Reed 1985-86 P.124

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 $3\frac{1}{2}$ to $4\frac{1}{2}$ academic units per semester (plus $\frac{1}{2}$ unit of physical education for freshmen and sophomores). Students who register for less than 3 or more than $4\frac{1}{2}$ 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 UW 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 CREI

During their junior or senior y of taking as part of their regula two units of work on a creditgraded basis. If the work for ti or higher quality, the grade is work is below C level, it is to b In neither case is the grade or point computation. Students n courses in accordance with th cerning the dropping of cc approved by the faculty advi course. This option may not be distribution requirements or re may not be taken in the studer courses are designated as avails cases, these courses are not incl indicated above.

EVALUATION

Reed College encourages sta achievement by self-assessmen rial and intellectual growth. T divide students by labels of achi letter grade for each course is r Registrar's office does not dista viding work continues at sati Unsatisfactory grades are repor dents whose records are satisfi from their faculty advisers, the of Students, if they wish to do

Students' work is closely observed instructors, with these evaluand faculty adviser in individual students whose work is incorrestandard, faculty submit commof the student's problem, in a These comments are considered when a decision is made as to needs to be taken.

CubMail :: Search Results: Re: Cajori Two Curriculum Research Project nttps://cuoman.cc.commona.cu/norde/nnp/message.php.actering

Reed 1985-86

May 2011 14:07:39 -0700 [05/10/11 17:07:39 EDT]

Date: Tue, 10 May 2011 14.07.39 -0100 [501011 11:00]											
From:	From: Mark Kuestner <kuestnem@reed.edu></kuestnem@reed.edu>										
To: "Heather L. Huntington" <hlh2105@columbia.edu>, Gay Walker <gay.walker@reed.edu></gay.walker@reed.edu></hlh2105@columbia.edu>											
Subject: Re: Cajori Two Curriculum Research Project											
Part(s):	B	2	ReedCatalog1_1985-86.jpg	[image/jpeg]	260 KB						
	ß	3	ReedCatalogGradReq_1985-86.jpg	[image/jpeg]	237 KB					X	
	B	4	ReedCatlgMathReq1985-86.jpg	[image/jpeg]	16 KB						
Ĩ≣ 1 unnamed [text/plain] 1.45 KB											
Hi Hea	athe	r;									

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 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.



MATHEMATICS College

FACULTY and professional interests.

JOE P. BUHLER 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 POTLURI Algebra.

JOE ROBERTS Number theory and combinatorics.

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

BERTRAM YOOD Analysis.

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.

1985+1986

The three sequences, Matl and 210, Mathematics 110 Mathematics 200 and 201, as interchangeable prere upper-division courses in and for courses in other de which calculus is used.

Mathematics 301 and 302 for upper-division non-! dents.

COURSE REQUIREMENT Exclusive of work needed to meet requirements:

- 1. Mathematics 108 and 21 210, or 200 and 201.
- 2. Mathematics 321, 331/3.
- Four additional units in courses (excluding Math 392, and 470) numbered 302.
- 4. One physics course.
 - 5. Mathematics 470.



MATHEMATICS

FACULTY and professional interests.

IOE P. BUHLER Algebra, number theory, and computational complexity.

HUBERT CHRESTENSON Analysis

JOHN LEADLEY Algebra and category theory.

RAYMOND A. MAYER

NEAL NELSON Computer science.

V. RAO POTLURI Algebra.

JOE ROBERTS Number theory and combinatorics.

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

BERTRAM YOOD Analysis.

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 cal-culus 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 301 and 302 are courses for upper-division non-science students.

COURSE REQUIREMENTS

Exclusive of work needed to meet general college requirements

- 1. Mathematics 108 and 210, or 110 and 210, or 200 and 201.
- Mathematics 321, 331/334, and 332. 2. 3. Four additional units in mathematics
- courses (excluding Mathematics 391, 392, and 470) numbered higher than 302
- 4. One physics course.



