ACADEMIC PRACTICES

A code of academic policies, describing registration procedures, grades and evaluation, course load, and other practices and requirements, underlies the academic program at Reed. Key policies are described here.

REGISTRATION

Students register their official program of studies for the full year at the beginning of the fall semester. The filing of this material obligates the student to the payment of tuition for that semester. Students who fail to complete their registration by the close of the designated registration period will be charged a late registration fee of $15, which increases at the rate of $10 per week until completed. A student may not register later than the third week of the semester. Exceptions to this charge may be made by the Controller or Registrar only if the reasons for the delay are judged to be sufficiently beyond the control of the student to warrant such a waiver.

At the beginning of the spring semester, students confirm the spring program for which they registered in the fall and confirm financial arrangements. Failure to do this within the time limit will result in a late registration fee. Any change in program which seems advisable may be made without penalty at this time.

COURSE LOAD

Reed College conducts its courses either on a year basis, in which work will take two consecutive semesters to complete, or on a semester basis. In a year course, credit is not normally given for only one semester of work, although in special cases the instructor may authorize the granting of such credit.

Academic credits at Reed are defined in "Units." A full course for one semester carries one Reed unit of credit—the equivalent of four semester hours or six quarter hours.

Undergraduate work is reported in terms of course load. A full course is considered to be equivalent to approximately one-fourth of a student's load. For transcript purposes, a full course may be considered to have the value of four semester hours and is designated as one unit. A normal load for students is 3 3/4 to 4 3/4 academic units per semester (plus 3/4 unit of physical education for freshmen and sophomores). Students who register for less than 3 or more than 4 1/4 units in any semester must have such programs approved by the Administration Committee if they are freshmen or sophomores, or by the major division if they are juniors or seniors.

CLASS ATTENDANCE

Generally, no roll is taken in class, but the expectation is that, except for circumstances beyond the control of the student, all classes will be attended. Whether present or absent, students must complete the work of the course; professors use their own judgment as to the effect of absence on the student's record. A student who formally registers for a course, but who later decides not to continue with it, must withdraw from it by filing an official Change of Course petition to clear his or her record. Failure to do so may result in a grade of WU or F on the record.

COURSE CHANGES

After registration, students are responsible for the work of all the courses in which they have enrolled.

Any change in program made after the initial registration must be done by official Change of Course petition, approved by the faculty adviser and the instructors concerned, and filed in the Registrar's office. No course may be added to a student's program after the end of the third week of the semester.

Students may withdraw from a course at any time prior to the last two weeks of class. If the withdrawal is processed later than two weeks after the first grade review for that course, the student's official record will show the registration for the course, the date of withdrawal, and a grade of W (Withdrawal).

CREDIT – NO CREDIT

During their junior or senior year of taking as part of their regular two units of work on a credit/no credit basis. If the work for 6 or higher quality, the grade is work is below C level, it is to be recorded. In neither case is the grade or point computation. Students may add courses in accordance with the faculty advised that courses. This option may not be distribution requirements or if may not be taken in the student's courses and these courses are not included above.

EVALUATION

Reed College encourages its students to achieve the achievement by self-assessment and intellectual growth. We divide students by classes of achievement by self-assessment and intellectual growth. We divide students by classes of achievement by self-assessment and intellectual growth. We divide students by classes of achievement by self-assessment and intellectual growth. We divide students by classes of achievement by self-assessment and intellectual growth.
Hi Heather;

I've scanned the Reed course catalog pages that seem to answer your queries for 1935-36 and 1985-86.

I'm attaching with this email.

From the 1935-36 Catalog, Reed was (and is) on a semester term.

From the 1985-86 Catalog:

(see attached scans as well)

I've scanned the page w/math courses preceding Math 332.

I've scanned the courses required in the Math Dept. for a math major.

The overall graduation requirement in number of "units" is going to require an approximate answer as to the "How many credits (or hours or units, etc.) were needed for a student to obtain a Bachelors Degree".

