

# Liberal Studies

In the College of Education

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**<http://libst.sdsu.edu>**

## Faculty

Faculty assigned to teach liberal studies courses are drawn from the colleges at San Diego State University.

*Emeritus:* Roeder, P.

*Coordinator:* Bendall

## Offered by the School of Teacher Education

Major in liberal studies with the B.A. degree in applied arts and sciences.

- Emphasis in education-generalist.
- Emphasis in elementary education.
- Emphasis in mathematics.
- Emphasis in science.

## The Major

The liberal studies major is designed for students who intend to teach at the elementary or middle school levels. Individuals learn to think critically, analyze evidence thoughtfully, and write clearly and effectively. Graduates develop a rich understanding of the major subject areas, including why and how practitioners create new knowledge. They learn to identify and understand the developmental stages of children and to observe, interview, and tutor children effectively in classroom settings.

Many of the lower and upper division core courses are specifically designed for future teachers, including children's literature, linguistics, history, mathematics, science, visual and performing arts, physical education of children, and child development. The content covered in these courses closely matches the content that teachers will ultimately have to teach in the schools as well as the content assessed by the California Subject Examination for Teachers Multiple Subject (CSET-MS) examination.

Throughout the first three years, students work on critical thinking, research, and writing skills. During their second or third semester, they take Education 200, Teaching as a Profession. In this course, they complete 30 hours of fieldwork during which they critically assess issues related to teaching in culturally and linguistically diverse school settings, learn about career paths, and evaluate their occupational fitness for the teaching profession. During their junior year, students take Liberal Studies 300, Introduction to Liberal Studies, where they complete an additional 30 hours of fieldwork. They focus both on the nature of the disciplines—goals, processes, and evaluation—as well as how the knowledge being learned will ultimately be used in the classroom. During their senior year, students complete Liberal Studies 498, Assessment in Liberal Studies. This course supports students as they complete the liberal studies communication, critical thinking, research, and writing assessments; and the application process for their credential program. These interdisciplinary courses plus the core subject matter courses provide a strong foundation for students' future careers.

Students combine the above core coursework with a focus and, in some cases, an additional option in order to pursue specific interests and career goals as follows:

### Emphasis in Education-Generalist

Preparation for teaching in elementary school.

Open only to transfer students who have completed the Transfer Model Curriculum.

Focus in Literacy, Mathematics, or Science; no option.

### Emphasis in Elementary Education

Preparation for teaching regular education, special education, or bilingual education in elementary school or English in middle school.

Focus in Literacy, Mathematics, or Science plus options in English as a second language, special education, bilingual education, or performing arts.

### Emphasis in Mathematics

Preparation for teaching regular education in elementary school and/or mathematics in middle school.

Focus in Mathematics plus option in Mathematics.

### Emphasis in Science

Preparation for teaching regular education in elementary school and/or science in middle school.

Focus in Science plus option in Science.

**Emphasis in Education-Generalist.** This emphasis is available only for transfer students who complete the California Community College Associate in Arts in Elementary Teacher Education (AA-T) degree and complete the Transfer Model Curriculum (TMC) for Liberal Studies/Integrated Teacher Education. Students choose a literacy, mathematics, or science focus; no option is required.

Students who choose the literacy focus in this emphasis complete the 32 units and specific coursework required to earn a Middle School Subject Matter Authorization in English, provided they earn a grade of C (2.0) or better in each course. When coupled with a multiple subject credential, this authorization allows individuals to teach elementary school or English in middle school if they so desire.

Students intending to transfer to liberal studies from local community colleges are strongly encouraged to use electives to complete courses equivalent to Exercise and Nutritional Sciences 241A, 241B; Mathematics 211; Mathematics Education 212; and Music 102, so that they will have elective units available if they wish to pursue a career option that requires additional coursework or prerequisites. Transfer students should not take focus or option courses prior to matriculating at San Diego State University.

