THE FACULTY SENATE

December 14, 1995

Dr. Ray M. Bowen
President
Texas A&M University

Dear President Bowen:

At its regular meeting held December 11, 1995 the Faculty Senate approved the following curriculum matters and recommends them for your approval.

FS.13.084  **New Graduate Courses:** CVEN 682, EHSD 607, EHSC 683, EPSY 639, HLTH 639, LAND 663, LDEV 671, MATH 684, MATH 696, MGMT 682, MICR 624, OCNG 649, PLAN 610, PLAN 614, PLAN 633, PLAN 649, PLAN 677, SENG 636, SENG 644, SENG 645, SPED 681, SPED 683, SPED 684, SPED 685, and SPED 690.

FS.13.085  **Graduate Course Changes:** EPSY 625, PLAN 672, OCEN 678, PETE 603, PETE 604, PETE 610, EPSY 624, and EPSY 683.

FS.13.086  **New Undergraduate Courses:** ENTO 426, GEOS 410, HLTH 240, KINE 240, KINE 307, LBAR 181, MARB 466, SOCI 329, VAPH 490, VLAM 409, VMID 924, and VTPP 926.

FS.13.087  **Undergraduate Course Withdrawal:** ENTO 403, ENTO 423, POSC 425, and VTPP 923.

FS.13.088  **Undergraduate Course Changes:** BICH 440, ENGL 341, FSTC 201, KINE 322, KINE 425, OCNG 420, OCNG 430, POSC 308, POSC 414, VPAR 487, and VPAT 412.

I enclose for your information a copy of the material sent to Senators on the above items.

OFFICE OF THE PRESIDENT

DEC 20 1995
President Ray M. Bowen

December 14, 1995

Thank you for considering these items. Please inform me of your action on these recommendations.

Sincerely,

Pierce E. Cantrell
Speaker, 1995-96

Enclosure

pc: Dr. Sallie V. Sheppard, Interim Executive Vice President & Provost
Dr. Dan H. Robertson, Chair, Graduate Council
Dr. R. Bruce Simpson, Chair, University Curriculum Committee
Ms. Linda F. Lacey, Director of Academic Support Services

APPROVED

DATE

Ray M. Bowen

Jun 11, 1996
Approved requests for new graduate courses as follows:

**CVEN 682: Environmental Remediation of Contaminated Sites.** (3-0). Credits 3. Aspects of characterization and design of plans for remediation of sites contaminated with hazardous wastes; review of federal and state regulations; risk assessment; remedial technology screening and design of remedial plans. Prerequisite: CVEN 402 or approval of instructor.


**EHRD 683: Practicum in Educational Human Resource Development.** (1-6). Credits 3. Field-Based Practicum in theory and strategies for researching and delivering programs within a variety of educational human resource development settings. May be taken two times. Prerequisite: Approval of advisor.

**EPSY 639: Applied Multivariate Methods.** (3-0). Credits 3. This seminar presents various techniques for applied multivariate modeling of phenomena in educational psychology. Prerequisites: EPSY 637 and 690 or approval of instructor. Enrollment is limited to students in the Department of Educational Psychology and Psychology.

**HLTH 639: Behavioral Foundations of Health Education.** (3-0). Credits 3. Theoretical and historical foundations of health behavior research: emphasis placed on understanding and predicting behavior, as well as facilitating behavior change programs through health education. Prerequisite: None.

**LAND 663: Landscape, Order and Human Meaning.** (3-0). Credits 3. This course examines built space as a cultural text; the approach, based in anthroplogy, cultural geography, human ecology and architectural fields, looks at society in ways that are different from the standard notions of utility and design; field excursions will allow the class to “read” built space in Texas. Prerequisite: Graduate classification.

**LDEV 671: Sustainable Development.** (3-0). Credits 3. This class presents sustainable development from three perspectives, each having to do with rights; the rights of indigenous communities, the rights of nature and the rights of individual well-being as nurtured by sense of place; balancing these ideas with traditional rights of development is the subject of the course. Prerequisites: LDEV 661, LAND 412 or approval of instructor.

