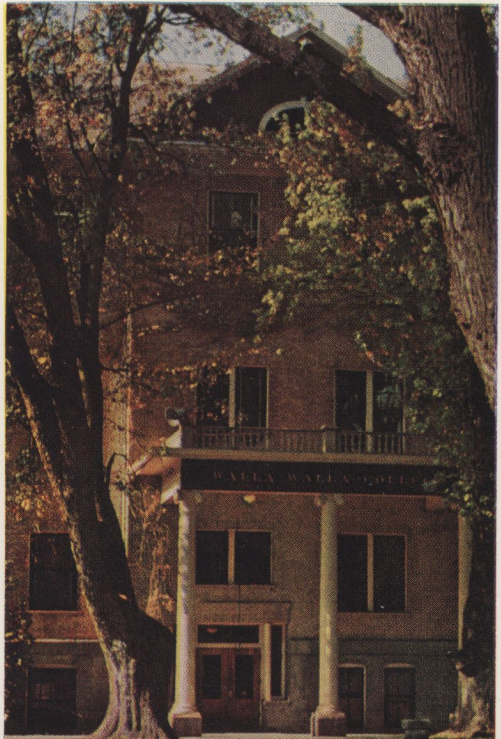


# WALLA WALLA COLLEGE

GRADUATE  
DIVISION



# 1956-1958



# Walla Walla College

BULLETIN

GRADUATE DIVISION



VOL. LXV

December, 1955

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ISSUED QUARTERLY



# CALENDAR

## 1956

Summer Quarter . . . . . June 4—August 17

## 1956-1957

Autumn Quarter . . . . . September 10—November 30

Winter Quarter . . . . . December 3—March 6

Spring Quarter . . . . . March 11—May 24

## 1957

Summer Quarter . . . . . June 3—August 16

## 1957-1958

Autumn Quarter . . . . . September 16—December 6

Winter Quarter . . . . . December 9—March 12

Spring Quarter . . . . . March 17—May 30

CHANGE OF CALENDAR

1956-1957

Autumn Quarter . . . . . September 17--December 7

Winter Quarter . . . . . December 10--March 6

Spring Quarter . . . . . March 12--May 31

1957

Summer Quarter . . . . . June 10--August 23

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## GENERAL INFORMATION

Walla Walla College is located in the historic and fertile Walla Walla Valley in the town of College Place, Washington. The Old Oregon Trail, near the campus, leads directly to the site of the old Whitman mission and the Whitman National Monument. The scenic Blue Mountains to the east are but a few minutes drive from the campus, and offer unusual opportunities for recreation and relaxation.

The College, in operation since 1892, is operated by the Seventh-day Adventist denomination, primarily as a center of higher education for its youth in the Pacific Northwest, and is fully accredited as a four-year liberal arts college by the Northwest Association of Secondary and Higher Schools, the Association of Seventh-day Adventist Colleges and Secondary Schools, and is also accredited as a four-year teacher-education institution by the Washington State Board of Education.

### REGULATIONS

*Student Citizenship.* Any individual who meets the entrance requirements of the College and who subscribes to its announced principles and standards will be considered for admission to Walla Walla College.

In all matters of personal conduct, students are expected to act as responsible citizens and members of a Christian community. Any student whose activities demonstrate lack of harmony with the principles and standards of the College thereby places in jeopardy his membership in the student body. Every effort will be made to stimulate students to worthy scholastic endeavor and consistent Christian living, but the College is not prepared to assume responsibility for students who are not in sympathy with its announced purposes.

*General Regulations.* Each individual coming to Walla Walla College as a prospective student is subject to the regulations of the College from the time of arrival in College Place, and remains under the jurisdiction of the College until his connection is terminated by graduation or officially approved withdrawal.

Any regulations adopted by the College faculty or board of trustees and publicly announced shall have the same force as if published in this Bulletin.

*Residence.* It is the policy of the College to require all unmarried students to live in one of the College residence halls and to board in the College dining room, unless they live with their parents in the immediate community. Under special circumstances, however, graduate students may make application to the Administrative Council for permission to live off the campus in an officially approved home. Students must not make any arrangements for such accommodations until approval has been given by the Administrative Council. Students who have received approval for off-campus living may be called into the College residence halls at any time.

*Chapel.* The tri-weekly chapel hour is regarded as a vital part of the total educational program at Walla Walla College. Graduate students are encouraged to attend chapel, although attendance is not required as in the case of undergraduate students.

