Revised
University Curriculum Committee

11 November 2004 Meeting Minutes

Members present:
C. Estes, R. Graziani, T. Hudson, M. Schinasi, A. Juska

Guest present:
D. Coltraine

Members excused:
E. Arnold, L. Kean, E. Smith, D. Long, R. Mitchelson, R. Reaves

1) Approved without dissent the minutes of the 11 November 2004 meeting.

2) Professors Paul Bin and Gary Zinn from the Department of Economics presented the revisions to their BS degree tabled at the October 14th meeting. Revisions described their memo and the marked and final catalog copy. After brief discussion, Estes moved for approval, with a second by Graziani. Motion approved without dissent.

3) College of Business Associate Dean Buddy Zincone and Professor Marc McCarthy of the Department of Accounting spoke in favor of a revision to ACCT 4921 as described in their memo and catalog copy. After limited discussion, Estes moved for approval, with a second by Graziani. Motion approved without dissent.

4) College of Business Associate Dean Buddy Zincone and Management Department Chair Joe Tomkiewicz spoke in favor of changes to several MGMT courses and their in the degree requirements. Revisions outlined in their memo, marked catalog copy, and final catalog copy. After some discussion, the committee agreed that the catalog copy required some additions. Schinasi moved to table, with a second by Estes. Motion tabled.

5) Professors Mary Farwell and Chuck Singhas from the Department of Biology spoke in favor a renumbering of BIOL 3100,3101 to BIOL 2100,2101, as described in their memo and the marked and final catalog copy. During discussion, the committee suggested a few changes to the catalog description. Estes moved for approval, with a second by Graziani. Motion approved without dissent.

6) Professor Andy Sargent from the Department of Chemistry spoke in favor of revisions necessitated by changes proposed to CHEM 5550 submitted the Graduate Curriculum Committee. Revisions outlined in their memo, the course proposals

- CHEM 3450: Elementary Inorganic Chemistry
- CHEM 3451: Inorganic Chemistry Laboratory

and the marked and final catalog copy. Since the changes to CHEM 5550 have not yet passed the Graduate Curriculum Committee, Estes moved for approval of the packagecontingent upon approval of the revisions to CHEM 5550 by the GCC; Schinasi seconded. Motion approved without dissent. Note added 11/19/2004: The GCC tabled the revisions to CHEM 5550 until their 12/1/2004 meeting. Thus, these revisions do not appear in the catalog copy below.
7) Ms. Ann Greer and Professor Maria Clay from the Office of Interdisciplinary Health Sciences Education spoke in favor of new IRHE courses, as described in their memo. Courses include:

- IRHE 2000: Introduction to Rural Health Care Teams
- IRHE 2100: Rural Health Immersion
- IRHE 2500: Service Learning in Interdisciplinary Teams

Their package also includes marked and final catalog copy. After discussion, Estes moved for approval, with a second by Graziani. Motion approved without dissent.

8) Meeting adjourned at 3:40 pm.

Minutes submitted by T. D. Hudson

 UNIVERSITY CURRICULUM COMMITTEE

11 November 2004 Catalog Minutes

Department of Economics

Insert on p. 121 of 2004 – 2005 catalog:

Proposed curriculum changes for Economics BS

Present catalog copy with changes marked

BS in Economics
Economics majors are required to earn a minimum grade of C in each of the following courses: ECON 2113, 2133, 3144, 3244.

Minimum degree requirement is **120 s.h.** of credit as follows.

1. **General education (See Section 6, Undergraduate Studies, Requirements for Baccalaureate Degree Programs), including those listed below:**

   - MATH 1065. College Algebra (3) (F,S,SS) (GE:MA) (P: Appropriate score on mathematics placement test) or MATH 1066. Applied Mathematics for Decision Making (3) (F,S,SS) (GE:MA) (P: Appropriate score on mathematics placement test or approval of dept chair)

2. **Common Core**

   - MATH 2283. Statistics for Business (3) (F,S,SS) (P: MATH 1065 or 1066 or equivalent)

   - Choose additional electives as follows:
     - **Applied Economics:** An additional 18 s.h. of ECON above 2999, including at least 6 s.h. above 3999
     - **Quantitative:** An additional 21 s.h. of ECON above 2999, including at least 6 s.h. above 3999