I've scanned the relevant section that describes how to calculate how a Reed College "unit" equals semester "hours". Since there is a range noted—the approximate number of "hours" needed for a Bachelors Degree, from the 1985-86 Course Catalog would be 128, assuming 4 courses per semester taken, over 4 years--please refer to Attachment 2, for clarification.

I hope this helps, and good luck with your study,

Mark Kuestner
Special Collections Assistant,
Reed College Archives

On 5/9/2011 1:50 PM, Heather L. Huntington wrote:

Hi Mark,

Thank you again, dearly, for all your help! This is a big project and, as you know, is taking several year to complete!

My home address is:
12 19th Ave
Sea Cliff, NY 11579
DIVISION OF MATHEMATICS AND NATURAL SCIENCES

Introductory courses in the Division of Mathematics and Natural Sciences help students become familiar with elementary principles that form a basis for understanding each discipline. Instruction clarifies methods of observation, experimentation, analysis, and reasoning by which insight is gained into the nature of the mathematical and physical worlds. Introductory and advanced courses in mathematics and the natural sciences are planned as part of the students' education in the liberal arts. Advanced courses in different scientific fields extend students' knowledge and give them training in specialized techniques characteristic of the individual sciences.

An important part of a science student's experience at Reed is the thesis, an independent project of research or critical or creative work carried out under the guidance of a faculty member. For several years mathematics, biology, chemistry, and physics faculty have received grants which have increased equipment and resources available for senior thesis projects. Qualified seniors may gain valuable experience by assisting in work covered by grants.

By national standards, an unusually high percentage of graduates of the division continue their work in graduate school.

DIVISIONAL REQUIREMENTS

The Division of Mathematics and Natural Sciences has no requirements of its own. A student in the division must fulfill all the requirements for the department in which he or she majors, as well as general college requirements.

MATHMATICS

FACULTY and professional interests.

JOE P. BUEHLER
Algebra, number theory, and computational complexity.

HUBERT CHRESTENSON
Analysis.

JOHN LEADLEY
Algebra and category theory.

RAYMOND A. MAYER
Analysis.

NEAL NELSON
Computer science.

V. RAO POTHURI
Algebra.

JOE ROBERTS
Number theory and combinatorics.

THOMAS W. WIETING
Differential geometry and group representation theory. On sabbatical 1985-86.

BERTRAM YOOD
Analysis.

The three sequences, Math 108 and 210, Mathematics 110, Mathematics 200 and 201, as interchangeable prerequisites for upper-division courses in mathematics and for courses in other departments which calculus is used.

Mathematics 301 and 302 for upper-division non-majors.

COURSE REQUIREMENTS

Excludes of work needed to meet requirements:

1. Mathematics 108 and 210, or 200 and 201.
2. Mathematics 321, 331/3
3. Four additional units in courses (excluding Math 392, and 470) numbered 302.
4. One physics course.
5. Mathematics 470.

Mathematics courses present a program of general studies for the liberal arts student as well as for the student who plans to specialize in mathematics or in a field using mathematics.

Six courses are open to students who have had no previous college mathematics: Mathematics 108, 110, 132, 200, 301, and 302. Math 132 is a one-semester course (offered in the spring semester) which is not a prerequisite for further work in mathematics, but which provides an introduction to some techniques useful in discrete problems. Courses numbered 108, 110, and 200 are different beginning points for the calculus sequence. Students entering one of these courses must take the Reed mathematics placement examination.
The three sequences, Mathematics 108 and 210, Mathematics 110 and 210, and Mathematics 200 and 201, are regarded as interchangeable prerequisites for upper-division courses in mathematics and for courses in other departments in which calculus is used. Mathematics 101 and 302 are courses for upper-division non-science students.

**COURSE REQUIREMENTS**

1. Mathematics 108 and 210, 110 and 210, or 200 and 201.
3. Mathematics 301 and 302 are courses which calculus is used.
4. One physics course.
5. Mathematics 470.