**MATH 684: Professional Internship.** (6-0). Credits 1-6. Directed internship in an organization to provide students with professional experience in organization settings appropriate to the student’s career objectives. Variable credit 1 to 6. Prerequisite: Approval of department head.

**MATH 696: Mathematical Communication and Technology.** (3-0). Credits 3. Techniques of oral, written, and electronic communication of mathematics; effective classroom and seminar presentation; TEK, AMS-TEX, and LATEX, hypertext; Internet application; Maple and Mathematica; classroom use of computer graphics. Prerequisite: Approval of instructor.
MGMT 632: Industrial Organization and Strategic Management. (3-0). Credits 3. The course will examine various aspects of market structures in which businesses find themselves. It will also involve examination of the internal structure of firms from an economic and management perspective. Topics such as the takeover market, agency problems, monopoly, oligopoly, and competition will be covered. Prerequisite: Course in intermediate microeconomics.

MICR 624: Fungal Genetics. (3-0). Credits 3. Development of classical and modern genetic approaches in Fungi; genetic approaches to understanding basic biological processes including gene regulation, cell-cell interactions, and cellular organization. Prerequisite: None.

OCNG 649: Estuarine Biogeochemistry. (3-0). Credits 3. Geomorphology; physical oceanography and sedimentation dynamics of estuaries; chemistry of nutrients; trace metals and organic matter; major controls in estuarine productivity and interactions among estuaries, marshes, and coastal waters. Prerequisites: OCNG 620, OCNG 640.

PLAN 610: Structure and Function of Urban Settlements. (3-0). Credits 3. The study of urbanization and how geographic, economic, sociologic and political factors give rise to changes in the structure and functions of cities; the movement of people, products, services, and capital create unique urban patterns of land use and infrastructure with implications for long-term livability and sustainability. Prerequisites: Graduate classification and consent of instructor.

PLAN 614: Planning and Technological Change. (3-0). Credits 3. Examines the general relationship between technology and social change; examine a historical development of the technological roots of change; focus on the futurists and the analysis of the social impact of technology; focus on planning in conjunction with technological development. Prerequisite: None.

PLAN 633: Planning for Healthy Communities. (3-0). Credits 3. An introduction to issues involved in planning healthy cities/communities; by exploring experiences initiated by Europe's World Health Organization and subsequent international experiences, attention is given to the healthy cities/communities movement in the US and the case studies of programs at local, state and national levels. Prerequisites: PLAN 630, PLAN 631 or Approval of instructor.

PLAN 649: Organizational and Community Response to Crises and Disasters. (3-0). Credits 3. An introduction to the study of organized and community planning and response to natural and technological disasters and social crisis; focus upon emergency preparedness and response; practical issues, planning for emergency management, and existing research literature of basic disaster at the organization and community levels. Prerequisite: Graduate classification.

PLAN 677: Transportation Network Equilibrium. (3-0). Credits 3. This course introduces basic concepts and techniques and predicting equilibrium demand and performance patterns and transportation network within a transportation system analysis; framework using mathematically oriented formulations and solution algorithms; computer application of real world and example networks are also included. Prerequisites: PLAN 672, PLAN 674 recommended, or Graduate classification or consent of instructor.
SENG 636: Biological Control System Analysis. (3-0) Credits 3. Current advances in practical biomechanics and ergonomics in industry in combating musculoskeletal injury and illness, demonstrations of the positive effects of redesign of job requirements, hand tools, chairs, manual material handling tasks, machine controls and workspace arrangements. Prerequisite: INEN 430 or INEN 630. Crosslisting: SENG 636 will be cross-listed with INEN 636.