*Sabbath Observance.* The seventh-day Sabbath is observed at Walla Walla College from sunset Friday to sunset Saturday, and all students are expected to conduct themselves in harmony with the sacred nature of the day. This includes attendance at the Friday evening devotional service, as well as Sabbath school and church service on Sabbath morning.

*Moral Conduct.* Students must abstain from behavior inconsistent with the basic principles of Christian living as interpreted by the College. Specifically this includes profane and unbecoming language, visiting pool halls or gambling places, attending the theater, motion pictures, or any other type of entertainment not approved by the College, the use of alcoholic beverages or tobacco in any form, card playing or having possession of cards, reading or having possession of pernicious literature, and engaging in improper associations. Those who engage in such practices will not knowingly be admitted or retained as students.

*Social Standards.* Walla Walla College is a co-educational institution, and as such recognizes the desirability of proper association among its students. The social policies of the College are fully outlined in the *Student Handbook*, and each student is responsible for becoming familiar with these policies and acting in harmony with them.

*Use of Vehicles.* Graduate students are permitted to bring automobiles to the campus, but must register them within forty-eight hours after arrival at the College; failure to comply with this regulation

makes the student liable to a minimum fine of \$10.00. Regulations governing the use of automobiles by students are published in the *Student Handbook*; students are expected to become familiar with these regulations, since failure to comply with them will result in disciplinary action.

*Medical Examination and Service.* At the time of admission to the College each student is required to submit evidence of a recent standard physical examination or to have such examination under the direction of the College physician.

# THE GRADUATE PROGRAM

The Graduate division of the College offers advanced work leading to the Master of Arts degree with a major in Zoology or Education. The objectives of the program are to broaden the student's knowledge and understanding, to develop scholarly habits, and to increase the competence of prospective teachers or teachers now in service.

## ADMISSION

Students seeking admission to the Graduate division should obtain an application blank from the Secretary of the Graduate Council and submit such application prior to the quarter in which the student proposes to commence graduate study. Official transcripts of all prior college and university work must be on file with the Secretary of the Graduate Council before admission to the Graduate division may be granted. The prerequisites for admission to the Graduate division are as follows:

1. Graduation from a recognized four-year college or university with an adequate background of undergraduate work in the proposed field of graduate study as determined by the Secretary of the Graduate Council through examination of official transcripts. An undergraduate major, or its equivalent, is prerequisite for graduate work in Biology. The minimum requirement for graduate work in Education is a minor or its equivalent. Any deficiencies in the undergraduate preparation must be satisfied by the completion of prescribed courses for undergraduate credit before full admission to the Graduate division may be obtained.
2. A "B" (2.0) average in the senior year of the undergraduate work. Provisional admission may be granted to students whose undergraduate scholarship is below this level. In such cases the student must maintain a "B" average or better for one full quarter before obtaining regular admission.

Admission to Graduate study does not imply admission to candidacy for the Master's degree. Students are advanced to candidacy for the degree only after demonstrating ability to do work of graduate character and upon evidence of the necessary personal qualities as adjudged by the members of the faculty.

### **TRANSFER OF GRADUATE CREDIT**

A maximum of nine quarter credits of Graduate work may be accepted by transfer from other recognized institutions. Correspondence courses are not accepted for Graduate credit.

### **SCHOLARSHIP REQUIREMENTS**

Students wishing to qualify for the Master's degree must maintain a grade-point average of 2.00 (B average) or higher on all course work taken in residence. Grades below C are not accepted for graduate credit. The grade-point average is computed on all graduate work taken in residence.

### **COURSE NUMBERING**

Courses numbered 200 or above are particularly intended for graduate students. Certain courses numbered 150 or above may be taken for graduate credit upon the recommendation of the major professor. Courses numbered below 150 do not carry graduate credit.

### **MAXIMUM LOAD**

The maximum load for graduate students is sixteen credits per quarter. Twelve credits or above is considered a full load.

### **TIME LIMIT**

Candidates for the Master's degree must complete all degree requirements within six calendar years of initial registration in the Graduate division.

### **GRADUATE CREDIT FOR SENIORS**

A senior who is within 12 credits of completing the requirements for the baccalaureate degree and who otherwise meets the admission



requirements of the Graduate division may register for graduate work if recommended by the head of his department and approved by the Chairman of the Graduate Council. For such registration a petition for graduate credit in excess of senior requirements must be filed. Approval of the petition will be granted only if the student is directly proceeding toward completing graduation requirements, and does not register for more than sixteen credits. The maximum number of graduate credits earned by a senior in any quarter is equal to the difference between sixteen and the number of credits necessary to complete graduation requirements. The Master's degree is not conferred until two full quarters have elapsed after receiving the baccalaureate degree.