3. **Concentration area (Choose one.)**

   - Choose from:
     - **Applied Economics:**
       - ACCT 2401. Financial Accounting (3) (F,S,SS) (P: MATH 1065 or 1066 or 2119 or 2121 or 2171)
       - ACCT 2521. Managerial Accounting (3) (F,S,SS) (P: ACCT 2401)
       - COMM 2410. Public Speaking (3) (F,S,SS) (GE:FA) or COMM 2420. Business and Professional Communication (3)

   - **Quantitative:**
       - ECON 2113. Principles of Microeconomics (3) (F,S,SS) (GE:SO) (P: ECON 2113)
       - ECON 3144. Intermediate Microeconomics (3) (F,S) (GE:SO) (P: ECON 2113)
       - ENGL 3880. Writing for Business and Industry (3) (WI) (F,S,SS) (P: ENGL 1200)
       - MATH 2283. Statistics for Business (3) (F,S,SS) (P: MATH 1065 or 1066 or equivalent)
ECON 3343. Econometrics (3) (F,S) (GE:SO) (P: DSCI 2223 or CSCI 2600; ECON 2133; MATH 2283)

FINA 2244. Legal Environment of Business (3) (F,S,SS)

FINA 3724. Financial Management (3) (F,S,SS) (P: ECON 2113; MATH 2283; C: ACCT 2521 or 3551)

MATH 2119. Elements of Calculus (3) (F,S,SS) (GE:MA) (P: MATH 1065 with a minimum grade of C)

An additional 18 s.h. of ECON above 2999, including at least 6 s.h. above 3999

Quantitative:

MATH 1085. Pre-Calculus Mathematics (5) (F,S,SS) (GE:MA) (P: MATH 1065 with a minimum grade of C)

Math 1083. Introduction to Functions (3) (F,S,SS) (GE:MA) (P: Consent of dept. chair)

MATH 2171. Calculus I (4) (F,S,SS) (GE:MA) (P: MATH 1083 or 1085 or 2122 with minimum grade of C)

MATH 2172. Calculus II (4) (F,S,SS) (GE:MA) (P: MATH 2122 with a minimum grade of C or MATH 2171)

MATH 2173. Calculus III (4) (F,S,SS) (GE:MA) (P: MATH 2172)

MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)

MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172) or MATH 3307. Mathematical Statistics I (3) (F,S,SS) (P: MATH 2172) or ECON 3343. Econometrics (3) (F,S) (GE:SO) (P: DSCI 2223 or CSCI 2600; ECON 2133; MATH 2283)

An additional 21 s.h. of ECON above 2999, including at least 6 s.h. above 3999

4. Electives, or optional minor and electives, to complete requirements for graduation. (Grades in required cognate courses will be used in computing the GPA in the major even in those cases in which the same courses are a part of the minor.)

Insert on p. 288 of 2004 – 2005 catalog

Department of Accounting in the College of Business
4921. Accounting Problems (3) Registration preference given to declared majors with a minimum 2.5 GPA. P: ACCT 3561,3621. Emphasis on areas of cost accounting, international accounting, business combinations, practical application, and audit. Accounting for Managers (3) (F,S) P:ACCT 2521. An overview of business processes, internal control and taxation. Includes exposure to a generalized accounting software package.

**Final (unmarked) Catalog Copy:**

4921. Accounting for Managers (3) (F,S) P:ACCT 2521. An overview of business processes, internal control and taxation. Includes exposure to a generalized accounting software package.

Department of Biology in the College of Arts & Sciences

Insert on pp. 114 – 116 of 2004 – 2005 catalog:

SECTION 7: ACADEMIC PROGRAMS

BIOL 5150, 5151. Herpetology (4,0) (S) (P: 8 s.h. in BIOL)
BIOL 5200, 5201. Invertebrate Zoology (4,0) (F) (P: 6 s.h. in BIOL)
BIOL 5220, 5221. Limnology (4,0) (S) (P: BIOL 2250, 2251; or consent of instructor)
BIOL 5230, 5231. Phycology (4,0) (P: BIOL 1200, 1201)
BIOL 5260, 5261. Microbial Ecology (4,0) (S) (P: BIOL 2250, 2251, 3220, 3221; or consent of instructor)
BIOL 5270. Marine Community Ecology (3) (S) (P: BIOL 2250, 2251; or consent of instructor)
BIOL 5351. Biological Processes and the Chemistry of Natural Water (2) (S) (P: BIOL 2250, 2251; 2 CHEM courses; or consent of instructor)
BIOL 5550, 5551. Ichthyology (4,0) (F)
BIOL 5640, 5641. Entomology (4,0) (F) (P: Twelve s.h. in BIOL)
BIOL 5730, 5731. Animal Physiological Ecology (4,0) (S) (P: BIOL 2250, 2251; 3310, 3311 or 3320, 3321 or 5800; or consent of instructor)
BIOL 5950, 5951. Taxonomy of Vascular Plants (4,0) (F) (P: 12 s.h. in biology or consent of instructor; RP: BIOL 2250, 2251)
Marine Biology:

