TTU Curriculum Committee

Tennessee Technological University

The University Curriculum Committee met Thursday, November 8 at 3:00 p.m. in the Deans Conference Room, Derryberry Hall.

Members Present
Dr. Jack Armistead
Dr. Curtis Armstrong
Dr. Rita Barnes
Dr. Jeff Boles
Dr. Dan Combs
Dr. Edith Duvier
Dr. Kurt Eisen
Dr. David Elizandro
Dr. Susan Elkins
Dr. Wade Faw
Dr. Robert Fesler
Ms. Julie Galloway
Ms. Yvonne Gribble
Dr. Mike Harrison
Ms. Kristina Hortert
Dr. Steve Isbell
Dr. Pat Jordan

Dr. Homer Kemp
Mr. Ted LaBar
Dr. Marketta Laurila
Dr. Roy Loutzenheiser
Ms. Beth Mannle
Dr. Allan Mills
Dr. Francis Otuonye
Dr. Larry Peach
Dr. James Raymondo
Dr. Stephen Robinson
Dr. Paul Semmes
Ms. Bethany Smith
Dr. Matt Smith
Dr. Barry Stein
Dr. Doug Talbert
Mr. Janet Whiteaker
Ms. Jerri Winningham

Members Absent
Dr. Pedro Arce
Dr. Pat Bagley
Dr. Sue Bailey
Ms. Amy Blaylock
Ms. Nicole Bostic
Mr. Homer Britton
Mr. Ward Doubet

Mr. Myron Douglas
Dr. Ahmed Elsawy
Dr. Sheila Green
Dr. Bobby Hodum
Dr. Darrell Hoy
Dr. Mark Stephens

Official Representatives
MAJ Ron Pepin for LTC Dunham
Ms. Susan Lafever for Ms. Nipp-Kientz
Dr. Charles Carnal for Dr. Parke

Dr. Kent Dollar for Dr. Roberts

Guests
Ms. Denise Hensley
Dr. Sandy H. Smith
SUMMARY OF PROCEEDINGS

I. Approval of agenda as revised
II. Approval of September 19 minutes
III. Approval of course additions from the Department of Counseling and Psychology
IV. Approval of course changes from the Department of Counseling and Psychology
V. Approval of course addition and deletion from the Department of Accounting
VI. Non-substantive change from the Department of Sociology and Political Science
VII. Approval of curriculum change from the Department Sociology and Political Science
VIII. Approval of course additions and curriculum changes from the Department of Decision Sciences and Management
IX. Approval of course additions and curriculum changes from the Department of Computer Science
X. Approval of course and curriculum changes from the Department of Electrical and Computer Engineering
XI. Approval of curriculum changes from the Department of Electrical and Computer Engineering
XII. Approval of course addition and course changes from the Department of Industrial and Systems Engineering
XIII. Approval of course addition from the Department of Basic Engineering

PROCEEDINGS

Approval of Agenda as Revised

Dr. Mills requested that item #10 be removed from agenda.

Motion. Dr. Robinson moved to approve the agenda as revised. The motion was seconded by Dr. Combs and carried.

Approval of minutes

Motion. Dr. Faw moved to approve the September 19 minutes as submitted. The motion was seconded by Dr. Talbert and carried.

Approval of Course Additions from the Department of Counseling and Psychology

In a memorandum dated August 28, 2007, approval was requested for the following:

Course Additions: PSY 4903 (5903). Special Topics. Credit 3. Prerequisite:
Junior standing or consent of instructor. Concentration on a special topic in psychology. Course may be repeated if topic is different. Students enrolled in the 5000 level course will be required to complete additional work as stated in the syllabus.

PSY 4913 (5913). Special Topics. Credit 3. Prerequisite: Junior standing or consent of instructor. Concentration on a special topic in psychology. Course may be repeated if topic is different. Students enrolled in the 5000 level course will be required to complete additional work as stated in the syllabus.

**Motion.** Dr. Stein moved to approve the additions effective Spring 2008. The motion was seconded by Dr. Semmes and carried.

**Approval of Course Changes from the Department of Counseling and Psychology**

In a memorandum dated August 28, 2007, approval was requested for the following:

**Course Changes:** From: PSY 3140. Experimental Social Psychology. Lec. 2. Lab. 2. Credit 3. Prerequisite: PSY 2010. Experimental testing of theories and models; experimental social designs and problems; assigned and original laboratory projects.