### TUITION

The tuition rate for graduate students is \$12.00 per quarter credit. Prior to registration all students are required to make an advance deposit. Students pay actual school charges at the close of each month. The advance deposit is held in reserve until the last month of the school year or until the student leaves school. The Board of Trustees reserves the right to change tuition or fees without prior notice. For complete information concerning advance deposit, cafeteria rates, housing, etc., see the current main bulletin.

### FEES

There are no registration, lyceum, health service, or Associated Students fees for graduate students. Participation in these activities and services is optional. Students who wish the benefits of these activities and services are charged at the same rate as undergraduate students. For specific information concerning these charges, see the current main bulletin.

Certain special or laboratory fees may be charged. The following special fees are charged:

Late registration	\$ 5.00
Graduation (includes hood and degree)	25.00
Thesis publication	25.00

The following courses carry laboratory fees in addition to the tuition:

BULLETIN No.	COURSE	PER QUARTER
164, 165, 166	Advanced Arts and Crafts	\$10.00
196	Advanced Interior Decoration	4.00
153	Advanced Weaving and Upholstering	4.00
171, 172, 173	Audio-Visual Education	7.50
	Biology (all courses with laboratories)	10.00
203	Curriculum Workshop	4.00
163	Experimental Cookery	7.50
178	Institutional Management	4.00
171-172	Nutrition	2.50
208	Special Problems Grades 1-8	4.00
181-182	Tailoring	4.00

The College offers a limited amount of work for students who wish to defray a portion of their school expenses. A number of graduate fellowships are available for graduate students majoring in Zoology. Fellowship students may register for a maximum of ten credits per quarter.



## DEGREE REQUIREMENTS

The Master of Arts degree may be conferred upon completion of a minimum of 45 credits of approved graduate credit. At least 25 credits in the major field and 12 credits in the minor field are required. Students majoring in Education may elect two areas of concentration totaling 20 credits instead of the minor. In no case may one of the areas be less than 8 credits. The minor field or areas of concentration are chosen in counsel with the major professor.

Three quarters in residence or the equivalent are required. Students majoring in Zoology must spend one quarter at the Biological Station.

*Major Professor.* Upon admission to the Graduate division the chairman of the Graduate Council appoints the major professor who assists the student in the preparation of a program of study and serves as the director of the thesis or project.

*Program of Study.* Each prospective candidate for the Master's degree shall submit to the Graduate council a program of study approved by the major professor. The program must also have the approval of the head of the department in the minor field or each area of concentration. This program must be filed during the first quarter of residence and be approved before the end of the quarter.

*Advancement to Candidacy.* A student is not considered as a candidate for the degree until the general background tests and the preliminary comprehensive examinations have been successfully completed. The general background test should be taken during the first quarter of residence. The preliminary comprehensive examination should be taken during the second quarter of residence and at least one quarter before the degree is to be conferred. Upon recommendation of the major and minor professors the student is advanced to candidacy by the Graduate Council and is duly notified by the chairman.

*Thesis Requirements.* A thesis demonstrating ability to conduct research in a systematic and scholarly manner must be presented by each candidate, except that students majoring in education may, instead of the thesis, substitute two seminar reports, approved and directed by the major professor. Two copies of the thesis or the seminar reports

shall be submitted to the Graduate Council at least one week before the oral examination. An abstract of the thesis or report, to be 300 words or less in length, shall be submitted one week prior to the final comprehensive examination.

*Final Examination.* Candidates for the Master's degree must successfully complete a final comprehensive examination administered by a committee chosen by the Chairman of the Graduate Council in counsel with the major professor. The examination may be oral, or written, or both, and will cover the subject matter related to the candidate's field of study. Any candidate who fails this examination may, upon recommendation of the major professor and the approval of the Graduate Council, be granted a second examination after a lapse of at least one quarter. The second examination is final. Upon receipt of certificate indicating completion of the program of study and successful completion of all examinations the Secretary of the Graduate Council authorizes the conferring of the degree.

*Conferment of Degree.* Students are required to participate in the graduation exercises. Permission to receive the Master's degree in absentia is granted only by making special arrangements with the President of the College.