**Emphasis in Elementary Education.** This emphasis is designed primarily for students who wish to teach at the elementary school level or pursue a career that requires an interdisciplinary liberal arts degree. Students complete both a focus and an option. The 18-21 unit focus provides an opportunity for students to explore the habits of mind and methods used in a chosen subject area as they develop both their depth and breadth of knowledge and experience. Three foci are available: literacy, mathematics, and science. The six to seven unit option helps students (a) earn the Basic Certificate in Teaching English as a Second or Foreign Language (when paired with a literacy), (b) begin preparation for the SDSU bilingual or special education credential programs, or (c) further explore the performing arts. This emphasis provides the greatest flexibility in meeting specific career goals or pursuing a variety of interests.

Students who choose the literacy focus develop depth in linguistics, literature, and theatre. The focus is designed so that they also complete the 32 units and specific coursework required to earn a Middle School Subject Matter Authorization in English, provided they earn a grade of C (2.0) or better in each course. When coupled with a multiple subject credential, this authorization allows individuals to teach English in middle school if they so desire.

Students who choose the mathematics or science focus learn to think like mathematicians or scientists as they build breadth and depth in their subject area. Once they have completed some of the coursework in their focus, they need to choose whether to take additional math or science courses or to complete one of the options described above. If they choose to take additional mathematics or science courses, they can qualify to teach middle school as described below under the mathematics or science emphases.

**Emphasis in Mathematics.** The demand for mathematics teachers continues to be high. Students complete the focus in mathematics described above plus a nine unit option in mathematics, which provide the 32 units and specific coursework required to earn a Middle School Subject Matter Authorization in mathematics, provided they earn a grade of C (2.0) or better in each course. When coupled with a multiple subject credential, this authorization allows individuals to teach mathematics in middle school if they so desire.

If students wish to further enhance their employability, they may attempt to pass the two CSET examinations—110 on algebra and 111 on geometry—required for a Foundational Level Mathematics certification. Graduates who pass these tests may choose to earn a multiple subject credential and add a single subject authorization by taking the extra, single subject mathematics methods course, Teacher Education 914. Those whose sole goal is to teach middle school, however, may choose to do the regular single subject credential program, which gives them the advantage of doing their student teaching in a middle school or high school class. A single subject credential in Foundational

Level Mathematics qualifies individuals to teach general mathematics, algebra, geometry, probability and statistics, and consumer mathematics at the middle school or high school level.

**Emphasis in Science.** The demand for middle school science teachers also continues to be high. Students complete the focus in science described above plus a seven to nine unit option in science, which provide the 32 units and specific coursework required to earn a Middle School Subject Matter Authorization in science provided they earn a grade of C (2.0) or better in each course. When coupled with a multiple subject credential, this authorization allows individuals to teach science in middle school if they so desire.

With proper selection of courses (Biology 101, 101L; Chemistry 200; and Physics 180A, 182A) and completion of a portfolio, this emphasis also leads to a Foundational Level General Science certification. This program was approved by the Commission on Teacher Credentialing in October 2011. Thus, students satisfy subject matter competency; they do not have to pass the CSET science tests—118 on earth science and physics and 119 on life science and chemistry. For maximum employability, graduates may choose to earn a multiple subject credential and add a single subject authorization by taking the extra single subject science methods course, Teacher Education 914. Graduates whose sole goal is to teach middle school, however, may choose to do the regular single subject credential program, which gives them the advantage of doing their student teaching in a sixth, seventh, or eighth grade classroom.

### Advising

Advising is extremely important because students must make numerous decisions that include choosing their emphasis, focus, and option; selecting appropriate courses; and preparing for the senior-level assessments. See the website for current information, advising procedures, and e-mail questions. Information about SDSU credential programs and financial aid opportunities is available at the College of Education, Office of Student Services, EBA-259, 619-594-6320, and in the *Graduate Bulletin*.

