Prepare to Teach Program** is a pre-professional program open to undergraduates from all majors who are interested in teaching in California elementary schools. Through this program, prospective elementary school teachers gain early field experience in the schools and learn more about the profession. Advising includes information on state requirements that are best met before graduation. For more information, contact the Office of Interdisciplinary Programs; 2417 Humanities and Social Sciences; or call (951) 827-2743.
College of Natural and Agricultural Sciences

With strengths in the biological, physical, mathematical, and agricultural sciences, the college offers the Bachelor of Arts and the Bachelor of Science degrees. The B.A. degree, when offered, provides for both broad general education and major field specialization. The B.S. degree stresses advanced work in the major and associated fields. All degree programs provide students with an opportunity to develop an understanding and appreciation of our relationship to the world around us, in addition to preparing them for careers in their fields of specialization.

The variety of degree programs and the flexibility of each provide great freedom of choice to students. Cooperative efforts between departments in the college provide for interdepartmental (interdisciplinary) majors. Students may elect to take double majors within the college or between this college and another. See the college's Undergraduate Academic Advising Center for information on double majors. Individual majors may be planned for students who find that individual goals can be accommodated through the resources and interested faculty at UCR. Information and regulations on individual majors may be obtained from the college's Undergraduate Academic Advising Center.

For information on graduate degrees see the Graduate Studies section of this catalog.

Majors

A major is a coordinated group of upper-division courses (100-199 series) in a field of specialization. Early choice of a major is desirable. Students must declare a major by the time they have earned 90 units. The courses for any particular major are specified by the relevant department or departmental group, and they must provide at least 36 upper-division units of credit, normally taken on a letter grade basis. No more than 84 units in any one discipline may be applied to the degree.

Admission to Majors

Admission of Freshmen Applicants to majors in the College of Natural and Agricultural Sciences who excel in the academic criteria, with additional emphasis on advanced mathematics and laboratory science preparation, will be considered. It is strongly recommended that students have sufficient mathematics competency to qualify for college-level calculus at the time of enrollment.

Mathematics Advisory Examination All incoming CNAS freshmen who are not exempt must take the Mathematics Advisory Examination (MAE) prior to attending the summer Bear Facts Orientation. Certain MAE scores that indicate the need for additional work in intermediate algebra will place students in a Community College Referral (CCR) college-level intermediate algebra course. This means that these students will need to complete an intermediate algebra course prior to enrolling in any Science and Math courses required for CNAS majors. Students will have the option to enroll in the CCR college-level intermediate algebra course during the summer prior to their first Fall quarter at UC Riverside or, at the latest, during their first Fall quarter. Students who fail to complete the CCR college-level intermediate algebra course with a grade of “C” or better will not be able to continue as CNAS students in the Fall quarter for those who take the course in the summer or the Winter quarter for those taking the course in the Fall quarter of their freshman year.

Students may complete the CCR college-level intermediate algebra course at any community college during the Summer or may complete an appropriate Riverside Community College course taught on the UCR campus in the Fall. For more information about the UCR-RCC program, students may visit rcalgebra.ucr.edu. For more information about offerings of intermediate algebra courses at other California community colleges, students may visit placementtest.ucr.edu/mae/cclist.html.

<table>
<thead>
<tr>
<th>Department/Program</th>
<th>Degree</th>
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<tbody>
<tr>
<td>Biochemistry</td>
<td>B.A.</td>
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<tr>
<td>Biology emphasis</td>
<td>B.S.</td>
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<tr>
<td>Chemistry emphasis</td>
<td>B.A.</td>
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<tr>
<td>Medical Sciences emphasis</td>
<td>B.A.</td>
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<tr>
<td>Biological Sciences</td>
<td>B.S.</td>
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<tr>
<td>Bioinformatics and Genomics track</td>
<td>B.S.</td>
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<tr>
<td>Biology track</td>
<td>B.S.</td>
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<tr>
<td>Cell, Molecular, and Development</td>
<td>B.S.</td>
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<tr>
<td>Biology track</td>
<td>B.S.</td>
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<tr>
<td>Conservation Biology track</td>
<td>B.S.</td>
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<tr>
<td>Environmental Toxicology track</td>
<td>B.S.</td>
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<tr>
<td>Evolution and Ecology track</td>
<td>B.S.</td>
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<tr>
<td>Medical Biology track</td>
<td>B.S.</td>
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<tr>
<td>Microbiology track</td>
<td>B.S.</td>
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<tr>
<td>Plant Biology track</td>
<td>B.S.</td>
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<tr>
<td>Biology</td>
<td>B.A.</td>
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<tr>
<td>Chemistry</td>
<td>B.A.</td>
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<tr>
<td>Chemical Physics option</td>
<td>B.S.</td>
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<tr>
<td>Environmental Chemistry option</td>
<td>B.S.</td>
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<tr>
<td>Earth Sciences</td>
<td>B.S.</td>
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<tr>
<td>Geology</td>
<td>B.A.</td>
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<tr>
<td>Geology option</td>
<td>B.S.</td>
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<tr>
<td>Geophysics option</td>
<td>B.S.</td>
</tr>
<tr>
<td>Geoscientific Education</td>
<td>B.A.</td>
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<tr>
<td>Entomology</td>
<td>B.A.</td>
</tr>
<tr>
<td>Environmental Sciences</td>
<td>B.S.</td>
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<tr>
<td>Environmental Toxicology option</td>
<td>B.A.</td>
</tr>
<tr>
<td>Natural Science option</td>
<td>B.A.</td>
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<tr>
<td>Social Science option</td>
<td>B.A.</td>
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<tr>
<td>Environmental Sciences (joint with</td>
<td>B.S.</td>
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<tr>
<td>California State University, Fresno)</td>
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<tr>
<td>Mathematics</td>
<td>B.S.</td>
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<tr>
<td>Pure Mathematics</td>
<td>B.A.</td>
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<tr>
<td>Applied Mathematics</td>
<td>B.A.</td>
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<tr>
<td>Biology option</td>
<td>B.A.</td>
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<tr>
<td>Chemistry option</td>
<td>B.A.</td>
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<tr>
<td>Economics option</td>
<td>B.A.</td>
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<tr>
<td>Environmental Sciences option</td>
<td>B.A.</td>
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<tr>
<td>Physics option</td>
<td>B.A.</td>
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<tr>
<td>Statistics option</td>
<td>B.A.</td>
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<tr>
<td>Computational Mathematics</td>
<td>B.A.</td>
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<tr>
<td>Mathematics for Secondary School Teachers</td>
<td>B.S.</td>
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<tr>
<td>Neuroscience</td>
<td>B.A.</td>
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<tr>
<td>Physics</td>
<td>B.A.</td>
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<tr>
<td>Physics option</td>
<td>B.S.</td>
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<tr>
<td>Plant Biology</td>
<td>B.A.</td>
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<tr>
<td>Statistics</td>
<td>B.A.</td>
</tr>
<tr>
<td>Statistical Computing option</td>
<td>B.S.</td>
</tr>
<tr>
<td>Quantitative Management option</td>
<td>B.S.</td>
</tr>
</tbody>
</table>

Disciplinary Minors

| Applied Statistics                  | Global Climate Change |
| Health Sciences                     | Mathematics           |
| Entomology                          | Neuroscience          |
| Environmental Sciences              | Plant Biology         |
| Geology                             | Plant Biology         |

CNAS Undergraduate Academic Advising Center
1223 Pierce Hall
University of California, Riverside
Riverside, CA 92521
(951) 827-7294; fax (951) 827-2243

For more information about the UCR-RCC program, students may visit rcalgebra.ucr.edu. For more information about offerings of intermediate algebra courses at other California community colleges, students may visit placementtest.ucr.edu/mae/cclist.html.
Students who place in but do not plan to complete a CCR college-level intermediate algebra course by the end of their first quarter of enrollment at UC Riverside, should file a Change of Major Petition to an appropriate, non-Calculus-requiring major in the College of Humanities, Arts, and Social Sciences (CHASS) or petition the CNAS Associate Dean of Student Academic Affairs to remain in CNAS under special circumstances. Students who pass the CCR college-level intermediate algebra course with a “C” or better will be advised to enroll in Math 8A for the following quarter at UC Riverside.