# COURSES OF INSTRUCTION

For specific information concerning the time the various courses are offered, see a current class schedule or the main bulletin.

## BIOLOGICAL SCIENCES

The department offers courses in zoology and botany on the main campus, at the Biological Station near Anacortes, Washington, and in the Field School of Biology. The courses are largely in the following branches: Animal Morphology, Animal Parasitology, Histology and Microtechnique, Physiology and Nutrition, Human Anatomy, Bacteriology, Ornithology, Mammalogy, Ichthyology, Entomology, Marine Invertebrates, Ecology, Plant Morphology, and Plant Taxonomy.

Graduate students majoring in Zoology must minor either in Botany or Chemistry. Students minoring in Botany who have no undergraduate deficiencies in Botany must complete at least 12 credits on the graduate level. Students minoring in Chemistry who have no undergraduate deficiencies in Chemistry must complete 12 credits on the graduate level and also 12 credits of Botany chosen in counsel with the major professor.

151. **MAMMALOLOGY.** A systematic study of mammals with emphasis on taxonomy and geographical distribution. Two hours attendance, eight hours laboratory. Four credits.

153. **ORNITHOLOGY.** A systematic study of amphibians, reptiles, and birds, with emphasis on taxonomy and geographical distribution. Two hours attendance, eight hours laboratory. Four credits.

155. **GENERAL ENTOMOLOGY.** A study of insect morphology, ecology, and the general principles of classification. Two hours attendance, three hours laboratory. Three credits.

156. **SYSTEMATIC ENTOMOLOGY.** A systematic study of insects. Two hours attendance, eight hours laboratory. Four credits.

157. **PALEONTOLOGY.** A study of plant and animal fossils, with a survey of the principles of geology. Two credits.

158. **GENETICS.** A study of the principles of inheritance in plants and animals, especially man. Two credits.

159. **PHILOSOPHY OF SCIENCE.** A study of origins of living things, of special creation as opposed to evolution, the Flood, glaciation, problems of species, and distribution of plants and animals. Two credits.

161-162-163. **SEMINAR.** A study of modern trends in biology; of current biological literature; presentation of scientific papers; group discussion of biological problems. One hour attendance. One-half credit per quarter.

164-165. **MORPHOLOGY OF PLANTS.** Detailed studies of the type forms of the main plant groups. Autumn quarter: Thallophytes and Bryophytes; winter quarter: Pteridophytes and Spermatophytes. Two hours attendance, six hours laboratory. Four credits.

166. **SANITARY BACTERIOLOGY.** Fundamental public health bacteriological procedures on foods, water, milk, blood, etc. Prerequisite: Microbiology. Two hours attendance, two three-hour laboratories. Four credits.

169. **FRESH WATER BIOLOGY.** A systematic study of the animals and plants found in fresh water lakes and streams. Field work includes trips to a number of lakes and streams. Four credits.

171. **ANIMAL MICROTECHNIQUE.** A course designed to cover the important methods of making microscope slides of animal tissues. One hour attendance, six hours laboratory. Three credits.

172. **VERTEBRATE HISTOLOGY.** The microscopic anatomy of vertebrate cells, tissues and organs including reference to their functions. Two hours attendance, six hours laboratory. Four credits.

173. **PLANT MICROTECHNIQUE.** A course designed to cover the important methods of technique in making microscope slides of plant tissues. One hour attendance, six hours laboratory. Three credits.

177-178. **PARASITOLOGY.** A systematic study of the morphology, life cycle, and the medical aspects of the protozoan, anthropolod, and worm parasites of the vertebrates with more emphasis on human parasitology. Two hours attendance, three hours laboratory. Three credits per quarter.

181. **MARINE INVERTEBRATES.** A systematic study of the invertebrate animals of Puget Sound with a survey of marine invertebrates from other areas. A review of ecological zones of Puget Sound will be included in the laboratory work. Four credits. (WWC Biological Station).

182. **ICHTHYOLOGY.** A systematic study of the fishes found in Puget Sound, with a survey of the fishes of other waters. Field work includes collecting of specimens. Four credits. (WWC Biological Station).

183. **MARINE BOTANY.** A systematic study of plants found in Puget Sound, with a survey of marine plants from other areas. Four credits. (WWC Biological Station).

186. **MEDICAL ENTOMOLOGY.** A study of medically important insects and arachnids with methods of control. Practical field experience is stressed. Prerequisite: at least one of the following courses: 155, 156, 177-178. Two hours attendance; three hours laboratory. Three credits.