BIOL 3660. Introduction to Marine Biology (3) (F,S,SS) (P/C: BIOL 2250, 2251)
BIOL 3661. Introduction to Marine Biology Laboratory (1) (F,S) (C: BIOL 3660)
BIOL 4504, 4514. Research Problems in Biology (2,2) (WI, WI) (F,S,SS) (P: Consent of instructor)
BIOL 5200, 5201. Invertebrate Zoology (4,0) (F) (P: 6 s.h. in BIOL)
BIOL 5220, 5221. Limnology (4,0) (S) (P: BIOL 2250, 2251; or consent of instructor)
BIOL 5230, 5231. Phycology (4,0) (P: BIOL 1200, 1201)
BIOL 5270. Marine Community Ecology (3) (S) (P: BIOL 2250, 2251; or consent of instructor)
BIOL 5351. Biological Processes and the Chemistry of Natural Water (2) (S) (P: BIOL 2250, 2251; 2 CHEM courses; or consent of instructor)
BIOL 5550, 5551. Ichthyology (4,0) (F)
BIOL 5600, 5601. Fisheries Techniques (3,0) (F,S) (F) (P: BIOL 2250, 2251; or equivalent)
BIOL 5680. Current Topics in Coastal Biology (2) (S) (P: Consent of instructor)
GEOL 1550. Oceanography (4) (S) (GE:SC)
GEOL 5300. Geology of Coastal Processes and Environments (3) (S) (P: GEOL 1550, 4010, 4011; or consent of instructor)

Microbiology:

BIOL 3100, 3101. Basic Laboratory Methods for Biotechnology (3,0) (F,SS) (P: BIOL 2300; CHEM 1160, 1161)
BIOL 2100, 2101. Basic Laboratory Methods for Biotechnology (3,0) (F,SS) (Formerly BIOL 3100/3101) (P: BIOL 1100, 1101, MATH 1065, 1 semester of CHEM with lab).
BIOL 3220, 3221. Microbiology (4,0) (F) (P: BIOL 1200, 1201; 1 organic CHEM course)
BIOL 3310, 3311. Cellular Physiology (4,0) (F,S,SS) (P: 1 organic CHEM or biochemistry course)
BIOL 4220. Microbes and Immunity (3) (S, SS) (P: BIOL 2110, 2111 or 3220, 3221)
BIOL 4504, 4514. Research Problems in Biology (2,2) (WI, WI) (F,S,SS) (P: Consent of instructor)
BIOL 5190. Immunology (3) (F) (P: BIOL 2300, 3220, 3221)
BIOL 5260, 5261. Microbial Ecology (4,0) (P: BIOL 2250, 2251, 3220, 3221; or consent of instructor)
BIOL 5800. Principles of Biochemistry I (3) (F,S) (P: CHEM 2760, 2763, BIOL 3310, 3311) or BIOL 5810. Principles of Biochemistry II (3) (F,S) (P: CHEM 2760, 2763, BIOL 3310, 3311)
BIOL 5821. Principles of Biochemistry Laboratory (1) (F,S) (P/C: BIOL 5800 or 5810)
BIOL 5870. Molecular Genetics (3) (F) (P: BIOL 2300; RP: BIOL 3220, 3221, 5810)
Biology Requirements for Students Participating in MD/7 Initiative

Students pursuing a BS in Biology who are also participating in the MD/7 Program must meet all the specified core requirements for their major and cognate courses of MATH 2121, MATH 2122, CHEM 2750/2753, CHEM 2760/2763, PHYS 1250/1251, and PHYS 1260/1261. Students who complete these courses will also have fulfilled the pre-health concentration. In addition to the core requirements students will also complete 16 hours of Biology electives at the undergraduate level. If the
student is accepted for admission to the Brody School of Medicine under the MD/7 Program, Doctoring I will count as

Internship BIOL 5995 to be repeated once for 2 hours credit, ANAT 7210 will count in lieu of BIOL 5450/5451, Medical Genetics will count in lieu of BIOL 4040 with all other medical school courses during the first year counting as the remaining 20 hours of electives as required for graduation.