Transfer Students The College of Natural and Agricultural Sciences emphasizes additional math and science preparation in its selection of students. Applicants must have a GPA of 2.70 or better in transferable course work. Applicants to majors in Biochemistry, Biological Sciences, Biology, and Chemistry must complete one-year sequences in three areas of science and/or mathematics. Applicants to the Plant Biology major must complete one-year sequences in two areas of science, with an additional one-year sequence of mathematics highly recommended but not mandatory. The same preparation is recommended for applicants to other majors. For more information regarding these criteria, students may visit assist.org.

The Intersegmental General Education Transfer Curriculum (IGETC) is not accepted for students planning to transfer to the College of Natural and Agricultural Sciences. Although courses taken to satisfy the IGETC may be applied to the college’s breadth pattern, students should concentrate on completing transferable mathematics and science courses.

Choosing a Major, Undeclared Majors
Although freshmen may choose an academic major on entering UCR, those who are unsure about specific academic goals may request to be admitted to the college as an undeclared student, choosing one of three options in this category.

1. Undeclared — Life Sciences, for students interested in Biochemistry, Biology, Biological Sciences, Entomology, Neuroscience, or Plant Biology.
2. Undeclared — Mathematic Sciences, for students interested in Mathematics or Statistics.
3. Undeclared — Physical Sciences, for students interested in Chemistry, Earth Sciences, Environmental Sciences, or Physics.

Students who follow the recommended program for any of the three undeclared options will be prepared to enter a wide variety of science majors. Even if their plans change several quarters later, they will have avoided academic difficulty by planning a sensible, basic preliminary strategy. Individuals entering as students in one of the three undeclared options are advised through the college’s Undergraduate Academic Advising Center by both professional academic advisors and faculty mentors from diverse science departments. Actual admission into degree programs is predicated upon successful completion of courses with satisfactory grades. Transfer into another college requires performance judged to be satisfactory by that college.

All students with 90 or more units toward a degree are expected to declare a major. To declare a major, obtain approval from the college’s Undergraduate Academic Advising Center by filing a Change of Major Petition. Students are expected to declare a major by the beginning of their junior year (completion of 90 units). Students who fail to declare a major by this time will not be permitted to register until an approved declaration of major has been submitted to the Associate Dean at the CNAS Undergraduate Academic Advising Center.

If students in one of the three undeclared options feel their interests lie primarily in the areas of humanities or social sciences, advising can be obtained in the College of Humanities, Arts, and Social Sciences, (951) 827-3683. Students interested in engineering or computer science can be advised in the Bourns College of Engineering, (951) 827-ENGR (3647).

Double Majors
A declaration of a second major must be filed at the college’s Undergraduate Academic Advising Center at least two quarters before graduation and approved by both academic major advisors and the associate dean. At the time of filing, a student must have completed 120 units, with at least 18 upper-division units in the primary major and at least 8 upper-division units in the secondary major. Of the required upper-division units, a minimum of 24 (no more than 4 of which can be 190-199 courses) must be unique to each major. To declare a second major, a student must have a cumulative GPA of 2.0 or higher and a major GPA of 2.7 or higher. A student may elect a second major in a department or interdepartmental group of another college. A declaration of such a second major must be signed by the associate deans of both colleges and filed by the student with the primary college. A student must meet requirements of both primary and secondary majors and the college requirements of the primary major if they are both in the same baccalaureate class. If the two majors lead to different degrees (B.S. and B.A.), that fact is noted on the transcript, but only one diploma indicating both degree designations will be issued upon successful completion of such a program. Furthermore, if the double major is a mixed B.S./B.A., the college requirements for both majors must be met. Information on how to file for double majors may be obtained from the college’s Undergraduate Academic Advising Center.

Changing Majors
Students may change majors if they are in good standing and not expected to exceed the unit limitation of 216 units toward the degree. Students can petition to change their major within the college or transfer from another college to the College of Natural and Agricultural Sciences. Students interested in transferring to the College of Natural and Agricultural Sciences should consult with an advisor in the CNAS Undergraduate Academic Advising Center regarding specific prerequisite courses. Students who have attained junior standing are reviewed for course coverage and GPA for the new major.

Students who fail to attain a GPA of 2.00 (“C”) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major.

Minors
Each minor in the College of Natural and Agricultural Sciences consists of not fewer than 20 nor more than 28 units of organized upper-division courses. No more than 4 units of 190-199 courses may be used in fulfilling the upper-division unit requirement for a minor. Of the specified upper-division units, a minimum of 16 must be unique to the minor and may not be used to satisfy major requirements. The CNAS Undergraduate Academic Advising Center is responsible for student and administrative issues pertaining to the minors offered by CNAS. Minors offered by other colleges are administered by the department, program, or interdisciplinary program offering the minor. Students must file a declaration of a minor by filing a petition with the college’s Undergraduate Academic Advising Center at least two quarters before graduation and must be in good academic standing at the time of filing. A minor requires the signature of the Academic Advisor that supervises the minor and the signature of the associate dean.

University Honors Program
For a description of the University Honors Program, see Educational Opportunities in the section Introducing UC Riverside. For a listing of requirements and courses, refer to University Honors Program in the Programs and Courses section.

Financial Assistance
The College of Natural and Agricultural Sciences maintains funds for undergraduate scholarships. Application materials and information are available in the college’s Undergraduate Research Office during spring quarter. Visit cnas-ugresearch.ucr.edu or e-mail cnassaao@ucr.edu.

Freshman Advising Seminars
Freshman Advising Seminars are designed to introduce students to a wide variety of topics in the College of Natural and Agricultural Sciences, including major selection, curriculum planning, career options and goals in the sciences, opportunities for undergraduate research, development of learning and study skills, ethics in research and education and an introduction to the faculty in the college. Each quarter’s offerings are listed at classes.ucr.edu under NASC 091 and NASC 093. Topics vary from quarter to quarter.
The seminars have no prerequisites, and freshmen are given enrollment priority. Each seminar is limited to 24 students to encourage discussion and carries 1 or 2 units of academic credit, although units are not applied toward major requirements. The seminars are graded on an “S/NC” basis.

Freshman Discovery Seminars

Freshman Discovery Seminars are designed to introduce students to a wide variety of topics and current issues that UCR faculty explore. For the natural and agricultural sciences, each quarter’s offerings are listed online at classes.ucr.edu under NASC 092. Topics vary from quarter to quarter. The current quarter’s offerings may be found at discoveryseminars.ucr.edu.

The seminars have no prerequisites, and freshmen are given enrollment priority, although sophomores may enroll with the instructor’s consent, if space is available. Each seminar is limited to 20 students, to encourage discussion. Students may enroll in a seminar offered by any of the UCR colleges (ENGR 092, HASS 092, or NASC 092), regardless of their major. Each seminar carries 1 or 2 units of academic credit, although units are not applied toward major requirements. The seminars are graded on an “S/NC” basis.

Degree Requirements

Students in the College of Natural and Agricultural Sciences must meet three levels of requirements for the B.A. or B.S. degree: general university requirements, college requirements, and major requirements.

General University Requirements

General university requirements are listed at the beginning of the Undergraduate Studies section. For information on university regulations see the Policies and Regulations section of this catalog.

In addition to the above general university requirements, the College of Natural and Agricultural Sciences has the following unit requirement.

Unit Requirement

Students are not normally expected to take significantly more than 180 units to obtain the bachelor’s degree. After earning credit for 216 units, a student will not be permitted to continue except by approval of the associate dean when specific academic or professional reasons are involved.

The following credit limitations apply for all students enrolled in the college:

1. After completing 105 quarter units at a community college, students are not allowed further units for courses completed at a community college.
2. No more than 6 units in physical education activity courses may be applied toward the bachelor’s degree.
3. No more than three courses in the 300 series of courses may be applied toward the bachelor’s degree.

College Policy for the Intersegmental General Education Transfer Curriculum

The Intersegmental General Education Transfer Curriculum is not accepted for students planning to transfer to the College of Natural and Agricultural Sciences. It does not adequately cover the lower-division mathematics and science prerequisites required for majors in this college.