191. **FOREST ENTOMOLOGY.** A study of economically important forest insects with methods of control. Practical field experience is stress-



ed. Prerequisite: 155. Two hours attendance, three hours laboratory. Three credits.

192. **FISHERIES BIOLOGY.** A study of marine and fresh water fisheries with emphasis upon fishery surveys and research methods, observation of hatchery and commercial fishing methods, and study of problems involved. Prerequisite: 182. Four credits. (WWC Biological Station).

193. **HISTORY OF BIOLOGY.** A survey of the history of biological work from the Greek period to the present. Two hours attendance. Two credits.

194-195. **METHODS IN RESEARCH.** A study of the entire field of biological literature, with emphasis on the research paper; methods of gathering data; methods of compiling data; methods of writing the finished paper; presentation of an acceptable research paper. One hour attendance. One credit per quarter.

199. **SPECIAL PROBLEMS.** Individual work to be carried on under the supervision of the instructor. Time and credit arranged.

201. **RESEARCH IN ZOOLOGY.** Individual work in a topic of original research carried out under one of the instructors. A report must be prepared for publication before credit will be allowed. Credit arranged.

202. **RESEARCH IN BOTANY.** Individual work in a topic of original research carried out under one of the instructors. A report must be prepared for publication before credit will be allowed. Credit arranged.

204-205-206. **SEMINAR.** Presentation of topics of current interest in biological science, followed by discussion. Each class member prepares a lecture as if for presentation before a scientific society meeting. One credit per quarter.

207. **GENETICS AND EVOLUTION.** Advanced study and criticism of evolution in all its phases; criticism of current books on evolution; study of major theories and hypotheses. Prerequisite: 158, 159. Three credits.

211. **PLANT ECOLOGY.** The relationships between plants and their environment, factors controlling distribution, and detailed study of biotic provinces throughout North America, including adequate field work and experimental methods. Four credits.

215. **MARINE INVERTEBRATES.** Detailed study of the invertebrate phyla with emphasis on the lesser groups not included in course 181, including experimental methods and embryology of marine animals. Prerequisite: 181. Two or more credits.

229. **PARASITES OF MARINE ANIMALS.** Original work with parasites of all groups of marine animals, including experimental methods and embryology. Prerequisite: 177-178, 181, 182. Two or more credits.

230. **ADVANCED PARASITOLOGY.** Original work with parasites of all forms of animal life, including determination of species, experimental methods and life histories. Prerequisite: 153, 156, 177-178, 182. Two or more credits.

235. **THESIS.** Preparation of the master's dissertation after successfully carrying out original study with a suitable topic to be selected after consultation with the major professor. Five to nine credits.

## EDUCATION

Graduate students majoring in education should choose two areas of concentration totaling 20 credits for the minor. At least 8 credits must be presented in an area. An adequate background of undergraduate work in the proposed areas of concentration is presumed. The areas and courses which may be selected are listed immediately following the Education course offerings.

156. **HISTORY OF EDUCATION.** A survey of the history of education from early times to the present with emphasis on the influence of Christian peoples. A brief study of education in the United States with special attention to the type of education sponsored by Seventh-day Adventists. Three credits.

159. **HISTORY OF EDUCATION IN THE UNITED STATES.** A history of education in the United States from colonial times to the present. Emphasis on the development of public and private education and changing concepts of the function of education during this period. Three credits.

166. **PRINCIPLES OF COUNSELING.** Consideration of effective techniques of counseling individuals in the solution of personal and personnel problems of the school, family, church, and community. Designed to aid teachers, social workers, ministers, doctors, nurses, and others engaged in public work. Two credits.

171, 172, 173. **PRINCIPLES OF AUDIO-VISUAL EDUCATION.** A survey of the methods of instruction through the use of audio-visual aids, including recording devices, motion pictures, slides, and film strips, charts, maps, posters, opaque projection, flat pictures, and blackboard illustrations. One hour attendance, three hours laboratory, two credits per quarter.

203. **CURRICULUM WORKSHOP.** A course in building the curriculum of the elementary school. Three credits.

208. **SPECIAL PROBLEMS IN GRADES 1-3.** A study of teaching techniques in a schoolroom situation; an analysis of special problems in the various areas of the elementary school. Registration limited. Three credits.