BS in Biochemistry

Minimum degree requirement is 126 s.h. of credit as follows:

1. **General education (See Section 4, General Education Requirements for all Baccalaureate Degree Programs), including those listed below**............................................................. 42 s.h.

   CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (GE:SC) (P: Chemistry placement test or passing grade in CHEM 0150; P/C: MATH 1065)

   CHEM 1160, 1161. General Chemistry and Laboratory I (3,1) (F,S,SS) (GE:SC) (P: CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 1083 or 1085)

   MATH 1065. College Algebra (3) (F,S,SS) (GE:MA) (P: Appropriate score on mathematics placement test)

2. **Core**

   .............................................................. 45 s.h.

   **Biology:**

   BIOL 1100, 1101. Principles of Biology and Laboratory I (3,1) (F,S,SS) (GE:SC) (P/C for 1101: BIOL 1100)

   BIOL 1200, 1201. Principles of Biology and Laboratory II (3,1) (F,S,SS) (GE:SC) (P/C for 1201: BIOL 1200)

   BIOL 2300. Principles of Genetics (3) (F,S,SS) (P: 2 BIOL courses)

   BIOL 3310, 3311. Cellular Physiology (4,0) (F,S,SS) (P: Organic CHEM or biochemistry course)

   BIOL 5800, 5810. Principles of Biochemistry I, II (3,3) (P: CHEM 2760, 2763)

   BIOL 5821. Principles of Biochemistry Laboratory I (1) (P/C: BIOL 5800 or 5810)

   **Chemistry:**

   CHEM 2250, 2251. Quantitative and Instrumental Analysis (3,2) (WI, WI) (F,S) (P: CHEM 1160, 1161; one organic CHEM course)

   CHEM 2750. Organic Chemistry I (3) (F,S,SS) (P: CHEM 1160, 1161; C: CHEM 2753)
CHEM 2753. Organic Chemistry Laboratory I (1) (F,S,SS) (C: CHEM 2750)

CHEM 2760. Organic Chemistry II (3) (F,S,SS) (P: CHEM 2750; C: CHEM 2763)

CHEM 2763. Organic Chemistry Laboratory II (1) (F,S,SS) (P: CHEM 2750, 2753; C: CHEM 2760)

CHEM 3950, 3951. Physical Chemistry and Laboratory I (4,1) (WI, WI) (S) (P: PHYS 1261, 2360; MATH 2173; CHEM 2250, 2251)

CHEM 3960, 3961. Physical Chemistry and Laboratory II (4,1) (WI, WI) (F) (P: CHEM 3950, 3951)

3. Cognates .............................................................................................................................................................................. 25-27 s.h.

MATH 1083. Introduction to Functions (3) (F, S,SS) (GE:MA) (P: Consent of dept chair) or MATH 1085. Pre-Calculus Mathematics (5) (F,S,SS) (GE:MA) (P: MATH 1065 with a minimum grade of C)

MATH 2171. Calculus I (4) (F,S,SS) (GE:MA) (P: MATH 1083 or 1085 or 2122 with minimum grade of C)

MATH 2172. Calculus II (4) (F,S,SS) (GE:MA) (P: MATH 2122 with a minimum grade of C or MATH 2171)

MATH 2173. Calculus III (4) (F,S,SS) (GE:MA) (P: MATH 2172)

PHYS 1251, 1261. General Physics Laboratory (1,1) (F,S,SS) (GE:SC) (C for 1251: PHYS 1250 or 2350; C for 1261: 1260 or 2260)

PHYS 2350, 2360. University Physics (4,4) (F,S,SS) (GE:SC) (P: MATH 1085; C: MATH 2121 or 2171)

4. Electives (Choose from the following.) ......................................................................................................................... 6 s.h.