College Breadth Requirements

### College of Natural and Agricultural Sciences

<table>
<thead>
<tr>
<th>Breadth Requirement Unit Summary</th>
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<tbody>
<tr>
<td><strong>For the B.A.</strong></td>
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<tr>
<td>English Composition</td>
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<tr>
<td>Humanities</td>
</tr>
<tr>
<td>Social Sciences</td>
</tr>
<tr>
<td>Ethnicity (4 units)</td>
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<tr>
<td>Foreign Language</td>
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<tr>
<td>Natural Sciences and Mathematics</td>
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<tr>
<td>Total Units</td>
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<tr>
<td>Composition</td>
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<tr>
<td><strong>For the B.S.</strong></td>
</tr>
<tr>
<td>English Composition</td>
</tr>
<tr>
<td>Humanities</td>
</tr>
<tr>
<td>Social Sciences</td>
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<tr>
<td>Ethnicity (4 units)</td>
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<tr>
<td>Natural Sciences and Mathematics</td>
</tr>
<tr>
<td>Additional Courses</td>
</tr>
<tr>
<td>Total Units</td>
</tr>
<tr>
<td>Composition</td>
</tr>
</tbody>
</table>

1. The 4-unit ethnicity requirement can be applied to either the Humanities or Social Sciences requirement, depending on content.

For the following requirements, a course is defined as a block of instruction that carries credit of 4 or more units. Courses taken in the department or program of a student's major (including courses cross-listed with the major) may not be applied toward the breadth requirements except for Biology majors and Biological Sciences majors in connection with the Biological Sciences requirement. However, courses outside the major discipline, but required for the major, may be applied toward satisfaction of these requirements.

Some majors in the college may have specific course requirements for meeting the following breadth requirements. Check under individual major requirements in the Programs and Courses section of this catalog.

Requirements are for both the B.A. and the B.S. degrees unless specified separately.

### English Composition

Students must demonstrate adequate proficiency in English Composition by completing a one-year sequence of college-level instruction in English Composition with no grade lower than “C.” UCR’s sequence is ENGL 001A, ENGL 001B, and ENGL 001C. ENGL 01HC or ENGL 01SC may be substituted for ENGL 001C, but only one of these courses can be taken for credit. Transfer students who have credit for one semester of English Composition from another institution must take two additional quarters (i.e., ENGL 001B and ENGL 001C).

Students can use a score of 3 on the College Board Advanced Placement Test in English to satisfy ENGL 001A; they must complete ENGL 001B and ENGL 001C. Students with a score of 4 or 5 on the College Board Advanced Placement Test in English have satisfied ENGL 001A and ENGL 001B; they must complete ENGL 001C.

Beginning with their initial matriculation, students should enroll in an English composition course each quarter they are registered at UCR until the sequence of preliminary Entry Level Writing courses, if needed, and ENGL 001A, ENGL 001B, and ENGL 001C is completed with satisfactory GPA. A student may not receive baccalaureate credit for any work in English composition taken prior to completing the Entry Level Writing Requirement.
 Humanities  
For the B.A. degree: 20 units  
1. One course in World History (At UCR, courses that satisfy this requirement are HIST 010, HIST 015, or HIST 020.)  
2. One course in the fine arts (Art; Art History; Creative Writing courses in poetry, fiction, or playwriting; Dance; Media and Cultural Studies; Music; Theatre or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences)  
3. Two courses from among the following:  
   a) Literature taken in the departments or programs in Comparative Literature and Foreign Languages, English, Media and Cultural Studies, Hispanic Studies, or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
   b) Philosophy, taken in the Department of Philosophy, or from among courses within this discipline as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
   c) Religious Studies, taken in the Department of Religious Studies, or from among courses within this discipline as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
4. One additional course from the following:  
   a) History, the Fine Arts, Literature, Philosophy, Religious Studies  
   b) A foreign language at level 4 or above  
   c) A humanities course offered by Ethnic Studies; Comparative Ancient Civilizations; Creative Writing (courses in journalism); Humanities, Arts, and Social Sciences; Latin American Studies; Linguistics; Media and Cultural Studies; or Women's Studies  
No course used to satisfy the English Composition requirement will apply toward Humanities credit.  
No more than two courses in performance may be counted toward the Humanities requirement.  
For the B.S. degree: 12 units  
1. One course in world history (At UCR, courses that satisfy this requirement are HIST 010, HIST 015, or HIST 020.)  
2. One course from among the following:  
   a) Fine arts (Art; Art History; Creative Writing courses in poetry, fiction, or playwriting; Dance; Media and Cultural Studies; Music; Theatre or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences)  
   b) Literature taken in the departments or programs in Comparative Literature and Foreign Languages, English, Spanish Studies, Media and Cultural Studies or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
   c) Philosophy, taken in the Department of Philosophy, or from among courses within this discipline as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
   d) Religious Studies, taken in the Department of Religious Studies, or from among courses within this discipline as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
3. One additional course chosen from the following:  
   a) History, the Fine Arts, Literature, Philosophy, Religious Studies  
   b) A foreign language at level 3 or above  
   c) Humanities courses offered by Ethnic Studies; Comparative Ancient Civilizations; Creative Writing (courses in journalism); Humanities, Arts, and Social Sciences; Latin American Studies; Linguistics; Media and Cultural Studies; or Women's Studies  
No course used to satisfy the English Composition requirement will apply toward Humanities credit.  
No more than one course in performance may be counted toward the Humanities requirement.  
Social Sciences  
For the B.A. degree: 16 units  
1. One course must be taken in the departments of Economics or Political Science or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
2. One course must be taken in the departments of Anthropology, Psychology, or Sociology, or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
3. Social science courses offered by Ethnic Studies; Environmental Sciences; Geography (cultural geography courses); Human Development; Humanities, Arts, and Social Sciences; Women's Studies, or one of the disciplines in 1. or 2. above  
For the B.S. degree: 12 units  
1. One course must be taken in the departments of Economics or Political Science or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
2. One course must be taken in the departments of Anthropology, Psychology, or Sociology, or from among courses within these disciplines as designated by the Executive Committee of the College of Humanities, Arts, and Social Sciences  
3. Social science courses offered by Ethnic Studies; Environmental Sciences; Geography (cultural geography courses); Human Development; Humanities, Arts, and Social Sciences; Women's Studies; or one of the disciplines in 1. or 2. above  
Course work that may be taken to be used in partial satisfaction of the Humanities and the Social Sciences requirements must be evaluated by the college's Academic Advising Center. The college's Academic Advising Center, in consultation with the college Executive Committee, determines which courses apply to these requirements. It will implement this policy. It is the student's responsibility to verify those courses that fulfill either the Humanities or the Social Sciences requirement, particularly the series of courses in cultural geography.  
Ethnicity: 4 units  
One course dealing with general concepts and issues in the study of race and ethnicity in California and the United States. Courses that satisfy this requirement must concentrate on one or more of four principal minority groups (African American, Asian American, Chicano/Latino, and Native American). These courses must be comparative in nature, analyzing the minority group experience within the present and historical context of other racial and ethnic groups, such as European-American minorities. The courses are to be offered by or cross-listed with the Department of Ethnic Studies. Regardless of the student's college and major, the course may be counted toward the Humanities or the Social Sciences graduation requirements, depending upon the course's content as evaluated by the College of Humanities, Arts, and Social Sciences Executive Committee. Check with the college's Undergraduate Academic Advising Center for the courses that fulfill the Ethnicity requirement.  
Foreign Language  
For the B.A. degree: 16 units  
This requirement may be fulfilled in one language by completing course 4 with a minimum grade of “C” or demonstrating equivalent proficiency; or by completing course 2 with a minimum grade of “C” in each of the two languages; or by demonstrating equivalent proficiency (level 2) in each of two languages. American Sign Language may also be used to satisfy this requirement. Biology and Neuroscience majors must complete four quarters
of one language. Students who are pursuing a B.A. degree and who have not completed a foreign language course may enroll in a level-1 foreign language course. However, students must take a placement exam if they plan to take a course in the same foreign language that they studied in high school. The placement exam may be taken only once in each subject during a student’s UCR career. Transfer students who have taken a college-level foreign language course should consult with an advisor.

**Natural Sciences and Mathematics: 20 units**
1. One course in Mathematics, Statistics, or Computer Science
2. One course in Biological Sciences (Biochemistry, Biology, Entomology, Nematology, Plant Biology, or Plant Pathology); the course must include a laboratory
3. One course in Physical Sciences (Chemistry, Physics, Earth Sciences, excluding cultural geography courses)
4. Two additional courses from areas (2) or (3) above or in physical and/or biological science courses offered in the Department of Environmental Sciences

This requirement may automatically be satisfied by lower-division requirements for the major.