**COURSE OFFERINGS**

108 ANALYSIS I: ALTERNATIVE A

- Full course for one year. The subject of the course is the same as Mathematics 110 (see below). However, Mathematics 108 is designed for those students who enter with inadequate backgrounds in algebra. This course meets more frequently than Mathematics 110; the extra time provides for work on some algebraic techniques and ideas needed in the course. Prerequisite: students should have completed two years of high school mathematics and must have taken the Reed mathematics placement examination. Lecture-conference.

110 ANALYSIS I: ALTERNATIVE B

- Full course for one year. An introduction to the concepts and techniques of discrete and continuous mathematics. The first part of the course will be devoted to the structure of the real number system and the limit concept. The second part is devoted to calculus of functions of one-variable, including derivatives, the definite integral and the fundamental theorem of calculus. Prerequisite: students should have completed two years of algebra, one year of plane geometry, and must have taken the Reed mathematics placement examination. Lecture-conference.

112 FINITE MATHEMATICS

- Full course for one semester. This course will cover permutations, combinations, finite mathematical structures, inclusion-exclusion principle, elements of the theory of graphs, permutation groups and the rudiments of Polya theory. Prerequisite: three years of high school mathematics or permission of the instructor. Lecture-conference.

200 ANALYSIS II: ALTERNATIVE C


210 ANALYSIS II: ALTERNATIVE A/B

- Full course for one year. A continuation of Mathematics 108 or 110, including Taylor's theorem, infinite series, ordinary differential equations, and an introduction to calculus of functions of several variables. Prerequisite: Mathematics 108 or 110. Lecture-conference.

211/S14 COMPLEX ANALYSIS


212 ADVANCED CALCULUS

- Full course for one semester. A careful study of continuity and convergence in metric spaces. Sequences and series of functions, uniform convergence, normed linear spaces. Prerequisite: Mathematics 201 or 210. Mathematics 311 or 314 may be taken before or at the same time as this course. Lecture-conference.

312 ORDINARY DIFFERENTIAL EQUATIONS

- Full course for one semester. An introduction to the theory of ordinary differential equations. Existence and uniqueness theorems; global behavior of solutions; stability theory; qualitative theory; numerical methods. Prerequisite: Mathematics 200 or 210. Mathematics 311 or 314 may be taken before or at the same time as this course. Lecture-conference.

313/334 LINEAR ALGEBRA

- Full course for one semester. A brief introduction to field structures, followed by presentation of the algebraic theory of finite dimensional vector spaces. Geometric concepts of inner product spaces is examined in the setting of real and complex fields. Mathematics 201 or 210 may be taken before or at the same time as this course. Lecture-conference.
332 ABSTRACT ALGEBRA
Full course for one semester. An elementary treatment of the algebraic structure of groups, rings, fields, and/or algebras. This course may touch on a number of areas, but is primarily concerned with only one. Prerequisite: Math 331 or 334. Lecture-conference.

361/362 NUMERICAL ANALYSIS
Full course for one semester. Representation of numbers in a computer. Computer arithmetic, propagation of errors. Linear and nonlinear equations. Numerical differentiation and integration. The eigenvalue problem. A small amount of time will be spent discussing some high-level computer language. Students will be required to write computer programs. Prerequisites: Mathematics 201 or 210, and 331 or 334. Lecture-conference. Offered in alternate years. Math 361 will be offered fall 1985. Math 362 will be offered spring 1986.

381 ALGORITHMS AND DATA STRUCTURES
Full course for one semester. An introduction to abstract data types and their representations followed by a study of a variety of algorithms. Topics include data structures and algorithms related to lists, stacks, queues, trees, graphs, hashing, sorting, and searching plus general algorithm strategies and algorithm analysis. Prerequisites: Math 210 or 201, knowledge of programming. One-time offering only, 1985-86. Lecture-conference.

401/404 PROBABILITY
Full course for one semester. A development of probability theory in terms of random variables defined on discrete sample spaces. Special topics may include: Markov chains, Stochastic processes, measure-theoretic development of probability theory. Prerequisites: Mathematics 201 or 210. Lecture-conference. Math 401 will not be offered fall 1985. Math 404 will be offered spring 1986. Cross-listed as Philosophy 417/420.