BIOL 3100, 3101. Basic Laboratory Methods for Biotechnology (3,0) (F,SS) (P: BIOL 2300; CHEM 1160, 1161)

BIOL 2100, 2101. Basic Laboratory Methods for Biotechnology (3,0) (F,SS) (Formerly BIOL 3100/3101) (P: BIOL 1100, 1101, MATH 1065, 1 semester of CHEM with lab). BIOL 3220, 3221. Microbiology (4,0) (F) (P: BIOL 1200, 1201; 1 organic CHEM course)

BIOL 5510, 5511. Transmission Electron Microscopy (4) (P: Senior standing as a BIOL major or consent of instructor)

BIOL 5520, 5521. Scanning Electron Microscopy and X-Ray Analysis (2,0) (P: Senior standing as a BIOL major or consent of instructor)

BIOL 5870. Molecular Genetics (3) (P: BIOL 2300; RP: BIOL 3220, 3221, 5810)

BIOL 5900, 5901. Biotechniques and Laboratory (2,3) (P: BIOL 3100, 3101, 5870; consent; RP: BIOL 5810)

BIOL 5900, 5901. Biotechniques and Laboratory (2,3) (P: BIOL 2100, 2101, 5870; consent; RP: BIOL 5810)
MATH 4331. Introduction to Ordinary Differential Equations (3) (F,S) (P: MATH 2173)

**Insert on pp. 199 of 2004 – 2005 catalog:**

**COLLEGE OF EDUCATION**

teaching the biological, physical, and earth sciences. Minimum degree requirement is 128 s.h. of credit as follows:

**1. General education and special requirements for certification (See Section 4, General Education)**

**Requirements for all Baccalaureate Degree programs), including those listed below................. 42 s.h.**

- BIOL 1100, 1101. Principles of Biology and Laboratory I (3,1) (F,S,SS) (GE:SC) (P/C for 1101: BIOL 1100)
- CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (GE:SC) (P: Chemistry placement test or passing grade in CHEM 0150; P/C: MATH 1065)
- MATH 1065. College Algebra (3) (F,S,SS) (GE:MA) (P: Appropriate score on mathematics placement test)
- PSYC 1000. Introductory Psychology (3) (F,S,SS) (GE:SO)
- PSYC 3206. Developmental Psychology (3) (WI*) (F,S,SS) (GE:SO) (P: PSYC 1000 or 1060)
- Choose a history course (GE:SO)
- Choose a literature course (GE:HU)

**2. Common core**

.......................................................................................................................... 35-36 s.h.

- BIOL 1200, 1201. Principles of Biology and Laboratory II (3,1) (F,S,SS) (GE:SC) (P/C for 1201: BIOL 1200)
- CHEM 1160, 1161. General Chemistry and Laboratory I (3,1) (F,S,SS) (GE:SC) (P: CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 1083 or 1085)
- GEOL 1500. Dynamic Earth (3) (F,S,SS) (GE:SC)
- GEOL 1501. Dynamic Earth Laboratory (1) (F,S,SS) (GE:SC) (C: GEOL 1500)
- PHYS 1251, 1261. General Physics Laboratory (1,1) (F,S,SS) (GE:SC) (C for 1251: PHYS 1250 or 2350; C for 1261: PHYS 1260 or 2360)
- SCIE 3350, 3351. Descriptive Astronomy (4,0) (S)
SCIE 3360, 3361. Physical Meteorology (4,0) (S) (P: CHEM 1150; MATH 1085; PHYS 1250, 1260)

SCIE 3602. Investigations in Physical and Earth Science (4) (F,S,SS)

SCIE 3604. Investigations in Life and Environmental Science (4) (F,S,SS)

Choose 5-6 s.h. mathematics from one area as follows:

**Biology and Earth Science:**

MATH 1085. Pre-Calculus Mathematics (5) (F,S,SS) (GE:MA) (P: MATH 1065 with a minimum grade of C)

MATH 2121. Calculus for the Life Sciences I (3) (F,S,SS) (GE:MA) (P: MATH 1065 or 1077 with a minimum grade of C) and MATH 2122. Calculus for the Life Sciences II (3) (F,S,SS) (P: MATH 2121)

**Chemistry and Physics:**

MATH 2121. Calculus for the Life Sciences I (3) (F,S,SS) (GE:MA) (P: MATH 1065 or 1077 with a minimum grade of C)

MATH 2122. Calculus for the Life Sciences II (3) (F,S,SS) (P: MATH 2121)

3. **Teaching area concentration (Choose one from the following.)**

............................................. 20-23 s.h.