**Additional Courses: 16 units**
*For the B.S. degree:* An additional 16 units of substantive course work in the student’s chosen major or fields related to the major is required. The additional course work is specified by the major department.

**Major Requirements**
Detailed requirements for each major are found under the department listings in the Programs and Courses section of this catalog.

A major in the College of Natural and Agricultural Sciences shall consist of not fewer than 36 nor more than 60 upper-division units. No more than 9 units of courses in the 190-199 series may be counted in fulfilling the upper-division units needed for the major.

By the beginning of the junior year, students must consult with their advisor and choose a major. A GPA of at least 2.00 (C) in the upper-division courses taken in the major field is required for graduation.

**Life Sciences Core Curriculum**
A lower-division core curriculum prepares students for a wide variety of majors, including Biochemistry, Biology, Biological Sciences, Entomology, Neuroscience, and Plant Biology. Students complete a uniform core curriculum prior to advancing to upper-division courses. The curriculum is Introductory Biology (1 year, including laboratory), General Chemistry including laboratory (1 year), Organic Chemistry (1 year), Calculus (2 quarters), Physics including laboratory (3 year), Statistics (1 quarter), and Introductory Biochemistry (1 quarter). No more than 12 units of upper-division life sciences courses not being used to satisfy the core may be taken prior to completion of the core.

**College Policies and Procedures**
For detailed information on UCR policies and regulations see the Policies and Regulations section of this catalog.

**College Regulations**
Detailed information and specifics with regard to the college regulations governing undergraduate student status as approved by the faculty and contained in the Manual of the Riverside Division of the Academic Senate may be obtained from a faculty advisor or the college’s Undergraduate Academic Advising Center.

**Student Responsibility**
Students are responsible for meeting deadline dates regarding enrollment, add/drop, change of grading basis, credit by examination, withdrawal, applications for graduation, declaration of candidacy, and other actions. The deadline dates are listed at classes.ucr.edu and must be observed. Academic advising can be obtained in the college’s Undergraduate Academic Advising Center, 1223 Pierce Hall.

**Faculty Mentors**
All students who declare a major upon entrance to the College of Natural and Agricultural Sciences are assigned to a department or interdepartmental faculty oversight committee granting the degree for that major or area of specialization. For assignment of faculty mentors, new students should report to the Undergraduate Academic Advising Center. Students in one of three undeclared options in the college are also advised in the college’s Undergraduate Academic Advising Center.

**Professional Academic Advisors**
Students should keep in touch with their professional academic advisor housed in the Undergraduate Academic Advising Center on all academic matters, including choice of courses, consideration of a major, and requirements for graduation. Before consulting the academic advisor, students should formulate a tentative program according to their interests and needs and should be familiar with general university, college, and major requirements.

It is important that each student keep in mind that the advisor serves to assist students but does not administer the student’s program. Students must be responsible for ensuring that they meet all requirements for graduation.

**Course Enrollment**
Before each quarter, students advance enroll in all courses they plan to take. Every student’s course schedule must be approved by the student’s academic advisor. Students are expected to register and enroll by the date set by the campus (visit classes.ucr.edu for details).

Since the college expects all students to make regular progress toward their degrees, class schedules of less than 12 units must be approved by the associate dean. Repeated courses are considered part of the total unit load. Students on probation may not register for more than 15 units in a quarter without consent of the associate dean. No student may enroll in less than 8 units (two classes).

During the first two weeks of the quarter, students make course enrollment changes via the GROWL registration system, and approvals by academic advisors and instructors are generally not required. After the second week of instruction ends, students must file an enrollment adjustment form with the Office of the Registrar to make changes. With the approval of their academic advisor and the course instructor, students may add courses to their class schedule up to the end of the third week of classes. With the approval of their academic advisor, students may drop a course up to the end of the sixth week or change the grading basis up to the end of the eighth week. For courses dropped after the second week, a “W” appears on the transcript, indicating withdrawal. Students may withdraw from all their courses up until the end of the tenth week of instruction. Students exercising this option will receive “Ws” in all their courses for that quarter.

**Enrollment on a Satisfactory/No Credit Basis**
Students in this college who are not on probation may take nonmajor courses on an “S/NC” basis and other courses graded only on an “S/NC” basis, provided they do not exceed one third of the total units undertaken and passed (graded “S”) on the UCR campus at the time the degree is awarded. Lower-division mathematics or science courses that are prerequisites to major courses cannot be taken on an “S/NC” basis.

A student may elect “S/NC” or delete “S/NC” from a course during the GROWL enrollment period or later in the quarter by filing a petition (enrollment adjustment form) with the Office of the Registrar. The deadline is the end of the eighth week of instruction and is listed each quarter at classes.ucr.edu.

Regulations governing the “S/NC” option are described under Credit and Grades in the Policies and Regulations section of this catalog.

**Credit by Examination**
A student may petition for the privilege of examination for degree credit without formal enrollment in a particular course but must be in residence and not on academic probation. Arrangements for examination for degree credit must be made with the student’s faculty mentor. Approvals of the faculty mentor, the associate dean of the college, and the instructor who is agreeing
to give the examination are necessary before the examination may be given. The results of all examinations for degree credit are entered on the student’s record as though the student had actually taken the courses of instruction.

Undergraduate Credit for Graduate Courses
Upper-division students with a UCR cumulative GPA of 3.00 or above may take a graduate course for undergraduate credit with the permission of the faculty advisor and the instructor concerned. See the CNAS Undergraduate Advising Center for more information.

Expected Progress for Undergraduate Students
At the close of each quarter, the courses, units, grades, and grade points earned are added to the student’s cumulative university record. This record summarizes progress toward a degree. UCR requires all undergraduate students to make Expected Progress each academic year. A full-time undergraduate student is considered to be making Expected Progress towards a baccalaureate degree if the student:

- Passes at least 45 units each academic year
- Declares a major by the time the student earns 90 units
- Follows a program of study consistent with the student’s declared or undeclared major

Students who have not earned a minimum of 37 units each academic year, have not declared a major by the time they earn 90 units, or are not following a program of study consistent with the student’s declared or undeclared major are not considered to be making Expected Progress towards a baccalaureate degree.

Students who fail to make Expected Progress may be ineligible for continued registration. Continued registration will be at the discretion of the associate dean.

Students can access their advisory degree check at growl.ucr.edu.

Declaration of Candidacy
If it is necessary to amend the prospective date of graduation during the quarter in which graduation is expected, the student must notify the college’s Undergraduate Academic Advising Center, in writing, as soon as possible. Applications for graduation are available in the college’s Undergraduate Academic Advising Center and must be filed in the office by the deadline established for the quarter in which graduation is expected. The deadline for filing applications for graduation is listed at classes.ucr.edu each quarter.

Applications are not accepted after the deadline established for the quarter in which the student intends to graduate. If for any reason the student does not meet the requirements for graduation after announcing candidacy, or fails to meet the deadline for filing, a new application must be filed for the subsequent quarter.

Students graduating in absentia after an absence of one or more quarters must apply for readmission to the university and file an Application for Graduation with the college Undergraduate Academic Advising Center.

Preprofessional Academic Preparation
Undergraduate academic preparation for several professional careers can be acquired in the College of Natural and Agricultural Sciences. Brief explanations of preprofessional academic programs follow.

Forestry Freshmen at UCR who plan to transfer after their sophomore year to UC Berkeley’s College of Natural Resources, forestry program, should enroll in UCR’s Plant Biology major. Interested students should consult the UC Berkeley General Catalog and contact Berkeley’s College of Natural Resources for advising. Assistance is also available from the College of Natural and Agricultural Science’s Undergraduate Academic Advising Center.

Medical Technology Training for Clinical Laboratory Scientist Prospective licensed clinical laboratory scientists should obtain a bachelor’s degree in either biochemistry, biology, or biological sciences. Students must apply independently to any of the state-approved programs in clinical laboratory science offered at various universities and hospitals. Following successful completion of this training and testing by the state of California the student is eligible to become a licensed clinical laboratory scientist. Prerequisites for entry change periodically, so interested students should obtain current information from the Medical and Health Careers Program at mhcp.ucr.edu. The state Department of Health also provides information on careers in this field.