SENG 644: Worker Response to Physiological and Environmental Stress in Manufacturing. (3-0). Credits 3. Function of the human body in a work environment in response to physical exertion and environmental stress in manufacturing; anatomy, anthropometry, strength, respiration, neurophysiology, electrophysiology, cardiovascular muscle physiology, and worker capacity evaluation (back and carpal tunnel syndrome). Prerequisite: INEN 430 or INEN 630. Crosslisting: SENG 644 will be cross-listed with INEN 644.

SENG 645: Occupational Biomechanics. (3-0). Credits 3. Fundamental topics upon which models are constructed; variety of models appropriate in occupational settings; bioinstrumentation theory and practice for model evaluation; experience in applying the models and associated tools in the occupational setting. Prerequisites: SENG 644 or INEN 644 or equivalent.

SPED 681: Seminar. (1-0). Credits 1. Reports and discussions of current research, contemporary trends and professional issues in Special Education. Credit 1. May be repeated for credit. Prerequisite: Approval of instructor.

SPED 683: Field Practicum. (15-0). Credits 15. Faculty supervised experience in professional practica settings in Special Education. Credit 1 to 15 each semester. May be repeated up to 15 hours. Prerequisite: Approval of instructor.

SPED 684: Professional Internship. (6-0). Credits 1 to 6. Supervised experience in professional functions appropriate to career goals in special education. Credit 1 to 6 each semester. Prerequisite: Approval of instructor.

SPED 685: Problems. (6-0). Credits 1 to 6. Directed individual study of selected problems in special education. Credit 1-6 each semester. Prerequisite: Approval of instructor.

SPED 690: Theory of Special Education. (3-0). Credits 3. Theory and design of research problems in special education; communication of research proposals and results; evaluation of current research and literature. May be taken 3 times. Prerequisite: Approval of instructor.
II. Approved requests for graduate course changes as follows:

Course description, title and prerequisite change

EPSY 625
from: Test Construction. Planning, construction, analysis and evaluation of written and performance tests; test item analysis, reliability studies and validity studies; development of test norms, score transformations and equivalent forms of tests. Prerequisites: EPSY 439 and 622 or equivalents.
to: Advanced Behavioral Measurement. Psychometric theory, planning, construction, analysis, and evaluation of written and performance tests; item analysis, norms, reliability, and validity studies; factor analysis of tests. Prerequisite: EPSY 637.

Course description, title, contact hours, credit and prerequisite change

PLAN 672
from: Urban Transportation Study. (3-3). Credits 4. Procedures and techniques of traditional urban transportation studies; study design, data collection and processing, trip generation, trip distribution, traffic assignment and mode choice; data reliability; sketch planning and abbreviated study techniques. Cross-listed with CVEN 672.
to: Urban Transportation Planning. (3-0). Credits 3. Characteristics of urban transportation systems, trends in urban mobility; the urban transportation modeling process, study design data collection, trip generation, trip distribution, mode choice and traffic assignment; use and interpretation of modeling results; alternatives analysis; intermodal transportation issues; inter-city transportation, the transportation life cycle.

Crosslisting change

OCEN 678
from: Crosslisted with CVEN 678,
to: No crosslisting.

Contact hours and credit change

PETE 603, PETE 604, and PETE 610
from: (4-0). Credits 4
to: (3-0). Credits 3
Course description change

EPSY 624

from: Major theories and research findings regarding the creative thinking process; psychometric assessment of creative thinking abilities and methods for increasing creative behavior.

to: Development of personal creativity across fields of endeavor; analysis of creative potential, including psychometric assessment; experience of methods for stimulating creative processing and productivity.