To: PSY 3140. Experimental Social Psychology. Lec. 2. Lab. 2. Credit 3. Prerequisite: PSY 3110 or consent of instructor. Experimental testing of theories and models; experimental social designs and problems; assigned and original laboratory projects. From: PSY 4140 (5140). Health Psychology. Lec. 2. Lab. 2. Credit 3. Prerequisite: Minimum of "C" in PSY 2010 or consent of instructor. Biopsychosocial approach to examining how stress, personality and lifestyle are related to physical health. Students will experientially explore a variety of coping strategies and relaxation techniques geared toward self-assessment and understanding.

To: PSY 4140 (5140). Health Psychology. Lec. 2. Lab. 2. Credit 3. Prerequisite: PSY 3110 or consent of instructor. Biopsychosocial approach to examining how stress, personality and lifestyle are related to physical health. Students will experientially explore a variety of coping strategies and relaxation techniques geared toward self-assessment and understanding. Students enrolled in the 5000 level will be required to complete additional work as stated in the syllabus.

**Motion.** Dr. Stein moved to approve the changes effective Spring 2008. The motion was seconded by Mr. LaBar and carried.

**Approval of Course Addition and Deletion from the Department of**
**Accounting**

In a memorandum dated September 12, 2007, approval was requested for the following:

**Course Addition:** ACCT 4600. Forensic Accounting and Fraud Auditing. Lec. 3. Credit 3. Prerequisite: Junior standing in the Accounting Major. Exposure to applicable authoritative literature, as well as to tools and methods used by modern forensic accountants and auditors to identify accounting and financial statement frauds.

**Course Deletion:** ACCT 4650 E-Business, Risk and Controls. Lec. 3. Credit 3.

**Motion.** Dr. Felser moved to approve the addition and deletion effective immediately. The motion was seconded by Dr. Armstrong and carried.

**Non-substantive Change from the Department of Sociology and Political Science**

In a memorandum dated October 6, 2007, the following was submitted for informational purposes only:

**Revision in Sociology Major, Criminal Justice Concentration**

Move PHIL 1030 from the freshman year to the sophomore year.

Move ART or MUSIC 1030 from the sophomore year to the freshman year.

Effective: 2008 catalog

**Approval of Curriculum Change and Addition from the Department of Sociology and Political Science**

In a memorandum dated September 9, 2007, approval was requested for the following:

**Curriculum Change:** Delete footnoted requirement that freshman year foreign language hours (6) be "six hours of the same language in a sequence."

**Curriculum Addition:** Add footnote to the 6 hours of FL required in the freshman year: "Six hours of foreign language in a sequence or three hours FL and three hours of culture and people." This is a six hour departmental requirement above and beyond Humanities courses, and students may not count Culture and People courses for both the departmental requirement and the Humanities hours.
**Motion.** Dr. Raymondo moved to the change and addition effective Fall 2007. The motion was seconded by Dr. Talbert.

Dr. Laurila stated that with the TBR and TTU goals to internationalize she disagreed with the motion and could not support it. She stated that foreign language study is an integral part of internationalization.

After some discussion a hand vote was taken with 20 votes in favor and 11 against. The motion carried.

**Approval of Course Additions and Curriculum Changes from the Department of Decision Sciences and Management**

In a memorandum dated October 10, 2007, approval was requested for the following:

**Course Additions:** DS 3870. Business Web Applications Development. Lec. 3. Credit 3. Prerequisite: DS 3850. Develop Internet-based database applications for business.

DS 4550. Information Systems Development Practicum. Lec. 3. Credit 3. Prerequisites: DS 3870, DS 4250, DS 4330. Students develop their knowledge and skills in planning, analyzing, designing, and implementing real-world information systems.

**Curriculum Changes for BUIN Concentration in Business Management**

Add DS 3870 Business Web Applications Development to junior year.  
Add DS 4550 Information Systems Development Practicum to senior year.  
Delete DS 3830 COBOL Programming for Business.  
Delete BMGT 3630 Human Resource Management

**Course Change**


To: DS 3850. Business Applications Development.  Lec. 3. Credit 3. Prerequisite: DS 2810. Introduction to software development of business oriented applications including control structures, memory structures, and database-oriented applications.

**Motion.** Dr. Armstrong moved to approve the additions and changes effective Fall 2008. The motion was seconded by Ms. Galloway.
Dr. Armstrong made a friendly amendment to his motion under "Curriculum Changes" to delete from the curriculum only (NOT from catalog).

The amendment was accepted and the motion carried.