Medicine and Dentistry Although the specific requirements of all medical and dental schools cannot be listed here, the general requirements are discussed below to indicate the various preprofessional programs available at UCR.

More than 90 percent of the students admitted to medical schools in the United States have attained the B.A. or B.S. degree, and a large proportion of those admitted to dental schools have three or more years of undergraduate work.

Leaders in medical and dental education urge prospective students to arrange their programs to obtain a broad general education, since the subject matter of the humanities and social sciences is not offered by the professional schools. It is recommended that students preparing to seek admission to medical or dental school obtain a bachelor’s degree, to which all of UCR’s preprofessional programs lead.

A student may satisfy the requirements for admission to medical or dental school in one of the following ways:

1. Completing the Biology major
2. Completing the Biochemistry major with a Medical Sciences emphasis
3. Completing a Biological Sciences major with the Medical Biology track
4. Majoring in any department but fulfilling concurrently the specific course requirements of medical or dental schools
5. Completing the major in Chemistry

<table>
<thead>
<tr>
<th>Course Work for Medicine and Dentistry</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>General chemistry</td>
<td>1</td>
</tr>
<tr>
<td>Organic chemistry</td>
<td>1</td>
</tr>
<tr>
<td>Physics</td>
<td>1</td>
</tr>
<tr>
<td>General biology</td>
<td>1</td>
</tr>
<tr>
<td>Upper-division biochemistry</td>
<td></td>
</tr>
<tr>
<td>Upper-division genetics</td>
<td></td>
</tr>
<tr>
<td>Mathematics through integral calculus</td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
</tr>
</tbody>
</table>

Most medical and dental schools recommend that the courses shown above be taken in a preprofessional degree program. These courses should include laboratories.

UCR/UCLA Thomas Haider Program in Biomedical Sciences Undergraduate students who entered UCR either as freshmen or transfer students may apply to the UCR/UCLA Thomas Haider Program in Biomedical Sciences. Students from any major can apply for one of the 24 seats reserved for UCR students. Refer to the UCR/UCLA Thomas Haider Program in Biomedical Sciences in the Programs and Courses section of this catalog.

Other Health Professions In addition to those described above, UCR offers the preprofessional requirements for entrance to other health professional schools, including optometry, pharmacy, podiatry, nursing, physical therapy, and physician assistant, among others. Information about these can be obtained from the Medical and Health Careers Program (visit mhcp.ucr.edu) or the Career Center (Veitch Student Center).

Teaching The California Commission on Teacher Credentialing has established guidelines and standards that prepare students for teaching credentials. For a description of how students can prepare for the multiple-subject (elementary) and single subject (secondary) credentials, refer to individual departments in the Programs and Courses section of this catalog.

After earning the bachelor’s degree, the prospective teacher registers for an additional year of training in education theory and practice needed to obtain a teaching credential. Anyone considering obtaining a teaching credential should attend one of the credential information seminars offered by the Teacher Education Services Office, 1124 Sproul Hall, and consult with an advisor early in the planning of an academic program.
California Teach-Science/Mathematics Initiative (CaTEACH-SMI) Students with a talent for science, math or engineering can translate that ability into preparing for a teaching career in California through the California Teach-Science/Mathematics Initiative (CaTEACH-SMI). Students who partner with CaTEACH-SMI at UCR can complete a science, engineering, or mathematics degree and become eligible for an intern teaching credential in just four years. Beginning with the freshman year, students intern in a local primary or secondary classroom with a mentor teacher. At UCR, they can meet other CaTEACH-SMI students and their UCR peer mentor at the program's Resource Center, where students can receive credential advising. The program's director is specially chosen from the mathematics and science faculty at UCR. SMI undergraduate interns may qualify for a stipend. For more information contact smi@ucr.edu or visit the Resource Center at 1104 Pierce Hall or smi.ucr.edu.

The Prepare to Teach Program is a preprofessional program open to undergraduates from all majors who are interested in teaching in California elementary schools. Through this program, prospective elementary school teachers gain early field experience in the schools and learn more about the profession. Advising includes information on state requirements that are best met before graduation. For more information, contact the Office of Interdisciplinary Programs; 2417 Humanities and Social Sciences; or call (951) 827-2743.

Veterinary Medicine The course work at UCR is designed to prepare students to meet the requirements for admission to California’s veterinary programs, the School of Veterinary Medicine at UC Davis, and the Western University of Health Sciences in Pomona. Students should consult the Medical and Health Careers Program (visit mhcp.ucr.edu), the UC Davis General Catalog, or the Western University Web site www.westernu.edu/veterinary/home.xml for additional details.

The Marlan and Rosemary Bourns College of Engineering

Office of Student Academic Affairs
A159C Bourns Hall
University of California, Riverside
Riverside, CA 92521-0144
(951) 827-ENGR (3647); www.engr.ucr.edu/studentaffairs

The Marlan and Rosemary Bourns College of Engineering emphasizes fundamental disciplines of engineering and computer science, introducing students to the new technologies necessary for today's highly technical environments.

The vision of the Bourns College of Engineering is to become a nationally recognized leader in engineering research and education. Its mission is to:

- Produce engineers with the educational foundation and the adaptive skills necessary to serve rapidly evolving technology industries
- Conduct nationally recognized engineering research focused on providing a technical edge for the United States
- Contribute to knowledge in both fundamental and applied areas of engineering
- Provide diverse curricula that will instill in our students the imagination, talents, creativity, and skills necessary for the varied and rapidly changing requirements of modern life and to enable them to serve in a wide variety of other fields that require leadership, teamwork, decision making, and problem-solving capabilities
- Be a catalyst for industrial growth in the Inland Empire region of Southern California

The majors offered by the college are based on the needs of the practicing professional and are founded on a solid core of mathematics and the sciences. Breadth in the educational experience is represented by requirements in arts, humanities, and social sciences and by emphasis on oral and written communication skills. The principles and practice of engineering and computer science are provided in lecture and related laboratory courses. All students must choose a set of technical electives, emphasizing synthesis and design, to complete their undergraduate programs.

Majors

| Bourns College of Engineering Undergraduate Majors and Options |
|----------------------|----------------------|
| **Major**             | **Degrees**          |
| Bioengineering         | B.S.                 |
| Business Informatics¹  | B.S.                 |
| Chemical Engineering   | B.S.                 |
| Biochemical Engineering|                     |
| Bioengineering         |                     |
| Chemical Engineering   |                     |
| Nanotechnology         |                     |
| Computer Engineering   | B.S.                 |
| Computer Science       | B.S.                 |
| Electrical Engineering | B.S.                 |
| Environmental Engineering| B.S.               |
| Materials Science and Engineering| B.S. |
| Mechanical Engineering | B.S.                 |
| Design and Manufacturing|                   |
| Energy and Environment |                     |
| General Mechanical Engineering|               |
| Mechanics of Materials and Structures|             |

¹Joint with the Anderson Graduate School of Management
A major is a coordinated group of upper-division courses (courses numbered 100–199) in a field of specialization. The major may be a group of upper-division courses within a single department or program, or a group of related courses from several departments or programs. Before enrolling in upper-division courses, students may be required to gain appropriate knowledge by completing specific prerequisite courses. With the assistance of a departmental advisor, students are expected to select lower-division courses which prepare them for the advanced studies they propose to follow.

Change of Major or Double Majors

A student in good standing may request transfer from one major to another by filing a Major Change Petition with the Office of Student Academic Affairs. Major Change criteria can be found at www.engr.ucr.edu/studentaffairs/policies/major_change.shtml.

A student in good standing may elect to take a second major within the college. The student must file a declaration of a second major with the Office of Student Affairs. A course used to satisfy the requirements for one major may be used to fulfill the requirements of a second major as well. However, of the required upper-division units, a minimum of 24 must be unique to each major, and both majors must be completed within the maximum unit cap of the primary Engineering major.