EPSY 683

from: Supervised experience in professional employment settings in educational psychology. Wide range of practical experiences and activities as listed below that are closely supervised by departmental faculty. Repeatable to fifteen hours total. Prerequisite: Approval of instructor. a-Special Education b-Educational Assessment c-Instructional Psychology d-Applied Research e-Gifted and Talented Education.

to: Supervised experience in professional employment settings in educational psychology. Wide range of practical experiences and activities as listed below that are closely supervised by departmental faculty. Repeatable to fifteen hours total. Prerequisite: Approval of instructor. a-Special Education b-Educational Assessment c-Instructional Psychology d-Applied Research e-Educating the Gifted and Talented.
Report of the University Curriculum Committee
November 10, 1995

The University Curriculum Committee recommends approval of the following:

1. New Courses

Biology, disease relationships, economic importance, and control of insects and other
arthropods affecting human life in urban environment; identification of arthropods of
major urban and public health importance augmented with special presentations and
demonstrations on urban and public health pest problems. Prerequisites: ENTO 201 or
equivalent, or approval of instructor.

Geosciences 410. Global Change. (3-0). Credit 3. The interaction of the earth,
atmosphere, oceans, cryosphere and life, including the impact of human society on the
environment and climate; global change modeling; politics, policy and decision making;
and personal awareness. Prerequisite: Junior or senior classification.

Application of current technology in the areas of health and kinesiology; fundamentals of
computers and their use; application of commercial software to health and kinesiology
settings; use of computer networks for communications and research. Prerequisites:
Health or kinesiology major or approval of instructor. Cross-listed with KINE 240.

Application of current technology in the areas of health and kinesiology; fundamentals of
computers and their use; application of commercial software to health and kinesiology
settings; use of computer networks for communications and research. Prerequisites:
Health or kinesiology major or approval of instructor. Cross-listed with HLTH 240.

characteristics and contemporary issues associated with motor behavior across the
lifespan. Prerequisites: PSYC 323 or PSYC 307 or EPSY 320.

Liberal Arts 181. Freshman Honors Seminar in the Liberal Arts. (1-0). Credit 1.
Freshman seminar on interdisciplinary topics of interest in the humanities and social
sciences with an introduction to honors study in the liberal arts. Must be taken on a
satisfactory/unsatisfactory basis.

Marine Biology 466. Evolutionary Biology. (3-0). Credit 3. Evidence for evolution,
including the abiotic origin(s) of life; examination of the concepts for and mechanisms
through which microevolution (genes to individuals) and macroevolution (species
interactions, biological diversity, and extinction) take place; discussion of human
evolution. Prerequisites: BIOL 113 and 114; MARB 301 or approval of instructor.
Sociology 329. Pacific Rim Business Behavior. (3-0). Credit 3. Theoretical models of Asian cultures and practical protocol/etiquette related to business and work in China, Thailand, South Korea, Japan, Australia, and other Pacific Rim nations; discussions of national character, managerial behavior and values. Prerequisite: Junior classification.

Veterinary Anatomy and Public Health 490. Biomedical Research. (2-0). Credit 2. Research theory and methodology for undergraduates to prepare for graduate studies in biomedical science. Prerequisite: Junior classification or approval of instructor.


Veterinary Medicine Interdisciplinary 924. Radiology. (2-2). Credit 3. Diagnostic veterinary radiology. Physical properties and production of ionizing radiation, roentgenographic and darkroom procedures, hazards, and protection from excess radiation, uses of radiation as a therapeutic agent. Prerequisite: Enrollment in the second year of profession curriculum.

Veterinary Physiology and Pharmacology 926. Pharmacology/Toxicology III. (4-2). Credit. Management and treatment of toxicoses, antidotal pharmacology, toxic plants, mycotoxins and mycotoxicoses, chemical toxicants, metals, euthanasia. Prerequisite: Enrollment in the second year of professional curriculum.

2. Courses to be Withdrawn

Entomology 403. Urban Entomology.

Entomology 423. Medical Entomology.

Poultry Science 425. Environmental Physiology.

Veterinary Physiology and Pharmacology 923. Physiology III.
3. Changes in Courses

BICH 440. Biochemistry I.

PREREQUISITES
from: Five hours of organic chemistry; CHEM 336 preferred
to: CHEM 228 or approval of instructor

ENGL 341. Advanced Composition.

COURSE NUMBER
from: ENGL 341
to: ENGL 241

PREREQUISITES
from: 3 credits of literature at 200 level or above.
to: ENGL 104.