**Biology (20 s.h.):**

BIOL 2110, 2111. Fundamentals of Microbiology (4,0) (F,S) (P: 4 s.h. in BIOL; 8 s.h. in CHEM)

BIOL 2250. Ecology (3) (F,S,SS) (P: BIOL 1100, 1101, 1200, 1201)

BIOL 2251. Ecology Laboratory (1) (F,S,SS) (P: BIOL 1100, 1101, 1200, 1201; C: BIOL 2250)

BIOL 2300. Principles of Genetics (3) (F,S,SS) (P: 2 BIOL courses)

**BIOL 3100, 3101. Basic Laboratory Methods for Biotechnology (3,0) (F,SS) (P: BIOL 2300; CHEM 1160, 1161)**

**BIOL 2100, 2101 Basic Laboratory Methods for Biotechnology (3,0) (F,SS) (Formerly BIOL 3100/3101) (P. BIOL 1100,1101, MATH 1065, 1 semester of CHEM with lab).** or BIOL 3520. Biological Evolution (3) (P: BIOL 2300 or consent of instructor)

PHYS 1250, 1260. General Physics (3,3) (F,S,SS) (GE:SC) (P for 1250: MATH 1065 or 1066; P for 1260: PHYS 1250)

**Chemistry (23 s.h.):**

CHEM 2250, 2251. Quantitative and Instrumental Analysis (3,2) (WI) (F,S) (P: CHEM 1160, 1161; 1 organic CHEM course)

CHEM 2750. Organic Chemistry I (3) (F,S,SS) (P: CHEM 1160, 1161; C: CHEM 2753)

CHEM 3450, 3451. Elementary Inorganic Chemistry and Laboratory (3,1) (WI) (S) (P: CHEM 2250, 2251)

CHEM 3850, 3851. Introduction to Physical Chemistry (4,1) (WI) (F) (P: CHEM 1160, 1161; MATH 2122 or 2172; PHYS 1260)
PHYS 1250, 1260. General Physics (3,3) (F,S,SS) (GE:SC) (P for 1250: MATH 1065 or 1066; P for 1260: PHYS 1250)

Earth Science (22 s.h.):

GEOL 1550. Oceanography (4) (S) (GE:SC)
GEOL 1600. Earth and Life Through Time (4) (S) (GE:SC)
GEOL 1700. Environmental Geology (4) (F,S) (GE:SC)
GEOL 3000, 3001. Mineralogy (4,0) (F) (P: A 1000-level GEOL course; P/C: CHEM 1150, 1151)

Insert on pp. 306 – 307 of 2004 – 2005 catalog:

MARKED COPY

SECTION 8: COURSES

BIOL: BIOLOGY

1030. Plants and Human Affairs (3) (F,S) (GE:SC) May not count toward BIOL major or minor. BIOL 1051 may be taken as a lab complement. Biology of plants and their related organisms and importance throughout history.

1050. General Biology (3) (F,S,SS) (GE:SC) May not count toward BIOL major or minor. Molecular basis of biology, bioenergetics, control systems, reproduction and development, genetics, diversity, evolution, communication, and behavior ecosystems.

1051. General Biology Laboratory (1) (F,S,SS) (GE:SC) 1 3-hour lab per week. May not count toward BIOL major or minor. C: BIOL 1030 or 1050. Practical applications of biological principles.

1060. Environmental Biology (4) (F,S,SS) (GE:SC) May not count toward BIOL major or minor. Interrelationships of organisms with each other and with their environment and human factors. Basic ecological problems, principles, and solutions.

1061. Environmental Biology Laboratory (1) (F,S) (GE:SC) 1 3-hour lab or field excursion per week. May not count toward BIOL major or minor. Optional lab or field course offered to provide a more indepth look at habitats.

1080, 1081. General Zoology (5,0) (F) (GE:SC) 4 lectures and 1 3-hour lab per week. Biology of major animal phyla.
Emphasis on phylogeny, morphology, and physiology.


1200, 1201. Principles of Biology and Laboratory II (3,1) (F,S,SS) (GE:SC) 3 lecture and 3 lab hours per week. P/C for 1201: BIOL 1200. Five living kingdoms and diversity that prevails in natural systems. Principles of evolution, ecology, and behavior, particularly in context of diversity.


2100, 2101. Basic Laboratory Methods for Biotechnology (3,0) (F,SS) Formerly BIOL 3100/3101 1 lecture and 4 laboratory hours per week. P: BIOL 1100,1101, MATH 1065, 1 semester of CHEM with lab). Practical basic training in laboratory techniques generally applicable to molecular and cell biology, genetics, biochemistry, microbiology and forensics.