A student in good standing may elect to take a second major in another college. A declaration of such a second major must be signed by the deans of both colleges and filed by the student with the primary college. A student will meet requirements of both primary and secondary majors and the college requirements of the primary major, if they are both in the same baccalaureate class. If the two majors lead to different degree designations (B.S. and B.A.), that fact will be noted on the transcript, but only one diploma indicating both degree designations will be issued upon successful completion of such a double major program. Furthermore, if the double major is a mixed B.S./B.A., the college requirements of both majors must be met. A course used to satisfy the requirements for one major may be used to fulfill the requirements for a second major as well. However, of the required upper-division units, a minimum of 24 must be unique to each major, and both majors must be completed within the maximum unit cap of the primary Engineering major.

A student who has declared a double major may graduate in one major upon the completion of all requirements for that major but may not continue in the university for completion of the second major. For details, see www.engr.ucr.edu/studentaffairs/policies/double_mjrs.shtml.

Minors

The Bourns College of Engineering currently has a minor in Computer Science. Minors in the college shall consist of not fewer than 20 nor more than 28 units of organized upper-division courses. No more than 4 units of 190–199 courses may be used in fulfilling the upper-division unit requirement for a minor. Overlap may occur between the upper-division course requirements of the major and the minor only to the extent permitted by the department, programs, or interdisciplinary committee offering the minor, or the college of the minor. Courses used, or prerequisite to those used, in fulfilling the minor may be taken on an "S/NC" basis only on approval of the dean. The department, program, or interdisciplinary committee offering the minor is responsible for student and administrative issues pertaining to the minor. Students must file a declaration of a minor at least two quarters before graduation and must be in good academic standing at the time of filing. A minor requires the signature of the department chair or chair of the faculty committee which supervises the minor and the signature of the dean of the college. A GPA of at least 2.00 in upper-division courses in the field of the minor is a graduation requirement. When all other requirements for graduation have been met, the student will be graduated without the minor if the minimum GPA in the minor field has not been met.

University Honors Program

For a description of the University Honors Program, see Educational Opportunities section in the section Introducing UC Riverside. For a listing of requirements and courses, refer to University Honors Program in the Programs and Courses section of this catalog.

Freshman Discovery Seminars

Freshman Discovery Seminars are designed to introduce students to a wide variety of topics and current issues that UCR faculty explore. For engineering and computer science, each quarter’s offerings are listed at classes.ucr.edu under ENGR 092. Topics vary from quarter to quarter. The current quarter’s offerings may be found at discoveryseminars.ucr.edu.

The seminars have no prerequisites, and freshmen are given enrollment priority, although sophomores may enroll with instructor’s consent, if space is available.

Each seminar is limited to 20 students, to encourage discussion. Students may enroll in a seminar offered by any of the UCR colleges (ENGR 092, NASC 092, or HASS 092), regardless of their major. Each seminar carries 1 unit of academic credit, although units are not applied toward major requirements. The seminars are graded on a Satisfactory/No Credit basis.

Admission to Majors

Admission of Freshmen

Prospective Bourns College of Engineering students must complete high school programs that meet UC requirements as described in the Undergraduate Admission section of this catalog. In addition, appropriate high school mathematics and science course work should include the following:

<table>
<thead>
<tr>
<th>Course Work</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra</td>
<td>2</td>
</tr>
<tr>
<td>Plane Geometry</td>
<td>1</td>
</tr>
<tr>
<td>Trigonometry (often contained in Precalculus or Algebra II, strongly suggested)</td>
<td>1/2</td>
</tr>
<tr>
<td>Chemistry or Physics, with laboratory (preferably both)</td>
<td>1</td>
</tr>
</tbody>
</table>

A supplemental screening process for majors in the Bourns College of Engineering places emphasis on the GPA earned in college preparatory course work, especially mathematics and science, and on aptitude test scores. Qualification for first-year calculus is also expected. UC-eligible students not qualifying for the preferred major are considered for admission to their alternate major.

Application should be made during the priority filing period (November 1–30).

Transfer Students

All transfer students must meet the UC requirements for admission as described in the Undergraduate Admission section of this catalog. The Bourns College of Engineering accepts completion of IGETC as satisfying the majority of the college’s breadth requirements for transfer students. Some additional breadth coursework may be required after enrollment at Bourns. For more information on BCDE breadth requirements, go to www.engr.ucr.edu/studentaffairs/policies/breadth.shtml.

However, prospective applicants are strongly encouraged to focus instead on preparatory course work for their desired major, such as mathematics, science, and other technical preparatory course work, rather than on IGETC completion. Strong technical preparation is essential for success in the admissions process, and subsequently, in all coursework at Bourns.

Students intending to transfer to engineering majors are expected to complete the equivalent of UCR course work required in the first two years of the programs and to apply for transfer starting with their junior year. Specific information on transfer requirements may be obtained from the Office of Student Academic Affairs, (951) 827-ENGR (3647) or at www.engr.ucr.edu/studentaffairs/transfers.shtml.

Financial Assistance

The Bourns College of Engineering awards several scholarships to its students each year from funds provided by corporate and private sponsors. Other scholarships are available. Further information may be obtained by calling the Office of Student Academic Affairs, (951) 827-ENGR (3647).
Special Facilities See Research Opportunities in the section About UC Riverside in this catalog for a detailed description of the following centers:
- Center for Environmental Research and Technology
- Center for Nanoscale Science and Engineering
- Center for Research in Intelligent Systems (including the Visualization requirements, college requirements, and major requirements.)

Degree Requirements
Students in the Bourns College of Engineering must meet three levels of requirements for the Bachelor of Science degree: general university requirements, college requirements, and major requirements.

General University Requirements
General university requirements are listed at the beginning of the Undergraduate Studies section. For other UCR regulations including repetition of courses, concurrent enrollment, scholarship regulations, and incomplete (I) grades, see the Policies and Regulations section of this catalog.

In addition to the above general university requirements, the Bourns College of Engineering has the following unit requirement.

Unit Requirement
Most of the majors in this college require more than the nominal university requirement of 180 units for graduation. No more than 6 units of physical education activity may be counted toward this requirement. However, after having credit for 216 units or 120 percent of the units required for the major, a student is not permitted to continue except by approval of the dean when specific academic or professional reasons are involved.

College Breadth Requirements

<table>
<thead>
<tr>
<th>Bourns College of Engineering</th>
<th>Breadth Requirement Unit Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the B.S.</td>
<td></td>
</tr>
<tr>
<td>English Composition</td>
<td>Varies</td>
</tr>
<tr>
<td>Humanities</td>
<td>12</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Ethnicity (4 units)*</td>
<td>–</td>
</tr>
<tr>
<td>Natural Sciences and Mathem</td>
<td>20</td>
</tr>
<tr>
<td>Total Units</td>
<td>44 plus English Composition</td>
</tr>
</tbody>
</table>

*The 4-unit ethnicity requirement can be applied to the Humanities or Social Science requirement, depending on content.

The Executive Committee of Bourns College of Engineering, in consultation with the faculty, is responsible for determining which courses may be used to satisfy these requirements. Detailed requirements are available in the Office of Student Academic Affairs or at www.engr.ucr.edu/studentaffairs/policies/breadth.shtml.

Internships and independent study courses may not be used to satisfy breadth requirements.

For the following requirements, a course is defined as a block of instruction that carries credit of 4 or more units.

To provide depth in satisfying breadth in the humanities and social sciences, courses must meet the following criteria:

1. At least two of the humanities and/or social science courses must be upper division.
2. At least two courses must be from the same subject area (for example, two courses in History), with at least one of the two being an upper-division course.

English Composition
Students must demonstrate adequate proficiency in English Composition by completing a one-year sequence of college-level instruction in English Composition with no grade lower than “C.” UCR’s sequence is ENGL 001A, ENGL 001B, and either ENGL 001C or ENGL 01SC. Transfer students who have credit for one semester of English Composition from another institution must take two additional quarters (i.e., ENGL 001B and either ENGL 001C or ENGL 01SC). Students have the option of using a score of 3 on the College Board Advanced Placement Test in English to satisfy ENGL 001A; they must complete ENGL 001B and either ENGL 001C or ENGL 01SC. Students with a score of 4 or 5 on the College Board Advanced Placement Test in English have satisfied ENGL 001A and ENGL 001B; they must complete ENGL 001C or ENGL 01SC.