DESCRIPTION
from: Pattern and style in effective prose through analysis and writing
of expository, descriptive and argumentative essays of length and
maturity expected of junior students; developing personal writing
techniques suited to diverse fields of specialization.
to: Pattern and style in effective prose through analysis and writing
of expository, descriptive and argumentative essays of length and
sophistication; developing personal writing techniques suited to
diverse fields of specialization.

FSTC 201. Food Sciences.

CONTACT HOURS
from: (2-0) Credit 2
to: (3-0) Credit 3
KINE 322. Theme Development in Elementary Kinesiology.

TITLE
from: Theme Development in Elementary Kinesiology.
to: Middle School Kinesiology.

CONTACT HOURS
from: (2-2) Credit 2
to: (2-2) Credit 3

PREREQUISITE
from: KINE 315
to: KINE 307

DESCRIPTION
from: Development and application of movement themes as the process for presenting fitness and motor skill concepts in the elementary school curriculum.
to: Developmental characteristics; curriculum planning, teaching goals and strategies; computer application; intramural programming in Physical Education for Middle School aged child; field based practicum in a local middle school included.

KINE 425. Tests and Measurements.

CONTACT HOURS
from: (2-2) Credit 3
to: (3-0) Credit 3

DESCRIPTION
from: Use, interpretation, evaluation and administration of existing tests in kinesiology; application of elementary statistical procedures.
to: Use, interpretation and evaluation of existing tests in kinesiology; application of elementary statistical procedures.

OCNG 420. Introduction to Biological Oceanography.

CONTACT HOURS
from: (2-0) Credit 2
to: (3-0) Credit 3

OCNG 430. Introduction to Geological Oceanography.

CONTACT HOURS
from: (2-0) Credit 2
to: (3-0) Credit 3
POSC 308. Avian Biology and Embryology.

TITLE
from: Avian Biology and Embryology.
to: Avian Anatomy and Physiology.

PREREQUISITES
from: None
to: BIOL 113; BIOL 123; POSC 201 (courses currently part of POSC curriculum)

DESCRIPTION
from: Anatomy and physiology of the bird, especially related to reproduction. Influences of genetic, environmental and behavioral factors on embryonic development; effects of diet, drugs and pesticides. Practice involves artificial incubation and use of bird eggs as laboratory models for biomedical research.

to: Anatomy and physiology of the major body systems of the bird, including the cardiovascular, gastrointestinal, respiratory, endocrine and reproductive systems; influence of the environment on bird physiology, including effects of stress. Laboratory exercises include dissection and microscopic analysis of the major body system and assessment of environmental conditions.

POSC 414. Avian Genetics and Biometrics.

TITLE
from: Avian Genetics and Biometrics.
to: Avian Genetics and Breeding.

PREREQUISITES
from: None
to: GENE 310 (already required for POSC students)

DESCRIPTION
from: Basic concepts of avian genetics and breeding principles. Inheritance of qualitative and quantitative traits, mating systems analysis, gene mapping, methods of developing autosex stocks and statistical analysis of breeding results.

to: Basic concepts of avian genetics and breeding principles, inheritance of economically important qualitative and quantitative traits; statistical analysis of breeding results; application of molecular genetics, mating systems analyses, breeder management; and incubation of hatching eggs.
VPAR 487. Parasitology.

PREREQUISITE
from: Senior classification
   to: BIOL 114 or ZOOL 107 and junior classification or approval of instructor

DESCRIPTION
from: Important helminth parasites. Life cycles, pathogenicity and economic and public health aspects; suggested methods for control. Open to agricultural students and biomedical science students.
   to: Introduction to helminth and protozoan parasites of medical and veterinary importance. Topics include life cycles, morphology, taxonomic classification, economic and public health aspects and current topics in parasitic diseases.

VPAT 412. Techniques of Clinical Pathology.