COURSE OFFERINGS

Reed 1985-86 P. 61

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 stu-dents 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 place ment examination. Lecture-conference.

110 ANALYSIS I: ALTERNATIVE B

Full course for one year. An introduction to the concepts and techniques of discrete and continu-ous 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.

132 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 I: ALTERNATIVE C

Full course for one year. This course and its sequel Mathematics 201, are for freshmen who have had a one-year course in calculus. The first part of the course will be devoted to the structure of the real number system and the limit concept. The second part of the course will include topics from one-variable calculus, as needed, and will begin the study of calculus of functions of several variables. Prerequisite: one year of calculus and Reed mathematics placement examination. Lectureconference.

201 ANALYSIS II: ALTERNATIVE C

Full course for one semester. Continuation of Mathematics 200. Prerequisite: Mathematics 200. Lecture-conference

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

Archivist informs these are the requirements for the major.

261 INTRODUCTORY STATISTICS

Full course for one semester. An introduction to estimation and tests of hypotheses. Emphasis will be upon the selection of optimal discrete or con-tinuous probability distributions as models for chance experiments. Prerequisite: Mathematics 108 or 110. Lecture-conference. Cross-listed as Sociology 261.

301 AND 302 GENERAL MATHEMATICS 1 & II

Each is a full course for one semester. Each of these courses is designed to acquaint students with the nature of mathematics as a discipline and as a science useful in examining the world. With the hardre of mathematics as a discipline and as a science useful in examining the world. Though the students are not expected to have studied much mathematics, these courses will deal with matters requiring careful and precise reason-ing; in the process, students will be expected to acquire a number of mathematical skills. Students cherd description of mathematical skills. should consult the instructors for more detailed information about the courses. Since the topics covered in Mathematics 301 and 302 will vary from year to year, a student taking a second course in this group must consult the instructor to insure that the previous work will not be duplicated. Lecture-conference.

311/314 COMPLEX ANALYSIS

Full course for one semester. A study of complex valued functions: Cauchy's Theorem and residue theorem, Laurent series, and analytic continuation. Prerequisite: Mathematics 201 or Mathema-tics 210. Lecture-conference. Math 311 will not be offered fall 1985. Math 314 will be offered spring

321 ADVANCED CALCULUS

Full course for one semester. A careful study of continuity and convergence in metric spaces. Se-quences and series of functions, uniform con-vergence, normed linear spaces. Prerequisite: Mathematics 201 or 210. Mathematics 331 or 334 may be taken before or at the same time as this course. Lecture-conference

322 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 201 or 210. Mathematics 331 or 334 may be taken before or at the same time as this course. Lecture conference

331/334 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. Geometry 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.

Reed 1985-1986



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. Lectureconference.

341/342 GEOMETRY

Full course for one semester. Topics in geometry selected by the instructor. In recent years the course has dealt with the theory of plane ornaments, coordinatization of affine and projective planes, and non-Euclidean geometry. Prerequisite: Mathematics 331 or 334 or permission of the instructor. Lecture-conference. Offered in alternate years. Math 341 will be offered fall 1985. Math 342 will not be offered spring 1986.

351/352 MATHEMATICAL LOGIC

Full course for one semester. The course will be concerned with one or more of the following areas of mathematics: recursive function theory, model theory, computability theory, general theory of formal systems. Prerequisite: two years of college mathematics. Lecture-conference. Offered in alternate years. Math 351 will not be offered fall 1985. Math 352 will be offered spring 1986. Cross-listed as Philosophy 451/452.

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 not be offered spring 1986.

372 COMBINATORICS

Full course for one semester. Emphasis will be placed on enumerative combinatorics including such topics as the principle of inclusion-exclusion, formal power series and generating functions, and permutation groups and Polya theory. Selected other topics such as Ramsey theory, inversion formulae, the theory of graphs, and the theory of designs will be treated as time permits. Prerequisite: Mathematics 201 or 210. Lecture-conference. Offered in alternate years. Not offered 1985-86.