Students should enroll in an English composition course each quarter they are registered at UCR until the sequence of preliminary Entry Level Writing courses, if needed, and ENGL 001A, ENGL 001B, and ENGL 001C or ENGL 01SC is completed with a satisfactory GPA. A student may not receive baccalaureate credit for any work in English Composition taken prior to completing the Entry Level Writing requirement.

Humanities: 12 units
Courses used to fulfill the Humanities requirements must be selected from an approved list available in the Office of Student Academic Affairs.

1. One course in World History
2. One course in one of the areas of Fine Arts, Literature, Philosophy, or Religious Studies
3. One additional course chosen from:
   a) History, the Fine Arts, Literature, Philosophy, Religious Studies
   b) A foreign language at level 3 or above
   c) Humanities courses offered by Ethnic Studies, Creative Writing (courses in journalism), Humanities and Social Sciences, Latin American Studies, Linguistics, or Women’s Studies

No course used to satisfy the English Composition requirement can be applied toward Humanities credit. A list of approved courses is available in the Office of Student Academic Affairs.

Social Sciences: 12 units
Courses used to fulfill the Social Sciences requirements must be selected from an approved list available in the Office of Student Academic Affairs.

1. One course from Economics or Political Science
2. One course from Anthropology, Psychology, or Sociology
3. One additional social science course offered by Ethnic Studies, Geography (cultural geography courses), Human Development, or Women’s Studies, or one of the disciplines in 1. or 2. above.

To provide depth in satisfying breadth in the humanities and social sciences, at least two of the courses must be upper division, and at least two courses, one of them upper division, must be from the same subject area. The list of approved courses is available in the Office of Student Academic Affairs.

Ethnicity: 4 units
Courses used to fulfill the Ethnic Studies requirement must be selected from an approved list available in the Office of Student Academic Affairs.

One course dealing with general concepts and issues in the study of race and ethnicity in California and the United States. Courses that satisfy this requirement must concentrate on one or more of four principal minority groups (African American, Asian American, Chicano/Latino, and Native American). These courses must be comparative in nature, analyzing the minority group experience within the present and historical context of other racial and ethnic groups, such as European-American minorities. The courses are to be offered by or cross-listed with the Department of Ethnic Studies. The list of approved courses is available in the Office of Student Academic Affairs.
Natural Sciences and Mathematics: 20 units
Courses used to fulfill the Natural Sciences and Mathematics requirements must be selected from an approved list available in the college Student Academic Affairs office.
1. One course in Biological Sciences
2. One course in Physical Sciences. No course in cultural geography may be used.
3. One course in Mathematics or Computer Science or Statistics
4. Two additional courses in the Biological or Physical Sciences
Check with the Office of Student Academic Affairs for the courses that fulfill the biological sciences, physical sciences, and additional sciences. In some cases, these are satisfied by requirements of the major. The mathematics/computer science/statistics requirement is always satisfied by a major requirement.

Major Requirements
Detailed requirements for each major are found under the department listings in the Programs and Courses section of this catalog, and are available from the Office of Student Academic Affairs, (951) 827-ENGR (3647). A GPA of at least 2.00 (“C”) in upper-division courses taken in the major field is required for graduation. Not more than 9 units of courses in the 190-199 series may be counted in fulfilling the upper-division units needed for the major.

College Policies and Procedures
For detailed information on UCR policies and regulations see the Policies and Regulations section of this catalog.

College Regulations
Detailed information and specifics with regard to the college regulations governing undergraduate student status as approved by the faculty and contained in the Manual of the Riverside Division of the Academic Senate can be obtained from the Dean’s Office.

Student Responsibility
Students are responsible for meeting deadline dates regarding enrollment, add/drop, change of grading basis, credit by examination, withdrawal, declaration of candidacy, and other procedures. The dates are at classes.ucr.edu and must be observed. Students are responsible for ensuring that they meet all requirements for graduation and that they attend the undergraduate faculty advisor’s annual forum. Students are also responsible for obtaining their grades, selecting an appropriate collection of courses, and confirming their enrollment by relevant deadlines. Academic advising can be obtained in the Office of Student Academic Affairs.

Faculty Advisors
All Bourns College of Engineering students are advised on a regular basis. In addition, each department designates a faculty undergraduate advisor who is the primary contact in the student’s areas of academic interest. Faculty advisors assist students in their undergraduate careers, as appropriate, and are also mentors in the student’s areas of interest.

Course Enrollment
Students should plan their program of study carefully, in consultation with an academic advisor. Class schedules of fewer than 12 units must have the approval of the associate dean of the college.
Students who have not met the Entry Level Writing Requirement must enroll in an Entry Level Writing or qualifier course, as determined by their placement, during their first quarter of residency.
Students must attend class meetings. Students who do not attend in accordance with any published requirement listed at classes.ucr.edu or on a course syllabus may be dropped from the course.
Students may add or drop a course via GROWL through the second week of instruction. Beginning the third week of instruction, students must file an Enrollment Adjustment Form to make changes and obtain required approvals. During the third week of classes, students may, with the consent of the instructor and the approval of their academic advisor, add a course. Students may drop a course until the end of the sixth week of instruction, but courses dropped after the second week of instruction require an academic advisor’s signature and result in a “W” (for withdrawal) noted on the transcript. Changes in enrollment after deadlines published at classes.ucr.edu require the approval of the associate dean of the college.
A student on probation may enroll for more than 13 quarter units only with the consent of the associate dean of the college.
With the approval of the associate dean, students may withdraw from the university at any time prior to the end of instruction.
Any changes in a student’s class schedule not covered by the above regulations must have the approval of the associate dean.

Enrollment on a Satisfactory/No Credit Basis
A student in good standing may enroll and receive credit for courses graded “S.” However, the “S/NC” grading system cannot be used for any course that is used to fulfill major or breadth requirements, except for any required course which is restricted to “S/NC” grading and up to 8 units of courses in the humanities and social sciences. Exceptions to this policy may be granted, upon petition, by the student’s advisor and the Executive Committee.
Students may change their grading basis in a course from letter grading to “S/NC” (or vice versa) up to the end of the eighth week of instruction.
Regulations governing the “S/NC” option are described under Credit and Grades in the Policies and Regulations section of this catalog.

Credit by Examination
A student may petition for the privilege of examination for degree credit without formal enrollment in a particular course, but must be in residence and not on academic probation. Arrangements for examination for degree credit must be made with the student’s advisor. Approvals of the advisor, the dean of the college, and the instructor who is agreeing to give the examination are necessary before the examination may be given. The results of all examinations for degree credit are entered on the student’s record as if the student had actually taken the courses of instruction.

Expected Progress for Undergraduate Students
At the close of each quarter, the courses, units, grades, and grade points earned are added to the student’s cumulative university record. This record summarizes progress toward a degree. Lack of adequate progress may jeopardize continued registration. Students can access their advisory degree check at growl.ucr.edu.

Declaration of Candidacy
Applications for graduation are available in the Office of Student Academic Affairs and must be filed by the deadline established for the quarter in which graduation is intended. The deadline for filing applications for graduation is listed at classes.ucr.edu each quarter. Applications are not accepted after the deadline established for the quarter. If for any reason a student does not meet the requirements for graduation after announcing candidacy, or if a student fails to meet the deadline for filing, an application must be filed for a subsequent quarter.

California Teach Science/Mathematics Initiative (CaTEACH-SMI)
California Teach-Science Mathematics Initiative (CaTEACH-SMI) has a goal of addressing the critical need of highly qualified K-12 science and mathematics teachers in California. With an economy increasingly reliant on science, technology, engineering, and mathematics (STEM) and the anticipated large scale retirement of qualified teachers, this is an essential time to explore and prepare for a career in teaching science or mathematics.
CaTEACH-SMI at UCR offers undergraduate students paid/unpaid opportunities to explore STEM teaching as a career option. Through CaTEACH-SMI, students receive advising and mentoring to prepare for entrance into an intern teaching credential program while diligently coordinating with academic advisors to ensure completion of STEM degree requirements. The CaTEACH-SMI Resource Center provides future STEM teachers with material and financial resources to promote planning and professional development towards a science/mathematics education career.
For more information about the CaTEACH-SMI program, please visit http://smi.ucr.edu or at the Resource Center at 1104 Pierce Hall.
Graduate School of Education

Student Affairs:
1124 Sproul Hall
(951) 827-5225; fax (951) 827-3942
education.ucr.edu

Degrees and Credentials
The Graduate School of Education offers credential programs for students preparing for careers in elementary, middle school, and high school teaching; in classrooms for individuals with mild/moderate or moderate/severe disabilities; and administrative service in public schools. The programs prepare students to teach English learners and students from diverse backgrounds. The School offers a Master of Education (M.Ed.) degree with a General Education Teaching Emphasis. This is for qualified students earning a Multiple Subject or Single Subject credential and is generally completed in one academic year and a summer term.

