Curriculum Committee
March 19, 2015

The Curriculum Committee met on Thursday, March 19 at 3:00 p.m. in the Dean's Conference Room, Derryberry Hall, Room 200.

Members present:

Dr. Melinda Anderson	Dr. Allan Mills
Dr. Curtis Armstrong	Dr. Thomas Payne
Dr. Julie Baker	Dr. Richard Rand
Dr. Doug Bates	Dr. Mohan Rao
Dr. Kristine Craven	Dr. James Raymondo
Ms. Edith Duvier	Dr. Joseph Rencis
Dr. Kurt Eisen	Dr. Thomas Riley
Dr. Steve Frye	Dr. Jeff Roberts
Ms. Julie Galloway	Dr. Stephen Robinson
Dr. Bahman Ghorashi	Dr. Liz Mullens
Dr. Mark Groundland	Dr. Barry Stein
Ms. Brandi Hill	Dr. Mark Stephens
Dr. Bobby Hodum	Dr. Jeremy Wendt
Dr. Darrell Hoy	Ms. Janet Whiteaker
Dr. Sharon Huo	Dr. Brenda Wilson
Dr. Steve Isbell	Ms. Jerri Winningham
Dr. Wayne Johnson	Mr. Chris Wilson
Dr. Christy Killman	Mr. Alex Martin
Dr. Robert Kissell	

Members absent:

Dr. Pedro Arce	Dr. Doug Talbert
Dr. Jeff Boles	Dr. Huey-Ming Tzeng
Mr. Ward Doubet	Ms. Hannah Dugger
Dr. Ahmed Elsawy	Ms. Lydia Cantrell
Dr. Melissa Geist	Ms. Maggie Wall
Dr. Ben Mohr	Ms. Maggie Schaper
Dr. Paul Semmes	Ms. Sarah Stanley
Dr. Jennifer Shank	

Official representatives:

Dr. Michael Clark for Dr. Barnes	Ms. Kaye Loftis for LTC Peterson
Dr. Joseph Asante for Dr. Harrison	Dr. Brad Bull for Dr. Joe Roberts
Dr. Linda Null for Dr. Pelton	

Guests:

Ms. Denise Burgess	Dr. Hayden Mattingly
Ms. Amy Jared	Ms. Cari Williams

SUMMARY OF PROCEEDINGS

1. Approval of agenda
2. Approval of February 12, 2015 minutes
3. Approval of Special Education (Non-Licensure) Concentration from the Department of Curriculum & Instruction **and**
   approval of SPED course additions, deletions and changes from the Department of Curriculum and Instruction
4. Change of MDS Middle School concentration name – Information only
   (Revision from Oct. 21, 2014 meeting updating History to Social Studies)
5. Approval of course changes from the Department of Biology
6. Approval of Wording Changes from the Learning Support Program
7. Approval of course change from the Department of Art
8. Approval of Procedure Revisions from the TTU General Education Committee
9. Approval of concentration name change from the Department of Exercise Science, Physical Education and Wellness (to Sport Administration)
10. Approval of a Minors in Coaching and Exercise Science from the Department of Exercise Science, Physical Education & Wellness
11. Approval of curriculum changes from the Department of Exercise Science, Physical Education & Wellness
12. Approval of course change from the Department of Exercise Science, Physical Education & Wellness
13. Approval of curriculum changes in Pre-Occupational Therapy and Pre-physical Therapy Concentrations from the Department of Exercise Science, Physical Education & Wellness
14. Approval of course addition from the Department of Exercise Science, Physical Education & Wellness
15. Approval of course additions and deletions from the Department of Exercise Science, Physical Education & Wellness
16. Approval of curriculum changes from the Department of Exercise Science, Physical Education & Wellness
17. Approval of ETSU/TTU Joint Degree for a Bachelor of Science in Engineering Program of Study from the College of Engineering
18. Approval of course additions for the ETSU/TTU Joint BSE Degree Program from Basic Engineering and the College of Engineering
19. Approval of course additions and changes from the Department of Physics
20. Approval of course addition from the Department of English
21. Approval of course changes from the Department of Curriculum and Instruction
22. Approval of catalog change from the College of Business

23. Approval of course changes from the Department of Accounting and Business Law
24. Approval of course additions from the Department of Accounting and Business Law
25. Approval of course change from the Department of Accounting and Business Law
26. Approval of Business Elective Designation change from the College of Business
27. Approval of course changes from the Department of Chemical Engineering
28. Approval of course deletions and changes from the Department of Computer Science
29. Approval of course changes from the Department of Electrical and Computer Engineering
30. Approval of course change from the Department of Manufacturing and Engineering Technology
31. Approval of course and curriculum changes from the Department of Mechanical Engineering
32. Approval of course changes from the Department of Mechanical Engineering
33. Approval of course additions and Minor from the School of Interdisciplinary Studies
34. Approval of course and curriculum changes from the School of Human Ecology
35. Information Only – Undergraduate Degree Requirements – Ms. Winningham
36. Election of 2015-16 Chairperson
37. Other Such Matters
    Informational - course number change from the Department of Sociology and Political Science
    Approval of course changes from the Department of Foreign Languages
    Approval of curriculum change from the Department of Communications
    Thank you to Dr. Craven
    Reminder – Requirement of hours for bachelor degree – Dr. Hodum

PROCEEDINGS

1. Approval of Agenda

Motion. Dr. Raymondo moved to approve the agenda. The motion was seconded by Dr. Armstrong and carried.

2. Approval of February 12, 2015 minutes

Motion. Dr. Stein moved to approve the minutes as submitted. The motion was seconded by Dr. Groundland and carried.

