954. Music Supervision  
Summer of even-numbered years. 3(3-0)  
Completion of undergraduate program in Music Education.

955. Current Tendencies in Music Education  
Winter of odd-numbered years. Summer of odd-numbered years. 3(3-0) Completion of undergraduate program in Music Education.

958. Advanced Research Techniques in Music  
Spring, Summer. 3(3-0) Approval of department.  
Application of behavioral research to music including development and validation of original data gathering devices.

960. Analytical Studies in Music Literature  
Fall, Summer. 3(3-0) 382 and two years of music literature or approval of department.  
Melodic, formal, contrapuntal and harmonic analysis of music from plainsong to contemporary music.

961. Analytical Studies in Music Literature  
Winter, Summer. 3(3-0) 960.  
Continuation of 960.

962. Analytical Studies in Music Literature  
Spring, Summer. 3(3-0) 961.  
Continuation of 961.

970. Contrapuntal Techniques  
Fall of odd-numbered years. Summer. 3(3-0) 492 or approval of department.  
Advanced contrapuntal practice from the sixteenth century to the present.

971. Contrapuntal Techniques  
Winter of even-numbered years, Summer. 3(3-0) 970.  
Continuation of 970.

972. Contrapuntal Techniques  
Spring of even-numbered years, Summer. 3(3-0) 971.  
Continuation of 971.

990. Seminar in Theory  
Fall, Winter, Spring. 3(3-0)  
May re-enroll for a maximum of 9 credits. 492 or approval of department.

999. Research  
Fall, Winter, Spring. Variable credit. Approval of department.

220. Plants and Their Environment  
Winter. 3(3-0) Interdepartmental with and administered by the Forestry Department.  
Fundamental ecological relationships between various climatic, edaphic and biotic environmental factors of the ecosystem and plant response, including structure, function and evaluation of species.

275. Exploring International Agriculture  
Spring. 3(3-0) Interdepartmental with and administered by Agriculture.  
Exploration of overseas assignments with international agencies; potential world food actualities and potentials; special problems of the tropics compared with those in temperate regions.

350. Leadership Development for Agriculture and Natural Resources  
Winter, Spring. 3(3-0) May re-enroll for a maximum of 6 credits. Approval of department. Interdepartmental with and administered by Agriculture.  

399. Agriculture Internship  
Fall, Winter, Spring.  
Zero credit. [10 credits.] Junior and approval of department. Interdepartmental with and administered by Agriculture.  
An opportunity for exposure to the applied aspects of a student’s major. Supervision and evaluation conducted by faculty and cooperating agencies.

425. Agriculture and Natural Resources Seminar  
Spring. 3(3-0) Interdepartmental with and administered by Agriculture.  
Current agricultural, natural resources, and environmental problems and solutions as presented by discussion leaders from various disciplines, arranged by undergraduate students.

450. Natural Resource Administration  
Fall, Spring. 4(4-0) Interdepartmental with Fisheries and Wildlife, Forestry, Park and Recreation Resources and Resource Development Departments. Administered by the Forestry Department.  

471. Environmental Topics in Nonmetropolitan Regions  
Fall. 4(4-0) Nomination of students by own department and approved by participating faculty. Interdepartmental with the College of Natural Science and Agriculture.  
Environmental topics in nonmetropolitan regions including issues on; production agriculture, service industries, nonagricultural uses, rural urban balance, discussion topics and case studies.

7See page A-2 Item 3.

475. International Studies in Agriculture and Natural Resources  
Summer. 3 to 9 credits. Approval of the college. Interdepartmental with and administered by Agriculture.  
Study-travel experience emphasizing contemporary problems affecting agriculture in the world, national, and local communities. Field trips, case studies, interviews with leading experts, government officials, community leaders. Supervised individual study.

491. Natural Resources and Modern Society  
Spring, Summer. 3(3-0) Juniors. Interdepartmental with the Forestry and the Resource Development Departments and administered by Forestry Department.  
A survey of the social and economic significance of natural resources in modern industrial and urban society. Current problems of natural resources management and use are examined in terms of the society in which they exist.

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292. Soils and Man’s Environment  
Winter. 3(3-0) Interdepartmental with the Resource Development, and Fisheries and Wildlife Departments and Soil Science and administered by Soil Science.  
Use of soil and water resources in a technological society as it relates to environmental quality. Nature of pollution problems and their possible solutions. Food production and world population.

111. The Nature of Science I  
(182A.) Fall, Winter, Spring, Summer. 4(2-3)  
The development and validation of scientific concepts as examples of man’s attempt to understand the world in which he lives. Selected topics from the life sciences illustrate the process of scientific investigation.

112. The Nature of Science II  
(193A.) Fall, Winter, Spring, Summer. 4(2-3) 111 preferred; or 117, 112, 121, 131, 171H, 171, 181, or 192.  
Man’s attempts to explain the present in terms of past events are explored through selected topics from the life sciences and earth sciences. Stresses the role of controversy in science and the nature of scientific evidence.

113. The Nature of Science III  
(180, 191A.) Fall, Winter, Spring, Summer. 4(2-3) 111 preferred; or 116, 122, 132, 152, 162, 172H, or 182.  
The origin and development of scientific explanations of the physical world. The origins of modern science and scientific revolutions.