402 MATHEMATICAL STATISTICS
Full course for one semester. Continuous random variables are studied in the context of the theory of estimation and of testing hypotheses. To which may be included are Bayesian inference, general linear models, analysis of variance, multiple linear regression. Prerequisite: Mathematics 401 or the equivalent. Lecture-conference. Offered in alternate years. Not offered 1985-86. Cross-listed as Sociology 402.

411 TOPICS IN ADVANCED ANALYSIS I
Full course for one semester. Topics selected by the instructor. Prerequisite: Mathematics 32 or permission of instructor. Lecture-conference.

412 TOPICS IN ADVANCED ANALYSIS II
Full course for one semester. Topics selected by the instructor. Prerequisite: Mathematics 32 or permission of instructor. Lecture-conference. Offered in alternate years; will be offered 1985-86.

413 ELEMENTARY NUMBER THEORY
Full course for one semester. A study of the integers, including topics such as divisibility, the prime numbers, congruences, and solution of linear equations in the integers. Prerequisite: junior standing or permission of instructor. Lecture-conference. Offered in alternate years; will be offered 1985-86.

431 ALGEBRAIC STRUCTURES
Full course for one semester. Selected topics from the study of various algebraic structures and applications. Prerequisite: Mathematics 313/33 or permission of instructor. Lecture-conference.

452 TOPICS IN ALGEBRA
Full course for one semester. Topics selected by the instructor. Prerequisite: Mathematics 313/33 or permission of instructor. Lecture-conference. Offered in alternate years; not offered 1985-86.

470 THESIS
One-half or full course for one year.

481/482 SPECIAL TOPICS
One-half course for one semester. Independent reading. Prerequisite: junior or senior standing and approval of instructor and division.
BIOLOGY

FACULTY

and professional interests.

STEPHEN ARCH
Neurobiology; neurochemistry; regulatory control mechanisms. On sabbatical and leave 1985-86.

BERT G. BREHM
Plant evolution and systematics; pollination biology.

G. FRANK GWILLIAM
Neurobiology; invertebrate zoology; marine biology.

ROBERT H. KAPLAN
Evolutionary ecology.

LEWIS KLEINHOLZ
Physiology and chemistry of neurosecretion.

MARYANNE C. McCLELLAN
Cellular biology; electron microscopy; hormonal regulation of subcellular differentiation.

LAURENS N. RUBEN
Immunology; developmental biology.

PETER J. RUSSELL
Structure, function, and biosynthesis of eukaryotic ribosomes; recombinant DNA analysis of ribosomal RNA genes; molecular biology of development in dimorphic fungi.

HELEN A. STAFFORD
Plant physiology and regulation of phenolic metabolism.

Reed students may broaden their research experience by arrangement with faculty of the Oregon Health Sciences University, the Oregon Graduate Center, and the Oregon Regional Primate Research Center. Additionally, faculty of the Neuro-sciences Institute of Good Samaritan Hospital and Medical Center hold adjunct appointments in the Reed biology department.

This atmosphere provides students with an unusual opportunity to develop an understanding of themselves as well as a firm background in the field, regardless of what their goals might be. Information on the subsequent history of biology graduates shows that about 60 percent enter teaching and/or research in biology, while 35 percent enter the medical sciences. Most of those who attend medical school go into practice or are concerned with health care delivery; 25 percent of them hold teaching and/or research posts in schools of medicine. This is a unique record, largely due to a synergism between the interests and motivations of Reed students and the nature of the program offered.

While one may choose courses leading toward graduate or professional work in biology or medicine, the alternate biology major allows the flexibility of combining biology "minors" from other areas of inquiry, e.g., economics, anthropology, psychology, etc. This combination of biology with other disciplines can prepare the student who wishes to deal with diverse areas such as urban planning, behavioral sciences, forest or health care management, and environmental law. Faculty advisers can help fashion programs suited to the individual student's motivations and interests. Additional joint degree programs can be arranged between the biology department and most other Reed departments.