**Approval of Course Additions and Curriculum Changes from the Department of Computer Science**

In a memorandum dated October 18, 2007, approval was requested for the following:

**Course Additions:**

CSC 2100. Introduction to Problem Solving & Computer Programming. Lec. 3. Credit 3. Prerequisite: none; Co-requisite: MATH 1710 or equivalent. Digital computers; problem solving and algorithm development; programming is introduced using a procedural approach, but classes and object-orientation are introduced; design and testing are emphasized.

CSC 2110. Data Structures & Algorithms. Lec. 3. Credit 3. Prerequisite: "C" or better in CSC 2100; Co-requisites: CSC 2100, CSC 1610. Abstract data types and fundamental data structures including stacks, queues, and trees; algorithms to search, sort, and manipulate data using such structures; introduction to runtime analysis.

CSC 2111. Data Structures & Algorithms Lab. Lab. 1. Credit 1. Prerequisite: "C" or better in CSC 2100; Co-requisite: CSC 2110. A series of weekly laboratory exercises for developing proficiency in implementing and utilizing data structures.

CSC 2120. Object-Oriented Programming & Design. Lec. 3. Credit 3. Prerequisites: "C" or better in CSC 2110 and CSC 2111; Co-requisite: CSC 2121. Theory and practice of object-oriented programming and design. Encapsulation, inheritance, dynamic binding, and polymorphism; introduction to UML and design patterns.

CSC 2121. Object-Oriented Programming & Design Lab. Lab. 1. Credit 1. Prerequisites: "C" or better in CSC 2110 and CSC 2111; Co-requisite: CSC 2120. A series of weekly laboratory exercises for developing proficiency in object-oriented programming and design.

**Motion.** Dr. Talbert moved to approve the additions effective Spring 2008. The motion was seconded by Dr. Carnal and carried.

**Curriculum Changes:** CSSC Concentration Replace CSC 2001, 2010, 2011, 2020, 2021, and 2300 with CSC 2100, CSC 2110, CSC 2111, CSC 2120, CSC 2121 and 3 additional elective hours.

**Motion.** Dr. Talbert moved to approve the changes effective Fall 2008. The motion was seconded by Dr. Stein and carried.

**Approval of Course and Curriculum Changes from the Department of Electrical and Computer Engineering**

In a memorandum dated October 1, 2007, approval was requested for the following:

**Course Change:** From: ECE 3120. Microcomputer Systems. Lec. 2. Lab. 3. Credit 3. Prerequisites: ECE 2110 and ENGR 2121 or CSC 2010. Architecture and programming of microcomputer systems; interfacing with peripherals.


**Computer Engineering Curriculum Changes:**

- Remove ENGR 1210 from Freshman Fall semester.
- Move the Hum/Fine Arts Elective from Freshman Fall semester to Junior Fall semester.
- Change note number (7) to (6) on ENGR 1020 in Freshman Fall semester.
- Change total hours from 19 to 15 for Freshman Fall semester.
- Delete CSC 2010 and CSC 2011 from Freshman Spring semester.
- Add CSC 2100 to Freshman Spring semester.
- Change total hours from 18 to 17 for Freshman Spring semester.
- Delete CSC 2020 and CSC 2021 from Sophomore Fall semester.
- Add CSC 2110 and CSC 2111 to Sophomore Fall semester.
- Move the Soc/Beh Sci Elective from Sophomore Spring semester to Senior Fall semester.
- Add ECE 2110 to Sophomore Spring semester.
- Delete CSC 2300 from Sophomore Spring semester.
- Add CSC 2120 and CSC 2121 to Sophomore Spring semester.
- Change total hours from 17 to 18 for Sophomore Spring semester.
- Delete ECE 3110 from Junior Fall semester.
- Add CSC 2500 to Junior Spring semester.
- Change total hours from 14 to 15 for Junior Spring semester.
- Delete ECE 4910 and ECE 4941 from Senior Fall semester.
- Add ECE 4960 to Senior Fall semester.
- Change total hours from 12 to 15 for Senior Fall semester.
- Delete ECE 4942 from Senior Spring semester.
Add ECE 4970 to Senior Spring semester.
Delete Note (6).
Change number of Note (7) to (6).

**Motion.** Dr. Carnal, presenting Dr. Parke, moved to approve the changes effective Spring 2008. The motion was seconded by Dr. Kemp and carried.