### Retention Policy

The liberal studies program expects that all majors will make reasonable academic progress towards the degree. Liberal studies premajors who have completed major preparatory courses, earned 60 units, but have less than a 2.7 may be removed from the premajor and placed in undeclared.

### Impacted Program

The liberal studies major is an impacted program. To be admitted to the liberal studies major with an emphasis in elementary education, mathematics, or science, students must meet the following criteria:

- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.70 or better;
- Complete all courses listed in Preparation for the Major sections for the liberal studies major;
- Complete with a grade of C (2.0) or better: a certified Area A1 Oral Communication course; a certified Area A3 Intermediate Composition and Critical Thinking course; Exercise and Nutritional Sciences 241A and 241B; and Mathematics 210 and 211. These courses cannot be taken for credit/no credit (Cr/NC);
- Earn a passing score on the SDSU Liberal Studies Mathematics Proficiency Assessment;
- Declare the liberal studies major by following the procedures explained on the website.

To complete the major, students must fulfill the degree requirements for the major and emphasis described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

To be admitted to the liberal studies major with an emphasis in Education-Generalist, students must complete the Transfer Model Curriculum (TMC) for Liberal Studies and satisfy criteria "a" and "b."

### Major Academic Plans (MAPs)

Visit <http://www.sdsu.edu/mymap> for the recommended courses needed to fulfill your major requirements. The MAPs website was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Liberal Studies Major

With the B.A. Degree in Applied Arts and Sciences

(Major Code: 49012)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

**Completion of the liberal studies major fulfills General Education requirements.**

A minor is not required for this major.

**International Experience Requirement.** In recognition of the increasing globalization in all sectors of world society, the Liberal Studies International Experience has been established. Students participate in designated, preapproved study abroad experiences in a different country. Options include a variety of short term and semester formats designed to meet the needs of different students, including those with family and work responsibilities. The purpose of the experience is to increase student awareness of cross-cultural and global issues – issues that are critical to their development as future teachers and citizens in a complex, rapidly changing world. All liberal studies majors are required to participate in an international experience approved by the adviser.

To meet the international experience requirement, majors must complete one of the following:

- A CSU Study Abroad Program;
- An SDSU Exchange Program;
- An SDSU Study Abroad Program;
- An SDSU Study Travel Program;

**OR**

- One course selected from:
  - Liberal Studies 350 or 351;
  - Asian Studies 490;
  - Education 450;
  - General Studies 450;
  - Health and Human Services 350;
  - International Security and Conflict Resolution 450;
  - Latin American Studies 450;
  - Political Science 450;
  - Science 350.

### Lower Division Core (46-50 units)

Students in the Elementary Education, Mathematics, and Science emphases must complete the following General Education and American Institutions requirements and Education 200.

#### I. Communication and Critical Thinking:<sup>1</sup> 9 units.

You may not use credit/no credit (Cr/NC) grades in this section.

- Oral Communication (3 units). A grade of C (2.0) or better is required.
- Composition (3 units). A grade of C- (1.7) or better is required.
- Intermediate Composition and Critical Thinking (3 units). A grade of C (2.0) or better is required.

#### II. Foundations of Learning: 28 minimum units.

- Natural Sciences and Quantitative Reasoning (10 units)
  - Biology 100 (3 units).
  - Geology 104 (3 units).
  - Biology 100L (1 unit).
  - Mathematics 210 (3 units). Complete with a grade of C (2.0) or better [cannot be taken for credit/no credit (Cr/NC)].
- Social and Behavioral Sciences (6 minimum units)
  - Geography 106 (3 units).
  - Three to six units selected from Child and Family Development 170 [or Teacher Education 170] (3 units); or Psychology 101 and Psychology 230 (6 units).<sup>2</sup>
- Humanities (12-13 units)
  - Literature: Three units selected from Comparative Literature 270A, 270B; English 220.
  - Visual and Performing Arts: Three units selected from Art 157, 259; Theatre 120.
  - History: History 100 (3 units).
  - Philosophy, Religious Studies, or Foreign Language<sup>3</sup>. (3-4 units)

<sup>1</sup> See the General Education requirements in Communication and Critical Thinking.