The program offered by the biology department emphasizes the development of the student's capacity to use and create information. The department provides a variety of opportunities for students to challenge their own abilities to create the intellectual framework and learn the techniques necessary for answering the questions that interest them. The faculty, through active professional research programs of their own, offer opportunities for student involvement in the "business" of biology. An active guest-scientist program adds to the unique research-oriented experience for the Reed biology undergraduate.
sely with their professors throughout

ly given their grades, although they pose. This is to encourage students to intellectual growth rather than a letter

ity adviser who offers guidance and performance, and career goals. Advising to the students’ interests, and may Registrar’s Office. The Dean of Stu-
areer counselors are also available to situational concerns.

PROGRESSION TO THE BACHELOR OF ARTS DEGREE

The general curricular path at Reed is designed to ensure that the student is exposed to a broad range of subject areas. Distribution requirements that include the arts, social sciences, mathematics, foreign languages, and natural sciences expose the student to many different methods of intellectual inquiry.

Typically, students begin to concentrate in one particular field by the close of the sophomore year. After declaring a major, students plan a program which meets both division and departmental requirements with the help of their faculty adviser.

While the needs and interests of each student help determine the individual programs of study, there are several requirements that are the cornerstones of a Reed education.

1. Every student takes a one-year course in Humanities.

2. All seniors engage in a one-year research project, and prepare and defend a thesis based on that research.

In order to receive the bachelor of arts degree, Reed students must complete a certain number of course units in a variety of subjects. Each division or department has its own set of requirements for students majoring in their field.

For more specific information on course and distribution requirements, see the section titled “Academic Policies.”
Reed students have the opportunity to major in a wide variety of fields. They may select a major from one of the following:

<table>
<thead>
<tr>
<th>Field</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>French Literature</td>
</tr>
<tr>
<td>Art</td>
<td>General Literature</td>
</tr>
<tr>
<td>Biology</td>
<td>German Literature</td>
</tr>
<tr>
<td>Chemistry</td>
<td>History</td>
</tr>
<tr>
<td>Classics</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Economics</td>
<td>Music</td>
</tr>
<tr>
<td>English Literature</td>
<td>Philosophy</td>
</tr>
</tbody>
</table>

In addition, interdisciplinary majors are available in:

<table>
<thead>
<tr>
<th>Field</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Studies</td>
<td>Literature-Theatre</td>
</tr>
<tr>
<td>Chemistry-Physics</td>
<td>Mathematics-Economics</td>
</tr>
<tr>
<td>Classics-Religion</td>
<td>Mathematics-Physics</td>
</tr>
<tr>
<td>Dance-Theatre</td>
<td>Mathematics-Sociology</td>
</tr>
<tr>
<td>History-Literature</td>
<td>Medieval Studies</td>
</tr>
<tr>
<td>International Studies</td>
<td>Philosophy-Mathematics</td>
</tr>
<tr>
<td>Literature-Philosophy</td>
<td>Philosophy-Religion</td>
</tr>
</tbody>
</table>

To supplement these established interdisciplinary majors, special programs that link two or more disciplines may be approved. The student’s adviser and the departments concerned must review the proposed program.

Course numbers ending in 0, 7, or 8 are year-long courses; those ending in 1, 3, or 5 are taught in fall semester; those ending in 2, 4, or 6 are taught in spring semester. 100 level classes are introductory courses that have no prerequisites; 200 level courses are introductory courses that normally have some prerequisite; 300 level courses are intended for students with a background in the discipline; and 400 level courses are advanced courses with more than one prerequisite.

For the most part, courses considered basic to the discipline of a department are given every year. In addition, departments expand their offerings by including work in other areas on a two- or, occasionally, three-year cycle. Courses marked “not offered 198-” or “offered in alternate years” can be expected in the departmental schedules in the next year or two.