CONTACT HOURS
from: (2-6) Credit 4
   to: (3-3) Credit 4

PREREQUISITES
from: CHEM 228, 238; senior classification in biomedical science
   to: CHEM 228, 238; VTPP 423; senior classification in biomedical science.

DESCRIPTION
from: Theory and practice of techniques of hematohogy and clinical chemistry which are applicable in the diagnosis and study of disease.
   to: Theory and pathophysiologic principles underlying laboratory evaluation of disease states. The principles of analytical methods with applications in the contemporary biomedical laboratory are considered, using selected hematohogy and clinical chemistry techniques as examples.
MEMORANDUM

TO: Executive Committee, Faculty Senate
FROM: R. Bruce Simpson, Chair, University Curriculum Committee
SUBJECT: Marine Biology 466

Marine Biology 466 was remanded to the University Curriculum Committee following the October Faculty Senate meeting. The objections raised by Senator Cassone were: 1) that there was no support for this course in the Biology Department, 2) that the course did not have sufficient prerequisites, i.e. Genetics.

The University Curriculum Committee is returning the course with no changes. Please note that: 1) there is a letter of support from the Biology Department which was present in the packet for the October meeting, 2) the prerequisites for MARB 466 do include Genetics and, in fact, appear to be more rigorous than Biology 466. I am enclosing page copies from the TAMU College Station and TAMU Galveston catalogues to substantiate this statement.
422 Course Descriptions / Botany

430. Principles of Microscopy. (3-3). Credit 4, II. Theory and principles of basic light and electron microscopy; instruction on specimen preparation and use of optical contrast methods using phase contrast, polarizing light, and differential interference contrast optics; still and video photomicroscopy and computer-based image processing (e.g., fluorescence ratio imaging); interdisciplinary approach. Prerequisite: Junior classification or approval of instructor.

439. Growth of Biological Thought. (3-0). Credit 3, I. Development of biological thought from the ancient Greeks to the present. Prerequisite: 8 hours of biological science of approval of instructor.

440. Marine Biology. (3-3). Credit 4, II, S. Introduction to biology of common organisms inhabiting bays, beaches and near-shore oceanic waters with special reference to Gulf of Mexico biota. Lectures, laboratory studies and field trips will emphasize classification, distribution, history, ecology, physiology, mutualism, predation, major community types and economic aspects of marine organisms. Prerequisites: BIOL 113, 116, 123, 124 or approval of instructor.

459. Aquatic Biology. (2-3). Credit 3, II. The collection, preservation and recognition of freshwater aquatic organisms other than the vertebrates; investigation of those aspects of their biology which are important in their adaptation to aquatic life. Prerequisite: 6 hours of biological science or approval of instructor.

466. Principles of Evolution. (3-0). Credit 3, I, II. Evolutionary patterns, mechanisms and processes at the organismal, chromosomal and molecular levels; modes of adaptation and the behavior of genes in populations. Prerequisite: 6 hours of biological science or approval of instructor.

481. Seminars in Biology. (1-0). Credit 1, I, II, S. Recent advances. Restricted to senior undergraduate majors in biology, microbiology, botany or zoology.

485. Biological Problems. Credit 1 or more. I, II, S. Problems in various phases of plant, animal and bacteriological science. Prerequisites: Junior classification; approval of ranking professor in field chosen.

489. Special Topics in ... Credit 1 to 4, I, II. Selected topics in an identified area of biology (may be repeated once for credit).

Botany (BOTN)

101. Botany. (3-3). Credit 4, I, II. Structure, physiology and development of plants; emphasis on seed plants. (Not open to students who have taken BIOL 113 and 114.)

201. Taxonomy of Flowering Plants. (2-3). Credit 3, I, II. Use of keys and identification of flowering plants, family characteristics and relationships and other applied phases of plant science. Prerequisite: BOTN 101 or BIOL 113, 114 or equivalent.


328. Plants and People. (2-3). Credit 3. Development and uses of principal economically important plants of world; plants and plant parts used in production of important commodities; vascular plants. Prerequisite: BOTN 101 or BIOL 113 or 114 or approval of instructor.