<sup>2</sup> Upper division transfer students may substitute a transfer course equivalent to SDSU course Child and Family Development 270 in lieu of Teacher Education 170 [or Child and Family Development 170].

<sup>3</sup> See the General Education requirement in Foundations of Learning IIC. Three to four units selected from 4. Philosophy or Religious Studies or 5. Foreign Language.

III. American Institutions: 6 units.

1. Three units selected from Africana Studies 170A, American Indian Studies 140, Chicana and Chicano Studies 141A, History 109.
2. Three units selected from Africana Studies 170B, American Indian Studies 141, Chicana and Chicano Studies 141B, History 110, Political Science 102.

IV. Liberal Studies: 3 units.  
Education 200 (3 units).

**Emphasis in Education-Generalist  
(SIMS Code: 331921)**

**Open only to AA-T/TMC for Elementary Teacher Education**

**Preparation for the Major.** The emphasis in education-generalist is open only to students who have completed the California Community College Associate in Arts in Elementary Teacher Education (AA-T) degree and completed the Transfer Model Curriculum (TMC) for liberal studies/integrated teacher education.<sup>1</sup> Additional preparation for the major (9.5 units): Exercise and Nutritional Sciences 241A, 241B (complete with a grade of C (2.0) or better); Mathematics 211 (complete with a grade of C (2.0) or better); Mathematics Education 212; Music 102. Exercise and Nutritional Sciences 241A, 241B and Mathematics 211 may not be taken for credit/no credit (Cr/NC). (9.5 units)

**Graduation Writing Assessment Requirement.** Students must have fulfilled the Writing Placement Assessment with a score of 8 or above or with a grade of C (2.0) or better in Rhetoric and Writing Studies 280 or 281 [or Linguistics 281] before taking English 306W and earn a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

**International Experience.** All liberal studies majors are required to complete the international experience requirement.

**Major including required focus.** No Option is required. (40.5-50 units)

**Upper Division Core (34.5-35 units):**

*Liberal Studies:* Liberal Studies 300, 498 (0.5 - 1 units).

*Mathematics and Science:* Mathematics 312<sup>2</sup>, 313<sup>2</sup>; Physics 412.

*Social and Behavioral Sciences:* Linguistics 420.

*Humanities:* English 306A, 306W; History 411, 413; and six units selected from Art 387, Education 451, Music 343.

**Focus (14-15 units).** All students complete a focus in literacy, mathematics, or science. A minor or second major may not be substituted for a focus.

*LITERACY (15 units):* Six units selected from Linguistics 253<sup>3</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>], Linguistics 430<sup>4</sup>, 452<sup>4</sup>; three units selected from Theatre 310, 315; three units selected from Africana Studies 365A [or English 365A], 365B [or English 365B], American Indian Studies 430, Chicana and Chicano Studies 335 [or English 335], Comparative Literature 470, Women's Studies 352; three units selected from English 501, 502, or 503.

*MATHEMATICS (15 units):*

*Breadth Course:* Linguistics 253<sup>3</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>].

*Mathematics Courses:* Mathematics 141, 302, 413; three units selected from Statistics 119 or 250.

*SCIENCE (14-15 units):*

*Breadth Course:* Linguistics 253<sup>3</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>].

*Science Courses:* Geological Sciences 412 (4 units), Teacher Education 211B (1 unit); three units selected from Biology 324 or 327; three to four units selected from Chemistry 100 (4 units) or Geological Sciences 303.