116. Integrated Studies in Science I  
(191D.) Fall, Winter, Spring, Summer. 4(2-3)  
Science as a process of studying of nature, explored through consideration of the organization science perceives in nature. Topics from the physical and life sciences used to illustrate the integration of the sciences into a concept of natural systems.
Descriptions — Natural Science of Courses

117. Integrated Studies in Science II
(192D.) Fall, Winter, Spring, Summer.
4(2-3) 116 preferred; or 129, 139, 169, or 321.
The role of science in the development of western man's ideas about reality. The origin and development of mechanistic concepts of the physical world and their part in intellectual dialogue.

118. Integrated Studies in Science III
(193D.) Fall, Winter, Spring, Summer.
4(2-3) 117 preferred; or 111, 121, 131, 151, 171H, 181, or 321.
The use and limitations of scientific problem-solving. The interaction of the physical, earth and life sciences.

120. Science, Beliefs and Values I
(191B.) Fall, Winter, Spring, Summer.
4(2-3) Man's attempts to understand the universe and his place within it. The interaction between scientific concepts and the beliefs and values of the culture in which they are proposed.

121. Science, Beliefs and Values II
(192B.) Fall, Winter, Spring, Summer.
4(2-3) 120 preferred; or 119, 129, 169, or 321.
The nature of living things, contrasting various scientific and non-scientific views. The implications of the modern scientists' understanding of life for our beliefs and values.

122. Science, Beliefs and Values III
(193B.) Fall, Winter, Spring, Summer.
4(2-3) 121 preferred; or 111, 117, 131, 151, 171H, 181, or 322.
Man's current understanding of himself and his beliefs as products of biological and cultural evolution. Implications for man's future.

127. The Bioecology of Health
Fall, Winter, Spring. 4(0-2)
Man's health examined as a result of evolutionary and ecological viewpoints. Emphasis on the impact of an increasingly man-made environment on health of Western man.

131. Science, Man and Society I
(192C.) Fall, Winter, Spring, Summer.
4(2-3) The role science plays in our lives is explored through consideration of aspects of reproduction and heredity. Emphasis on the origin of scientific explanations and their significance to the individual.

132. Science, Man and Society II
(193C.) Fall, Winter, Spring, Summer.
4(2-3) 131 preferred; or 111, 117, 131, 151, 171H, 181, or 322.
The origin and evolution of earth and man are studied as vital and related problems. Emphasis on problem-solving in science and the impact of evolutionary concepts on human societies.

133. Science, Man and Society IV
(191C.) Fall, Winter, Spring, Summer.
4(2-3) 132 preferred; or 112, 119, 129, 152, 162, 172H, or 322.

159. The Dynamics of Scientific Ideas I
(191C.) Fall, Winter, Spring, Summer.
4(2-3) The role of science in the development of western man's ideas about reality. The origin and development of mechanistic concepts of the physical world and their part in intellectual dialogue.

160. Evolution of Scientific Ideas I
(191B.) Fall, Winter, Spring, Summer.
4(2-3) The nature of science, its power, its limitations and the interaction of science and culture. The idea of motion and/or matter from early concepts to relativity.

161. Evolution of Scientific Ideas II
Fall, Winter, Spring, Summer. 4(2-3) The nature of science, its power, its limitations and the interaction of science and culture. The evolution of the gene concept from Mendel to modern times. Genetic theory—its application to man.

162. Evolution of Scientific Ideas III
(193F., 134.) Fall, Winter, Spring, Summer. 4(2-3) Any group, one course.
The nature of science, its powers, its limitations and the interaction of science and culture. Human races and mankind evolving. The biological concepts of races based on the theories of the gene, evolution, and natural selection.

171H. Honors Natural Science
(192H.) Fall. 4(2-3)
Exploration of various topics of interest and value to students eligible for Honors, especially the nature and significance of science in Western culture and its interrelationship with other creative activities.

172H. Honors Natural Science
(193H.) Winter. 4(2-3) 171H.
A continuation of 171H.

173H. Honors Natural Science
(191H.) Spring. 4(2-3) 172H.
Continuation of 172H.

181. Natural Science
(194H.) Approval of department.
The role of methods in science emphasizing the development and modification of systems of explanation. The nature of the cell and sexual reproduction as background for Mendelian gene theory and its modern modifications. Social implications are emphasized.

182. Natural Science
Winter. 4(2-3) 181 or approval of department.
Methods in science continued with emphasis on evolutionary ideas regarding the origin of earth features and existing life forms. The origin and development of man is considered along with a number of modern problems.

82. Studies in Natural Science I
Fall. 4(2-3) Juniors;
An interdisciplinary analysis of the nature of science and its role in the human experience, with emphasis on science as a way of knowing. Subject matter used includes material from the physical sciences.

322. Studies in Natural Science II
Winter. 4(2-3) Juniors;
An interdisciplinary study of the nature of science and its role in the human experience, with emphasis on the way science affects society and is, in turn, affected by society. Subject matter used includes material from the biological sciences.

323. Studies in Natural Science III
Spring. 4(2-3) Juniors;
An interdisciplinary approach to the nature of science and its role in the human experience, with emphasis on man and his understanding of the world around him. Subject matter used includes material from the historical sciences.

401. Technology Assessment
Spring. 3(3-0) Seniors, or approval of department. Interdepartmental with and administered by the Engineering Department. Sociotechnical evaluation of impact of proposed technologies on economic, political, and cultural aspects of society. Identification of technical strategies and social goals. Techniques of assessment.