453. Plant Anatomy. (3-0). Credit 4, I. Anatomy of vegetative and reproductive organs of plants; development of tissue types. Prerequisites: BOTN 101 or BIOL 113 and 114 and junior classification.

489. Special Topics in ... Credit 1 to 4, I, II. Selected topics in an identified area of botany. May be repeated once for credit.
301. GENETICS. (3-3). Credit 4. Fundamental principles of genetics, physical basis of Mendelian inheritance, expression and interaction of genes, linkage, sex linkage, biochemical nature of genetic material and mutation. Prerequisites: MARS 360; CHEM 227, 228, 237 and 238; curriculum sophomore or approval of instructor.

305. USE OF SAS IN MARINE BIOLOGY. (3-0). Credit 3. Students learn to put research data into a SAS data set, analyze and manipulate the data to make statistical determinations and to present data. Statistical analyses include analysis of variance, regression, correlation, T-tests and other methods. Prerequisites: Curriculum sophomore or approval of instructor.

310. INTRODUCTION TO CELL BIOLOGY. (3-3). Credit 4. Cellular structure/function; procaryotic vs. eucaryotic cells. Examination of cellular membranes and membrane transport. Analysis of DNA replication, transcription, and protein translation (an extension of their treatment in MARR 301). Introduction to the components and genetics of immunology. Cell Biology should precede or be concurrent with enrollment in MARR 301. Prerequisites: BIOL 114, CHEM 228, MARR 301, MARS 360, curriculum junior or approval of instructor.

311. ICYTHIOLOGY. (3-3). Credit 4. Freshwater and marine fishes. Subject will be mainly systematic, but evolution, ecology, life history and economics of more important species will be treated. Prerequisites: BIOL 114, 124, curriculum sophomore or approval of instructor.

312. FIELD ICYTHIOLOGY. (3-3). Credit 4. Field and laboratory studies on identification and ecology of freshwater and marine fishes of Texas. Field trips required. Prerequisite: MARR 311, curriculum sophomore or approval of instructor.

315. NATURAL HISTORY OF VERTEBRATES. (3-3). Credit 4. Natural history of fishes, amphibians, reptiles, birds and mammals, with emphasis on coastal Texas vertebrates. Prerequisites: BIOL 114, 124, curriculum sophomore or approval of instructor.

320. MARINE FOOD CHAINS. (2-3). Credit 3. Examination of basic food chain concepts, including ecosystem roles, trophic levels and structure, energy and energy flows, and biogeochemical cycles. Methods of marine food chain analysis are considered in detail as well as exemplary marine food chain studies reported in the literature. Prerequisites: BIOL 114, 124; curriculum junior or approval of instructor.

325. BIO_SPELEOLOGY. (3-3). Credit 4. A field-oriented introduction to the biology of aquatic and terrestrial cave organisms with discussions on the origin of caves, cave environment, cave fauna and evolution. Field trips required. Prerequisites: BIOL 114, CHEM 101, GEO 104 or approval of instructor.

330. PHYSIOLOGICAL ECOLOGY. (3-0). Credit 3. Examination of how ecological pressures dictate individual and interorganismal physiological processes that lead to individual and community adaptation. Discussion of the physiological interrelationships between members of an ecological community. Attention will be directed toward physiological systems of plants and animals. Prerequisites: BIOL 113, 114, 123, 124 or approval of instructor.

76—CATALOG 118
MEMORANDUM

16 May 1995

TO: Dr. Donald Harper

FROM: Dr. C. L. Nessier
Associate Head of Biology

SUBJECT: MARB 466; Evolutionary Biology

This memorandum is to inform you that the Department of Biology supports your efforts to develop a new course entitled MARB 466; Evolutionary Biology. Dr. Gilbert L. Schroeter who teaches a similar course on the College Station campus has also evaluated your proposed course and concurs that there is no reason that you should not offer this course.