<sup>1</sup> The statewide TMC in liberal studies includes courses equivalent to the Lower Division Core completed by students in the Elementary Education, Mathematics, and Science emphases with the following distinctions: a) courses equivalent to Music 151 and Theatre 100 are additional choices for the I.C.2. Visual and Performing Arts requirement and b) a fourth General Education Humanities philosophy, religious studies, or foreign language course is not required. The foci for the Education-Generalist emphasis does not include a breadth requirement for Chemistry 308 or Natural Science 100 because this requirement is part of the TMC.

<sup>2</sup> Students must pass the Liberal Studies Mathematics Proficiency Assessment prior to enrolling in Mathematics 312 and 313.

<sup>3</sup> Linguistics 253 [or Rhetoric and Writing Studies 253]. Discuss with adviser.

<sup>4</sup> Prerequisite: Linguistics 420 in the major.

**Emphasis in Elementary Education  
(SIMS Code: 331922)**

**Preparation for the Major.** Complete 46-50 units of lower division core plus Exercise and Nutritional Sciences 241A, 241B (with a grade of C (2.0) or better); Mathematics 211 (with a grade of C (2.0) or better); Mathematics Education 212; Music 102. Exercise and Nutritional Sciences 241A, 241B and Mathematics 211 may not be taken for credit/no credit (Cr/NC). (55.5-59.5 units)

**Graduation Writing Assessment Requirement.** Students must have fulfilled the Writing Placement Assessment with a score of 8 or above or with a grade of C (2.0) or better in Rhetoric and Writing Studies 280 or 281 [or Linguistics 281] before taking English 306W and earn a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

**International Experience.** All liberal studies majors are required to complete the international experience requirement.

**Major including required focus and option (44.5-60 units).** [NOTE: Plus additional lower division courses.]

**Upper Division Core (34.5-35 units):**

*Liberal Studies:* Liberal Studies 300, 498 (0.5-1 unit);

*Mathematics and Science:* Mathematics 312<sup>1</sup>, 313<sup>1</sup>; Physics 412;

*Social and Behavioral Sciences:* Linguistics 420;

*Humanities:* English 306A, 306W; History 411, 413; and six units selected from Art 387, Education 451<sup>2</sup>, Music 343.

**Focus (17-21 lower and upper division units).** All students complete a focus in literacy, mathematics, or science. A minor or second major may not be substituted for a focus.

*LITERACY (21 units).* [NOTE: Lower and upper division units].

*Breadth Courses:* Chemistry 308 [Imperial Valley only] or Natural Science 100; Linguistics 253<sup>3</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>].

*Linguistics, Theatre, and Literature Courses:* Linguistics 430<sup>4</sup>, 452<sup>4</sup>; three units selected from Theatre 310, 315; three units selected from Africana Studies 365A [or English 365A], 365B [or English 365B], American Indian Studies 430, Chicana and Chicano Studies 335 [or English 335], Comparative Literature 470, Women's Studies 352; three units selected from English 501, 502, or 503.

*MATHEMATICS (18 units):* [NOTE: Lower and upper division units].

*Breadth Courses:* Chemistry 308 [Imperial Valley only] or Natural Science 100; Linguistics 253<sup>3</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>].

*Mathematics Courses:* Mathematics 141, 302, 413; three units selected from Statistics 119 or 250.

*SCIENCE (17-19 units):* [NOTE: Lower and upper division units].

*Breadth Courses:* Chemistry 308 [Imperial Valley only] or Natural Science 100; Linguistics 253<sup>3</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>].

*Science Courses:* Geological Sciences 412 (4 units); Teacher Education 211B (1 unit); three to four units selected from Biology 101 and 101L (4 units)<sup>5</sup>, 324, 327; three to four units selected from Chemistry 100<sup>6</sup> (4 units) or Geological Sciences 303.

**Option (6-7 units).** All students complete an option. Some options lead to additional certifications; see the introduction section for details. To complete an additional 6+ units in mathematics or science, change to the Mathematics Emphasis or the Science Emphasis.

*Linguistics<sup>7</sup> (6 units):* Linguistics 550; Linguistics 555 or 556.

