THE FACULTY SENATE

July 15, 1996

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

Dear President Bowen:

At its regular meeting held July 8, 1996 the Faculty Senate approved the following curriculum matters and recommends them for your approval.

**New Graduate Courses:** ANSC 626, CHEN 655, ECMT 679, GENE 626, GEOL 688, OCNG 615, OCNG 616, PSYC 670, and SENG 655.

**Graduate Course Changes:** PLPA 620.

**New Undergraduate Courses:** BANA 430.

**Undergraduate Course Withdrawals:** KINE 386 and KINE 401.

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

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

Sincerely,

[Signature]

Steven M. Oberhelman
Speaker, 1996-97

Enclosure

pc: Dr. Ronald G. Douglas, 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

8/19/96
Approved requests for new graduate courses as follows:

**ANSC 626: Analyses of Gene Expression. (0-3). Credits 1.** Proficiency in handling DNA and RNA gained during exercises used routinely in analyses of gene expression; RNA preparation and analysis on Northern blots; in vitro transcription and polyacrylamide gel analysis of nucleic acids; sub-cloning and mRNA quantitation using polymerase chain reaction. Crosslisted with GENE 626. Prerequisites: BICH/GENE 450 or instructor approval; radiation safety training.

**CHEN 655: Process Safety Engineering. (3-0). Credits 3.** Applications of engineering principles to process hazards analysis including source and dispersion modeling, emergency relief systems, fire and explosion prevention and mitigation, hazard identification, risk assessment, process safety management, etc. Crosslisted with SENG 655. Prerequisite: Approval of instructor.

**ECMT 679: Econometrics V. (3-0). Credits 3.** Advanced topics in time series econometrics, including ARMA models, unit roots, and cointegration. Prerequisite: ECMT 677.

**GENE 626: Analyses of Gene Expression. (0-3). Credits 1.** Proficiency in handling DNA and RNA gained during exercises used routinely in analyses of gene expression; RNA preparation and analysis on Northern blots; in vitro transcription and polyacrylamide gel analysis of nucleic acids; sub-cloning and mRNA quantitation using polymerase chain reaction. Crosslisted with ANSC 626. Prerequisites: BICH/GENE 450 or instructor approval; radiation safety training.

**GEOL 668: Clastic Sedimentology and Sedimentary Petrology. (3-3). Credits 4.** Detailed analyses of clastic sedimentary rocks; relationships of facies and depositional environments with emphasis on continental, coastal and shallow shelf clastic sediments: petrography and diagenesis of modern and ancient clastic sediments. Prerequisites: Optical Mineralogy course and Sedimentology (undergraduate); Graduate Classification.

**OCNG 615: Numerical Modeling of Ocean Circulation I. (3-2). Credits 4.** Mathematical theory and numerical technique of model development for ocean circulation; concepts of numerical consistency and stability; Lax equivalence theorem; commonly used finite difference schemes in ocean modeling; finite element and spectral methods as alternative means of discretisation; positivity and CFT method; relaxation and direct methods for solving elliptic equations. Prerequisite: OCNG 608.

**OCNG 616: Numerical Modeling of Ocean Circulation II. (3-2). Credits 4.** Quasigeostrophic ocean circulation models; Arakawa’s energy and enstrophy conserving scheme; spectral barotropic vorticity model on sphere; shallow water primitive equation models; geostrophic adjustment on different numerical grids; boundary conditions in numerical models; introduction to ocean general circulation models; mixed models and sub-gridscale parameterization; oceanic data assimilation. Prerequisite: OCNG 615.
PSYC 670: Professional Seminar in Social Psychology. (1-2). Credits 2. This graduate-level course will survey recent theoretical, methodological, and empirical developments in social psychology. Topics will be different each semester, but will include theory and research on attitudes and persuasion; social cognition; interpersonal relationships; group processes; social development; and personality and social behavior. The course may be taken for credit up to 8 times. Prerequisite: Enrollment in the Psychology Ph.D. program.

SENG 655: Process Safety Engineering. (3-0). Credits 3. Applications of engineering principles to process hazards analysis including source and dispersion modeling, emergency relief systems, fire and explosion prevention and mitigation, hazard identification, risk assessment, process safety management, etc. Crosslisted with CHEN 655. Prerequisite: Approval of instructor.

II. Approved requests for graduate course changes as follows:

Course description and title change

PLPA 620


to: Plant Virology. An overview of plant virology with an emphasis on the molecular biology of host-virus interactions; topics will include virus replication, gene expression, movement, symptoms, transmission, and control, current literature and techniques important to virology will be presented.
Report of the University Curriculum Committee
June 14, 1996

The University Curriculum Committee recommends approval of the following:

1. **New Course**
   
   **Business Analysis & Research 430. Advanced Systems Analysis and Design.** (3-0). Credit 3. Analysis, design, and construction of business information systems using advanced systems development tools; fundamentals of object oriented analysis and design; principles of client/server computing, event-driven programming, GUI design, and project management. Prerequisite: BANA 428.

2. **Courses to be Withdrawn**

   **Kinesiology 386. Field Experiences in Children’s Movement Programs.**

   **Kinesiology 401. Pre-Student Teaching Field Experiences.**