221. **PSYCHOLOGY OF LEARNING.** The course includes analysis of the mechanisms involved in the learning process. The physiological and psychological basis for functional learning is discussed, and the experimental evidence supporting psychological hypotheses is reviewed. Three credits.

222. **PHILOSOPHY OF EDUCATION.** A study of the basic principles and development of true education resulting in the formulation of aims and objectives of education for Christian society. Prerequisite: 156 or 159. Three credits.

223. **HISTORY OF THE PROBLEMS OF EDUCATION.** A course for advanced students dealing with educational problems in the light of their history. Textbook, readings, discussion, term paper. Prerequisite: 156 or 159. Three credits.

244. **HISTORY OF EDUCATIONAL THOUGHT.** Theories and practices of great educators in ancient and modern times. Interpretation of educational thought from Christian philosophical viewpoint. Evaluation of educational thought in western civilization. Two credits.

248. **MENTAL HEALTH IN EDUCATION.** Physiological and psychological factors related to emotional maturity. Identification of mental health activities. Individual mental health, classroom climate, patterns of acceptance and rejection. Two credits.

251. **COUNSELING AND GUIDANCE.** Principles and techniques of individual and group counseling with emphasis on the scope; needs; organization of the program; services to students, the instructional staff, and the administration; personnel needed for the program. Three credits.

255. **SCHOOL ADMINISTRATION AND SUPERVISION.** A course which presupposes some familiarity with problems of administration and supervision. An intensive study of more important problems of organization and administration in secondary and elementary education. Three credits.

256. **THE SECONDARY SCHOOL CURRICULUM.** The relation of curricular materials to educational outcomes in terms of personal and social values. A brief review of curriculum investigations and their significance in the selection and evaluation of secondary school materials and activities. Current practices in curriculum revision. Three credits.

265. **SEMINAR.** Methods of research applied to current educational issues and trends in America. Two credits.

266. **SEMINAR.** Topics in school administration dealing with instruction, personnel, school plant, finance, public relations, and other related areas. Two credits.

267. **SEMINAR.** Methods of measurement and evaluation applied to problems in career planning or vocational education.

280. **SPECIAL PROBLEMS IN EDUCATION.** Degree candidates who desire to pursue special research problems under the direction of the major professor may register for one to three credits under this number.

290. **THESIS.** Degree candidates who desire credit for a thesis should use this number. Five to nine credits.

## RELIGION

151. **RELIGION IN AMERICA.** Three credits.

152. **MODERN DENOMINATIONS.** Three credits.

153. **WORLD RELIGIONS.** Three credits.

155. **MANUSCRIPTS OF THE BIBLE.** Two credits.

161, 162, 163. **ADVANCED BIBLE DOCTRINES.** Three credits per quarter.

174, 175, 176. **ADVANCED LIFE AND TEACHINGS.** Two credits per quarter.

181-182. **THEORY OF EVANGELISM.** Two credits per quarter.

181A, 182A, 183A. **FIELD EVANGELISM.** One credit per quarter.

184, 185, 186. **NEW TESTAMENT EPISTLES.** Two credits per quarter.

192, 193. **SEMINAR IN RELIGION.** One credit per quarter.

## **CHEMISTRY**

151-152, 153. **PHYSICAL CHEMISTRY.** Three credits per quarter.  
151A-152A, 153A. **PRACTICAL PHYSICAL CHEMISTRY.** One credit per quarter.

156. **BIOCHEMISTRY FOR SCIENCE STUDENTS.** Three credits.

156A. **BIOCHEMISTRY LABORATORY.** One credit.

164. **ORGANIC SYNTHESIS.** Three credits.

165. **INORGANIC SYNTHESIS.** Three credits.

166. **ORGANIC QUALITATIVE ANALYSIS.** Three credits.

168. **ADVANCED ORGANIC CHEMISTRY.** Two credits.

193. **HISTORY OF CHEMISTRY.** Two credits.

## **ENGLISH**

154-155-156. **THE VICTORIAN PERIOD.** Two credits per quarter.  
157, 158, 159. **AMERICAN LITERARY MASTERS.** Two credits per quarter.

161, 162, 163. **THE ROMANTIC PERIOD.** Two credits per quarter.

166. **HISTORICAL AND MODERN GRAMMAR AND LINGUISTICS.** Three credits.

167-168-169. **RESTORATION AND NEO-CLASSIC LITERATURE.** Two credits per quarter.

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184, 185, 186. **ENGLISH RENAISSANCE LITERATURE.** Three credits per quarter.

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## PHYSICS

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