*Bilingual (7 units):* Dual Language and English Learner Education 415 (4 units); three units selected from Spanish 302, 381, or 382. Restricted to native or heritage speakers of Spanish or students with advanced placement credit in Spanish 202 and 212 or 405A and 405B.

*Special Education (7 units):* Special Education 500, 501, 502 (1 unit) (concurrent registration with Special Education 501).

*Performing Arts (6 units):* [Not available at the Imperial Valley Campus]: Prerequisites: Music 102; Theatre 310 or 315. Highly recommended prerequisite: one unit of a performing arts course, such as Music 110A, 110B, 175, 185, 212.

Theatre 510; three units selected from Africana Studies 385, Chicana and Chicano Studies 310 [or Latin American Studies 310], Music 345, 351.

<sup>1</sup> Students must pass the Liberal Studies Mathematics Proficiency Assessment prior to enrolling in Mathematics 312 and 313.

<sup>2</sup> May substitute Special Education 527 if seeking a special education credential.

<sup>3</sup> Verify with a liberal studies adviser.

<sup>4</sup> Prerequisite: Linguistics 420 in the major.

<sup>5</sup> Required for Foundational Level General Science certification. See science emphasis.

<sup>6</sup> Required for Introductory Subject Matter Authorization or Foundational Level General Science certification; therefore, required for the science emphasis.

<sup>7</sup> When combined with the literacy focus, students may earn the Basic Certificate in Teaching English as a Second or Foreign Language. See the linguistics section of the catalog.

### Emphasis in Mathematics (SIMS Code: 331923)

**Preparation for the Major.** Complete 46-50 units of lower division core and Exercise and Nutritional Sciences 241A, 241B (complete with a grade of C (2.0) or better); Mathematics 211 (complete with a grade of C (2.0) or better); Mathematics Education 212; Music 102. Exercise and Nutritional Sciences 241A, 241B and Mathematics 211 may not be taken for credit/no credit (Cr/NC). (55.5-59.5 units)

**Graduation Writing Assessment Requirement.** Students must have fulfilled the Writing Placement Assessment with a score of 8 or above or with a grade of C (2.0) or better in Rhetoric and Writing Studies 280 or 281 [or Linguistics 281] before taking English 306W and earn a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

**International Experience.** All liberal studies majors are required to complete the international experience requirement.

**Major including required focus and option (43.5-47 units).** [NOTE: Plus additional lower division units]

#### Upper Division Core (34.5-35 units):

*Liberal Studies:* Liberal Studies 300, 498 (0.5 - 1 unit).

*Mathematics and Science:* Mathematics 312<sup>1</sup>, 313<sup>1</sup>; Physics 412.

*Social and Behavioral Sciences:* Linguistics 420.

*Humanities:* English 306A, 306W; History 411, 413; and six units selected from Art 387, Education 451, Music 343.

*Mathematics Focus (18 units):* [NOTE: Lower and upper division units].

*Breadth Courses:* Chemistry 308 [Imperial Valley only] or Natural Science 100; Linguistics 253<sup>2</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>].

*Mathematics Courses:* Mathematics 141, 302, 413; three units selected from Statistics 119 or 250.

*Mathematics Option (9 units):* [NOTE: Lower and upper division units].

Mathematics 150 (4 units), 241 entitled "Mathematics Software Workshop: Geometers Sketchpad" (1 unit), 303; Teacher Education 211A (1 unit).

<sup>1</sup> Students must pass the Liberal Studies Mathematics Proficiency Assessment prior to enrolling in Mathematics 312 and 313.

<sup>2</sup> Verify with a liberal studies adviser.