2110, 2111. Fundamentals of Microbiology and Laboratory (3,1) (F,S) 3 lectures and 2 2-hour labs per week. May not count toward BIOL major or minor. P for 2110: BIOL 1050, 1051; or 1100, 1101; or equivalent; 8 s.h. in CHEM. P/C for 2111: BIOL 2110. General study of microorganisms and their importance to humans. Emphasis on fundamental life processes, including a brief introduction to epidemiology and immunology.

2130. Survey of Human Physiology and Anatomy (4) (F,S,SS) (GE:SC) P: BIOL 1050, 1051; or 1100, 1101. Functional anatomy and normal physiology of human organ systems.

2131. Survey of Human Physiology and Anatomy Laboratory (1) (F,S,SS) (GE:SC) 3 lab hours per week. May not count toward BIOL major or minor. P/C: BIOL 2130. Principles and review of anatomy of human organ systems. anatomical and physiological concepts.

2140, 2150. Human Physiology and Anatomy (3,3) May not count toward BIOL major or minor. P: 1 CHEM course; P for 2150: BIOL 2140; C for 2140: BIOL 2141; C for 2150: BIOL

2141, 2151. Human Physiology and Anatomy Laboratory (1,1) 3 lab hours per week. May not count toward BIOL major or minor. P for 2151: BIOL 2141; C for 2141: BIOL 2140; C for 2151: BIOL 2150. Two-semester integrated labs. Application of 306

2250. Ecology (3) (F,S,SS) P: BIOL 1100, 1101, 1200, 1201. Structure and function of ecosystems. Relationships of environmental factors operating in different habitats to floral and faunal composition of each community.

2251. Ecology Laboratory (1) (F,S,SS) 3 lab hours per week. P: BIOL 1100, 1101, 1200, 1201; C: BIOL 2250. Field experiences and lab methods used to determine structure and function of ecosystems.


3070, 3071. Survey of Plants and Fungi (4,0) May receive credit for one of the following sequences: BIOL 1070, 1071; 3070, 3071. P: 3 s.h. of science with a lab. Plants and fungi with emphasis on evolutionary patterns in structure, reproduction, and ecological function.

3100, 3101. Basic Laboratory Methods for Biotechnology (3,0) (F,SS) 1 lecture and 4 lab hours per week. P: BIOL 2300; CHEM 1160, 1161. Practical basic training in lab techniques generally applicable to molecular biology, cell biology, biochemistry genetics, and microbiology.

3220, 3221. Microbiology (4,0) (F) 3 lectures and 2 2-hour labs per week. P: BIOL 1200, 1201; organic CHEM course. Structure, physiology, disease, environmental relationships, and molecular biology of microbes.

3230, 3231. Field Botany (4,0) (F,S,SS) P: 3 s.h. of general BIOL with a lab. Plant identification and interactions of plants with their chemical, physical, and living environments. Emphasis on recognition of common vascular elements of local flora and major plant communities of coastal NC.

3240, 3241. Field Zoology (4,0) (F) P: BIOL 1060 or 2250. Methods and principles in zoological field study. Focus on local NC vertebrate fauna.

3310, 3311. Cellular Physiology (4,0) (F,S,SS) 3 lectures and 1 3-hour lab per week. P: Organic CHEM or BIOC course. Structure and function of cells. Emphasis on physico-chemical aspects. Current status of major problems such as gene function, photosynthesis, contraction, active transport, and nerve cell function.


3400, 3401. Biological Field Studies of the Coastal Plain (3,0) 2 lecture and 3 lab hours per week. P: 2 courses in BIOL or GEOL or consent of instructor. Current status and change initiated by nature and man. Field trips and field projects important.

3520. Biological Evolution (3) (F) P: BIOL 2300 or consent of instructor. Evolution from a biological standpoint. Relationships of evolutionary theory and reciprocal impact on ecology, genetics, diversity, and biogeography. Speciation, selection, and populations.

3550. Biology Honors (1) (WI) (F,S,SS) Conferences with staff as needed. May be repeated once for a maximum of 2 s.h. Student taking this course will normally be expected to take BIOL 4550. P: Faculty invitation. Seminar and research.

3660. Introduction to Marine Biology (3) (F,S,SS) A coastal field trip, at student’s expense, required. P/C: BIOL 2250, 2251. Ocean habitats and marine plants and animals that comprise various marine ecosystems.