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, sets, trees, graphs, hashing, sorting, and searching; plus general algorithm strategies and algorithm analysis. Prerequisites: Math 210 or 201, knowledge of programming. Onetime offering only, 1985-86. Lecture-conference.

382 AUTOMATA AND LANGUAGES

Full course for one semester. A development of the classical and contemporary theory of automata, languages, and computability. The course covers finite automata and regular languages, pushdown automata and context free languages, a variety of Turing machines, recursive functions, Church's thesis, and uncomputability. The treatment is mathematical yet from the viewpoint of computer science and developing insight into the nature of computation. Prerequisites: Math 210 or 201, knowledge of programming. One-time offering only, 1985-86. Lecture-conference.

391 COMPUTER ARCHITECTURE

Full course for one semester. A study of the organization, interconnection, and operation of computing machines and computing resources such as storage, processors, programs, and input/output devices. Organizational methods are examined in respect to the demands of varying kinds of computational needs such as database operations, real time processing, scientific computing and others. The course leads naturally to a study of operating systems. Topics include single and multiple processors, shared and distributed memory, storage organizations, virtual memory, interrupts, synchronization, communication, networkin, input/ output, and instructions sets. Prerequisites:Math 210 or 201, knowledge of programming. One-time offering only, 1985-86. The course does not upper division mathematics requirements. Lecture-conference.

392 OPERATING SYSTEM PRINCIPLES

Full course for one semester. A study of operating system architecture and its relationship to a variety of computer architectures. The course examings the principles, issues and techniques of managing computing resources such as storage, processors, programs, and input/output devices to provide computing services. Topics include file systems, memory management, processor scheduling, process management, interprocess communication, storage management, protection, concurrent programming, interrupt and event handling, input/output, distributed systems, and networking. Prerequisites: Mathematics 201 and 210, Math 391. One-time offering only, 1985-86. The course does not fulfill upper division mathematics requirements. 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. Prerequisite: Mathematics 201 or 210. Lecture-conference. Math 401 will not be offered fall 1985. Math 404 will be offered spring 1986. Crosslisted as Sociology 401/404.

402 MATHEMATICAL STATISTICS

Full course for one semester. Continuous rand variables are studied in the context of the the of estimation and of testing hypotheses. To which may be included are Bayesian infere general linear models, analysis of variance, m ple linear regression. Prerequisite: Mathema 401 or the equivalent. Lecture-conference. Offiin alternate years. Not offered 1985-86. Cr listed as Sociology 402.

411 TOPICS IN ADVANCED ANALYSIS I

Full course for one semester. Topics selectethe instructor. Prerequisite: Mathematics 32 permission of instructor. Lecture-conference.

412 TOPICS IN ADVANCED ANALYSIS II

Full course for one semester. Topics selecte the instructor. Prerequisite: Mathematics 32 permission of instructor. Lecture-conference fered in alternate years; will be offered 1985-

421 ELEMENTARY NUMBER THEORY

Full course for one semester. A study of inteincluding topics such as divisibility, theo prime numbers, congruences, and solution equations in the integers. Prerequisite: juni senior standing or permission of instructor. ture-conference. Offered in alternate years; n fered 1985-86.

431 ALGEBRAIC STRUCTURES

Full course for one semester. Selected topics the study of various algebraic structures and applications. Prerequisite: Mathematics 331/33 332, or permission of instructor. Lecture-co ence.

432 TOPICS IN ALGEBRA

Full course for one semester. Topics select the instructor, for example, associative alg Galois theory, algebraic geometry, and geor algebra. Prerequisite: Mathematics 431 or pe sion of instructor. Lecture-conference. Offer 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. Indepe reading. Prerequisite: junior or senior sta and approval of instructor and division.