In addition, M.Ed. emphases in Autism, Higher Education Administration and Policy, Leadership, Reading, and Special Education are also offered. A combined M.Ed. and credential in the areas of Leadership, Reading, and Special Education are also available to qualified candidates. The school also offers M.A. and Ph.D. programs in Curriculum and Instruction, Institutional Leadership and Policy Studies, Educational Psychology, Special Education, and School Psychology. The MA in School Psychology may be awarded only to students matriculating in the School of Education Ph.D programs. The Ph.D. in School Psychology is offered in combination with a Pupil Personnel Services Credential for School Psychology.

Graduate Study
Curricula are offered through the Graduate School of Education for the M.A., M.Ed. and Ph.D. degrees. These programs require broad training in education and in a cognate field of study. Further information can be found under Education in the Programs and Courses section of this catalog or visit education.ucr.edu. The Graduate Degree Program Office offers monthly information sessions. Check the Web site for specific dates.

Teaching Credential Programs
Students planning to become teachers can pursue the following teaching credential programs in GSOE:

1. Multiple Subject (elementary school), in addition, students may add:
   - Bilingual Crosscultural Language Academic Development (BCLAD) emphasis in Spanish. Requires passage of the Spanish Proficiency Test and coursework in Latino American literature, Latin American culture and history, and bilingual/bicultural education. Students must also complete EDUC 177B.
   - Dual Credential: Multiple Subject and Education Specialist (see specialization areas listed below).

2. Single Subject (specified subject(s) at the middle school and high school level).

3. Education Specialist (special education) students select one of the following specializations:
   - Mild/Moderate Disabilities: authorizes service for mild to moderate mental retardation; attention deficit and attention deficit hyperactivity disorders; serious emotional disturbance; and includes specific learning disabilities.
   - Moderate/Severe Disabilities: authorizes service for moderate to severe mental retardation; multiple disabilities; serious emotional disturbance; deaf-blindness; and includes autism.

Admission
Admission to Teacher Education Programs is required in order to complete the professional and graduate level courses. The admission requirements vary depending on the credential specialization but at minimum students need a 3.0 GPA (calculated on the last two years of undergraduate studies), pre-program fieldwork, linguistics, passage of the basic skills requirement, and subject matter competency. Students who want to be considered for an intern program or the M.Ed. General Education Teaching Emphasis have additional requirements. More information is available at www.education.ucr.edu. Students who are considering a career in teaching should attend an Information Session no later than their junior year. The dates and times for these sessions are available on the website and in GSOE Student Services, 1124 Sproul Hall.

California Teach-Science/Mathematics Initiative (CaTEACH-SMI)
California Teach-Science Mathematics Initiative (CaTEACH-SMI) has a goal of addressing the critical need of highly qualified K-12 science and mathematics teachers in California. With an economy increasingly reliant on science, technology, engineering, and mathematics (STEM) and the anticipated large scale retirement of qualified teachers, this is an essential time to explore and prepare for a career in teaching science or mathematics.

CaTEACH-SMI at UCR offers undergraduate students paid/unpaid opportunities to explore STEM teaching as a career option. Through CaTEACH-SMI, students receive advising and mentoring to prepare for entrance into an intern teaching credential program while diligently coordinating with academic advisors to ensure completion of STEM degree requirements. The CaTEACH-SMI Resource Center provides future STEM teachers with material and financial resources to promote planning and professional development towards a science/mathematics education career.

For more information about the CaTEACH-SMI program, please visit http://smi.ucr.edu or at the Resource Center at 1104 Pierce Hall.

Administrative Services Credential Programs
The Graduate School of Education is authorized by the Commission on Teacher Credentialing to offer a program qualifying students for the Preliminary and Professional Administrative Services credentials. Programs leading to these credentials are generally coordinated with an advanced degree in educational leadership and policy studies.
The A. Gary Anderson Graduate School of Management

Student Affairs:
A. Gary Anderson Hall
(951) 827-4551; fax (951) 827-3970
agsm.ucr.edu

Mission Statement
The A. Gary Anderson Graduate School of Management (AGSM) is dedicated to the pursuit of excellence in substantive scholarly research enhancing the world’s base of knowledge about organizations, their environments, and their management, and to the transmission of this knowledge through quality educational programs to students, alumni, business managers, and the public. The AGSM is accredited by AACSB International - The Association to Advance Collegiate Schools of Business.

Master of Business Administration Program
The AGSM offers a professional graduate program leading to the Master of Business Administration (M.B.A.) degree. The program is offered both on the UCR campus and at the Heckmann International Center for Entrepreneurial Management at the UCR Palm Desert Graduate Center.

The M.B.A. curriculum on the Riverside campus balances the art and science of management, with a particular emphasis on managing through information, and recognizes the global context of management. The curriculum also emphasizes growing strengths in marketing, accounting, and finance. The first-year core courses of the two-year M.B.A. program provide a strong integrated foundation in the common body of knowledge for management. Thereafter, students take 28 to 36 units of electives offered in various fields, and complete a required internship, capstone course, and a thesis or case analysis. In addition to regularly scheduled course work during the day, course work is offered in the evening to permit career professionals to pursue an M.B.A. degree on a part-time basis.

The M.B.A. program at the Heckmann Center is a cohort program focused on entrepreneurial management and is an academic partnership among world-class academic faculty, successful entrepreneurs and executives, and industry partners. Students complete graduate courses taught by AGSM faculty and also are exposed to, and mentored by, major executives, and entrepreneurs who have built and managed significant successful businesses, large and small.

The M.B.A. program is open to eligible students from all undergraduate majors. Quantitative methods is a prerequisite to the program. Qualified students who have not taken this prerequisite course may be admitted but must meet this requirement during their first two quarters in residence.

Admission
Admission requirements for the program are similar to requirements for the Graduate Division. In addition to transcripts, applicants should submit test scores from the Graduate Management Admissions Test (GMAT) and three letters of recommendation from persons knowledgeable about the applicant’s academic ability and potential for success in the program.

Undergraduate Program in Business Administration
The AGSM and the College of Humanities, Arts, and Social Sciences jointly offer an upper-division major in Business Administration intended for students who seek a professional education in the functional fields of private sector management. Students who elect the premajor receive advising in the College of Humanities, Arts, and Social Sciences during their freshman and sophomore years; after admission to the major, students are advised by the AGSM. In addition to administering the program, the AGSM also teaches courses in the functional areas of management such as finance, accounting, human resources management, marketing, and management information systems. The B.S. degree in Business Administration is awarded by the College of Humanities, Arts, and Social Sciences.

Certificate in Management
This certificate is awarded jointly by the AGSM and UCR Extension. Satisfactory completion (with a grade of “B” or better) of six courses (plus prerequisite courses, if required) is necessary to earn the certificate. Certificate students complete five required core courses in Management and select one elective by arrangement with the AGSM.

Classes are taught by regular UCR faculty members and are scheduled on the UCR campus both during the day and in the evenings. Permission of the course instructor and the graduate advisor of the AGSM is required before final registration. Students may use the enrollment form inside the back cover of the Extension catalog to mail in their enrollment, or they may enroll in person at the Extension Office. For further information, write to the Coordinator of Certificate Programs, UCR Extension, Riverside, CA 92521-0112, or phone (951) 827-4112.

Executive Education
In addition to its M.B.A. program, the AGSM offers management training programs for executives, managers, administrators, and other professionals in the private and public sectors. These programs seek to further the professional development of people in management by exposing them to the most recent trends, ideas, and techniques in the field. Many of these programs do not have formal educational prerequisites, since the AGSM is more interested in a candidate’s experience record and potential to benefit from the program. These programs are offered as certificate programs, and workshops of shorter duration. Contact AGSM for further information.

The A. Gary Anderson Hall, one of the first buildings on campus.