3661. Introduction to Marine Biology Laboratory (1) (F,S) 3 lab hours per week. C: BIOL 3660. Exercises examine physical and chemical properties of ocean waters and representative marine organisms.

Insert on pp. 310 of 2004 – 2005 catalog:

5640, 5641. Entomology (4,0) 3 lectures and 1 3-hour lab per week. P: 12 s.h. BIOL. General anatomy, physiology, ecology, and classification of insects.

5680. Current Topics in Coastal Biology (3) P: Consent of instructor. Seminar on environmental issues in coastal biology presented by directed reading, lecture, and discussion.

5730, 5731. Animal Physiological Ecology (4,0) 3 lectures and 1 3-hour lab per week. P: BIOL 2250, 2251; 3310, 3311 or 3320, 3321 or 5800, 5821; or consent of instructor. Physiological adjustments and responses of animals to their environment.

Consideration given to mechanisms involved and to invertebrate, vertebrate, aquatic, and terrestrial animals.
5740, 5741. Behavioral Ecology (4,0) 3 lecture and 2 discussion hours per week. P: BIOL 3520 or 4200, 4201. Animal behavior from an evolutionary perspective. Readings from current scientific literature and weekly discussions.

5750, 5751. Introduction to Regional Field Ecology (2,0) (5750:WI) For science and environmental studies teachers. 20 hours of lecture and 32 hours of field trips. May not count toward MS in BIOL or molecular biology/biotechnology. Major regional ecosystems.

5800. Principles of Biochemistry I (3) 3 lecture hours per week. P: BIOL 3310, 3311; or consent of instructor; CHEM 2760, 2763. Intermediary metabolism, metabolic processes, and metabolic regulation of major groups of compounds in living cells.

5810. Principles of Biochemistry II (3) May be taken before BIOL 5800. P: BIOL 3310, 3311; or consent of instructor; CHEM 2760, 2763. Protein biochemistry. Structure and function of amino acids and proteins, including protein biosynthesis and kinetics. Structures illustrated using computer-modeling techniques.

5821. Principles of Biochemistry Laboratory (1) Required for biochemistry majors; recommended for biology majors. P/C for undergraduate students: BIOL 5800 or 5810. General biochemistry lab designed to complement BIOL 5800, 5810.

5870. Molecular Genetics (3) P: BIOL 2300; RP: BIOL 3220, 3221, 5810, 5821. Genetics of prokaryotic and eukaryotic organisms at molecular level. Structure and function of nucleic acids; replication, recombination, and repair; control of gene expression; and other related topics.

5890. Virology (3) P: BIOL 3100, 3101; or 5870; 3220, 3221. Plant, animal, and bacterial viruses. Emphasis on distinctive features of viruses as related to parasitism, disease, and basic research

5900, 5901. Biotechniques and Laboratory (2,3) 2 1-hour lectures and 2 4-hour labs per week. P: BIOL 3100, 3101, 5870;

5900, 5901. Biotechniques and Laboratory (2,3) 2 1-hour lectures and 2 4-hour labs per week. P: BIOL 2100, 2101, 5870; consent of instructor; RP: BIOL 5810, 5821; C for 5901: BIOL 5900. Theory and practice of modern genetic engineering technology. Topics include DNA purification, electrophoresis, restriction mapping, use of DNA modifying enzymes, basic cloning in plasmid vectors, and strain construction by conjugation and transduction.
Office of Interdisciplinary Health Sciences Education

Insert on p. 392 of 2004 – 2005 catalog:

Printers Copy of the Catalogue Description

**IRHE 2000 Introduction to Rural Health Care Teams (3)**  P: HLTH 1000 or permission of instructor. Provide a foundation of knowledge about rural health care teams; develop knowledge and skills for effective communications with patients and health care professionals; and review health issues in rural environments. May not count toward general education requirements.

**IRHE 2100 Rural Health Immersion (2)**  P/C: IRHE 2000 or permission of instructor. 1 lecture hour per week and 80 hours immersion in rural community sites. Intensive immersion experience with rural health care teams; apply knowledge and skills for effective communications with patients and health care professionals; and review health issues in rural environments.

**IRHE 2500. Service Learning in Interdisciplinary Teams (3) (F, S, SS).**  1 lecture hour per week and 48 hours of service throughout the semester. Active, collaborative, inquiry based learning experiences that meet identified rural community needs.

Catalog Minutes submitted by Cheryl Estes