### Emphasis in Science (SIMS Code: 331924)

**Preparation for the Major.** Complete 46-50 units of lower division core and Exercise and Nutritional Sciences 241A, 241B (complete with a grade of C (2.0) or better); Mathematics 211 (complete with a grade of C (2.0) or better); Mathematics Education 212; Music 102. Exercise and Nutritional Sciences 241A, 241B and Mathematics 211 may not be taken for credit/no credit (Cr/NC). (55.5-59.5 units)

**Graduation Writing Assessment Requirement.** Students must have fulfilled the Writing Placement Assessment with a score of 8 or above or with a grade of C (2.0) or better in Rhetoric and Writing Studies 280 or 281 [or Linguistics 281] before taking English 306W and earn a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

**International Experience.** All liberal studies majors are required to complete the international experience requirements.

**Major including required focus and option.** (38.5-46)<sup>1</sup>

**Upper Division Core (34.5-35 units):** [NOTE: Plus additional lower division units]

*Liberal Studies:* Liberal Studies 300, 498 (0.5 - 1 unit);

*Mathematics and Science:* Mathematics 312<sup>2</sup>, 313<sup>2</sup>; Physics 412;

*Social and Behavioral Sciences:* Linguistics 420;

*Humanities:* English 306A, 306W; History 411, 413; and six units selected from Art 387, Education 451, Music 343.

*Science Focus (18-19 units):* [NOTE: Lower and upper division units].

*Breadth Courses:* Chemistry 308 [Imperial Valley only] or Natural Science 100; Linguistics 253<sup>3</sup> [or Rhetoric and Writing Studies 253<sup>3</sup>].

*Science Courses:* Chemistry 100 (4 units); Geological Sciences 412 (4 units); Teacher Education 211B (1 unit); three to four units selected from Biology 101 and 101L (4 units)<sup>4</sup>, 324, 327.

*Science Option (7-9 units):* [NOTE: Lower division units].

Physics 180A (3 units); three to five units selected from Chemistry 130 (3 units), 200 (5 units)<sup>4</sup>; one additional lower or upper division unit of science selected from Physics 182A (1 unit)<sup>4</sup> or an alternative course selected with approval of adviser.

<sup>1</sup> Students who select Biology 101 and 101L - consult with a Liberal Studies adviser.

<sup>2</sup> Students must pass the Liberal Studies Mathematics Proficiency Assessment prior to enrolling in Mathematics 312 and 313.

<sup>3</sup> Verify with a liberal studies adviser.

<sup>4</sup> Required for Foundational Level General Science certification. A portfolio assessment is also required. See science adviser.

## Courses (LIB S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

### LOWER DIVISION COURSE

#### LIB S 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

### UPPER DIVISION COURSES (Intended for Undergraduates)

#### LIB S 300. Introduction to Liberal Studies (3)

Prerequisites: Education 200 and preparation for the major completed or to be completed concurrently.

Introduction to ideas, structures, and values within and among the various disciplines in this interdisciplinary major. Exploration of issues of diversity in contemporary society through directed field experience and required readings. Individual qualitative evaluation process required by major included.

#### LIB S 350. International Experience-Fieldwork (1) Cr/NC (Offered only in the College of Extended Studies)

Prerequisite: Concurrent registration in a three unit faculty led international experience lecture course.

International experience. Guided fieldwork in host country to include observations and tutoring suitable to content of concurrent three unit lecture course. Maximum credit two units.

#### LIB S 351. International Experience-Mexicali (1) Cr/NC (Offered only in the College of Extended Studies)

Prerequisite: Completion of the General Education requirement in Communication and Critical Thinking I.3., Intermediate Composition and Critical Thinking.

International experience in Mexicali, Mexico. History and culture of region, microcredit businesses to include bee keeping, border issues, education in Baja California. Service learning project.

#### LIB S 498. Assessment in Liberal Studies (0.5-1) Cr/NC

Prerequisites: Senior standing and Liberal Studies 300. Not open to premajors.

Senior assessment including reflections upon educational experiences in each subject area and role as future educator. Students will explore differences between subject areas and reflect upon learning and teaching.

#### LIB S 499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.