**Approval of Curriculum Changes from the Department of Electrical and Computer Engineering**

In a memorandum dated October 17, 2007, approval was requested for the following:

**Electrical Engineering Curriculum Changes:**

Remove ENGR 1210 from Freshman Fall semester.
Move the Hum/Fine Arts Elective from Freshman Fall semester to Senior Spring semester.
Delete note number (7).
Change total hours from 19 to 15 for Freshman Fall semester.
Change note number (2) to add ECE 3020 as a junior elective.
Add CSC 2100 to Freshman Spring semester.
Delete ENGR 1120 from Freshman Spring semester.
Change total hours from 16 to 17 for Freshman Spring semester.
Delete ENGR 2121 from Sophomore Fall semester.
Add ECE 2110 to Sophomore Spring semester.
Move CEE 2100 from Sophomore Spring to Junior Fall semester.
Change total hours from 16 to 15 for Sophomore Fall semester.
Delete ECE 3110 from Junior Fall semester.
Move MATH Elec from Junior Spring to Junior Fall semester.
Move Engr. Fund. Elec. from Junior Fall to Junior Spring semester.
Delete ECE 4910 and ECE 4941 from Senior Fall semester.
Add ECE 4960 to Senior Fall semester.
Change total hours from 12 to 15 for Senior Spring semester.
Delete ECE 4942 from Senior Spring semester.
Add ECE 4970 to Senior Spring semester.

**Motion.** Dr. Carnal moved to approve the changes effective Spring 2008. The motion was seconded by Dr. Talbert and carried.

**Approval of Course Addition and Changes from the Department of Industrial and Systems Engineering**

In a memorandum dated October 23, 2007, approval was requested for the following:

**Course Addition:** ISE 4410. Advanced Topics in Discrete Event Simulation.
Lec. 3. Credit 3. Prerequisite: ISE 3410 and consent of instructor. Extensive design, development, and analysis of discrete event simulation, models. Topics include model validation, workload scripts, variance reduction techniques, experimental design, and the application of optimization techniques to simulation models.

**Course Changes:** From: ISE 3200. Engineering Statistics. Lec. 3. Credit 3. Prerequisite: MATH 1920, junior standing. Engineering applications of probability and inferential statistics including statistical distributions, hypothesis testing, confidence intervals, and simple and multiple regression.

To: ISE 3200. Engineering Statistics. Lec. 3. Credit 3. Prerequisite: MATH 1920, junior standing. Engineering applications of probability and inferential statistics including statistical distributions, hypothesis testing, confidence intervals, and simple regression.


To: ISE 3210. Engineering Statistics. Lec. 2. Credit 2. Prerequisite: MATH 1920, junior standing. Engineering applications of probability, hypothesis testing, and confidence intervals.

From: ISE 3220. Design of Experiments. Lec. 3. Credit 3. Prerequisite: ISE 3200. Continuation of probability from ISE 3200. Process improvement techniques including stepwise regression, multi-factor experiments, and fractional factorials.

To: ISE 3220. Design of Experiments. Lec. 3., Credit 3. Prerequisites: ISE 3200 or ECE 3910. Process improvement techniques including stepwise regression and multi-factor experiments.

From: ISE 4400. Advanced Topics in Operations Research. Lec. 3. Credit 3. Prerequisites: ISE 3200, ISE 3400, ISE 3800. Corequisite: ISE 3410. Continuation of ISE 3400. Additional operations research techniques that can be utilized to optimize the design of complex industrial systems are examined. Limitations of computer solutions for these techniques are also evaluated.

To: ISE 4400. Advanced Topics in Operations Research. Lec. 3. Credit 3. Prerequisites: ISE 3400, ISE 3800, and consent of instructor. Nonlinear programming topics such a convexity and local and global minima; integer programming techniques including the modeling of yes/no and if-then else statements; and simulated annealing and genetic algorithms for obtaining improved solutions to engineering problems.
**Motion.** Dr. Elizandro moved to approve the addition and changes effective Spring 2008. The motion was seconded by Dr. Huo and carried.

**Approval of Course Addition from the Department of Basic Engineering**

In a memorandum dated October 28, 2007, approval was requested for the following:

**Course Addition:** ENGR 1310. Excel and Visual Basic for Engineers. Lec. and Lab. 4. Credit 2. Prerequisite: Algebra. Problem definition, algorithm development, flowcharting/pseudocode, spreadsheet fundamentals, structured programming using Excel/VBA and Visual Basic, engineering applications of spreadsheets and programming.

**Motion.** Dr. Loutzenhesier moved to approve the addition effective Summer 2008 (first term). The motion was seconded by Dr. Talbert and carried.

The meeting adjourned at 3:35 p.m.