AUTOMATA AND LANGUAGES

I course for one semester. A development of classical and contemporary theory of auotata, languages, and computability. The course ers finite automata and regular languages, hdown automata and context free languages, riety of Turing machines, recursive functions, irch's thesis, and uncomputability. The treatit is mathematical yet from the viewpoint of puter science and developing insight into the ire of computation. Prerequisites: Math 210 or knowledge of programming. One-time offeronly, 1985-86. Lecture-conference.

Kee

COMPUTER ARCHITECTURE

course for one semester. A study of the organiin, interconnection, and operation of computmachines and computing resources such as ige, processors, programs, and input/output es. Organizational methods are examined in ect to the demands of varying kinds of compunal needs such as database operations, real processing, scientific computing and others. course leads naturally to a study of operating ms. Topics include single and multiple proirs, shared and distributed memory, storage nizations, virtual memory, interrupts, synvization, communication, networkin, input/ it, and instructions sets. Prerequisites:Math r 201, knowledge of programming. One-time ng only, 1985-86. The course does not upper on mathematics requirements. Lecture-conce.

PERATING SYSTEM PRINCIPLES

ourse for one semester. A study of operating n architecture and its relationship to a varicomputer architectures. The course examhe principles, issues and techniques of mancomputing resources such as storage, pro-'s, programs, and input/output devices to le computing services. Topics include ystems, memory management, processor uling, process management, interprocess unication, storage management, protection, rrent programming, interrupt and event ng, input/output, distributed systems, and rking. Prerequisites: Mathematics 201 and fath 391. One-time offering only, 1985-86. course does not fulfill upper division matics requirements. Lecture-conference.

1 PROBABILITY

Purse for one semester. A development of vility theory in terms of random variables 1 on discrete sample spaces. Special topics clude: Markov chains, Stochastic processes, re-theoretic development of probability Prerequisite: Mathematics 201 or 210. Lecnference. Math 401 will not be offered fall 1ath 404 will be offered spring 1986. Crosss Sociology 401/404.

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. Topics 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. Crosslisted as Sociology 402.

411 TOPICS IN ADVANCED ANALYSIS I Full course for one semester. Topics selected by the instructor. Prerequisite: Mathematics 321 or permission of instructor. Lecture-conference.

412 TOPICS IN ADVANCED ANALYSIS II

Full course for one semester. Topics selected by the instructor. Prerequisite: Mathematics 321 or permission of instructor. Lecture-conference. Offered in alternate years; will be offered 1985-86.

421 ELEMENTARY NUMBER THEORY

Full course for one semester. A study of integers, including topics such as divisibility, theory of prime numbers, congruences, and solutions of equations in the integers. Prerequisite: junior or senior standing or permission of instructor. Lecture-conference. Offered in alternate years; not offered 1985-86.

431 ALGEBRAIC STRUCTURES

Full course for one semester. Selected topics from the study of various algebraic structures and their applications. Prerequisite: Mathematics 331/334 and 332, or permission of instructor. Lecture-conference.

432 TOPICS IN ALGEBRA

Full course for one semester. Topics selected by the instructor, for example, associative algebra, Galois theory, algebraic geometry, and geometric algebra. Prerequisite: Mathematics 431 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.

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.

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.



sely with their professors throughout

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

Ity adviser who offers guidance and berformance, and career goals. Advisg to the students' interests, and may Registrar's Office. The Dean of Stuareer counselors are also available to icational 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:

Anthropology	French Liter			
Art	General Lite			
Biology	German Lite			
Chemistry	History			
Classics	Mathematic			
Economics	Music			
English Literature	Philosophy			

Literature Physics Literature Political Science Literature Psychology Religion natics Russian Literature Sociology phy Theatre

In addition, interdisciplinary majors are available in:

American Studies Chemistry-Physics Classics-Religion Dance-Theatre History-Literature International Studies Literature-Philosophy Literature-Theatre Mathematics-Economics Mathematics-Physics Mathematics-Sociology Medieval Studies Philosophy-Mathematics Philosophy-Religion 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.

...