3. Approval of New Concentration in Special Education (Non-Licensure) from the Department of Curriculum and Instruction

In a memorandum dated February 10, 2015, approval was requested for the following:

New Concentration:
Establish a concentration in Special Education (non-licensure) within the Education Bachelors Program, B.S.
(Program of Study and TBR forms are on file in the Provost's Office)

Motion. Dr. Wendt moved to approve the new concentration to be effective Fall 2015. The motion was seconded by Dr. Baker and carried.

Course Additions , Deletions, and Changes from the Department of Curriculum and Instruction
In a memorandum dated February 10, 2015, approval was requested for the following:

Course Additions:
SPED 3110. Behavior Concepts Lec. 3. Credit 3.
Prerequisite: Full admission to the Teacher Education Program. Focus on defining applied behavior analysis; selecting, assessing and evaluating behavior to change; and functional and experimental analyses of behavior change.

SPED 3120. Interventions and Supports Lec.3. Credit 3.
Prerequisite: Full admission to the Teacher Education Program and SPED 3110. Focus on the development of new behaviors, various clinical interventions for decreasing interfering behaviors, and maintaining behavioral changes.

SPED 4110. Behavioral Assessment Lec.3. Credit 3.
Prerequisite: Full Admission to the Teacher Education Program, SPED 3110, and 3120. Focus on verbal behavior, motivating operations, and the use of functional analysis in treating common disorders.

SPED 4120. Topics in Behavior Lec.3. Credit 3.
Prerequisite: Full Admission to the Teacher Education Program, SPED 3110, 3120, and 4110. Focus on ethics in the implementation of behavior services and special uses of behavioral assessment.

SPED 4170. Community Residency/Practicum I Credit 7.
Prerequisite: Full Admission to the Teacher Education Program, SPED 3110, and SPED 3120. Corequisite: SPED 4110. Provides an internship experience by working with persons with disabilities within the community setting by allowing the demonstration/implementation of factual knowledge and skills gained through coursework and hands-on experience. Implementing behavior intervention strategies and self-advocacy skills will show competence of this course and will be explored through weekly individual meetings with university faculty.

SPED 4180. Community Residency/Practicum II Credit 9.
Prerequisite: Full Admission to the Teacher Education Program, and SPED 4170. Corequisite: SPED 4120. Provides an intensive internship experience by working with persons with disabilities within the community setting. Through individual mentorship of university faculty, the student will demonstrate skills necessary to implement methods in a variety of placements and the knowledge to complete mandatory state required paperwork, intensive behavior supports, and self-advocacy skills.

Course Change:
From:
SPED 3020. Characteristics and Needs of Persons with Comprehensive Disabilities Lec. 3. Credit 3.
Prerequisite: SPED 2010 or consent of instructor. Introduction to characteristics and to planning, designing, and selecting assessment and teaching methodologies.

To:

SPED 3020. Characteristics and Needs of Persons with Comprehensive Disabilities Lec. 3. Credit 3. Prerequisite: SPED 2010, SPED 3050, and full admission to the Teacher Education Program. This course is designed to provide an intensive study into the various types of disabilities that fall within the range of moderate to severe disabilities. In addition to the characteristics of these disabilities, students will explore a broad range of research based teaching strategies and techniques for this population. A built in practicum will provide hands-on experience while implementing systematic data driven instruction. Additional emphasis is placed on core components that serve students who receive special education services with moderate to severe disabilities.

Delete: "or consent of instructor. Introduction to characteristics and to planning, designing, and selecting assessment and teaching methodologies."

Add: to prerequisite "SPED 3050, and full admission to the Teacher Education Program. This course is designed to provide an intensive study into the various types of disabilities that fall within the range of moderate to severe disabilities. In addition to the characteristics of these disabilities, students will explore a broad range of research based teaching strategies and techniques for this population. A built in practicum will provide hands-on experience while implementing systematic data driven instruction. Additional emphasis is placed on core components that serve students who receive special education services with moderate to severe disabilities.

From:

SPED 3030. The Education of Persons with Learning Disabilities Lec. 3. Credit 3. Prerequisite: SPED 2010. Full admission to the Teacher Education Program. This course will provide an intensive study of background information and current perspectives in specific learning disabilities. Concepts of neurological dysfunction, dyslexia, perceptual impairments, etc., are reviewed from an interdisciplinary perspective. Emphasis on knowledge, comprehension, and evaluation of these concepts as they apply to education and behavior management strategies. Considerations in diagnosis and educational programming are developed.

To:

SPED 3030. The Education of Persons with Learning Disabilities Lec. 3. Credit 3. Prerequisite: SPED 2010, SPED 3050, and full admission to the Teacher Education Program. This course will provide an intensive study of background information and current perspectives in specific learning disabilities. Concepts of neurological dysfunction, dyslexia, perceptual impairments, etc., are reviewed from an interdisciplinary perspective. Emphasis on knowledge, comprehension, and evaluation of these concepts as they apply to education and behavior management strategies. Considerations in diagnosis and educational programming are developed.

Add: Prerequisite: SPED 3050

From:

SEED 4125(5125). Materials and Methods of Teaching Foreign Language Lec. 3. Credit 3.

Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3820. Principles, objectives, techniques, and evaluation in secondary school teaching of foreign languages.

To:
SEED 4125(5125). Materials and Methods of Teaching Foreign Language Lec. 3. Credit 3.
Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3800 or CUED 6800. Principles, objectives, techniques, evaluation in secondary school teaching of Foreign Languages. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

Delete: Corequisite: FOED 3820.
Add: "Full" wording to admission requirement; Corequisite: FOED 3800 or CUED 6800; add "Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus."

Course Deletion:
SPED 1010. Orientation to Exceptional Individuals Lec. 2. Credit 2.
SPED 3010. Roles and Functions for Teaching Persons with Disabilities Lec. 3. Credit 3.
SPED 4080. Child Maltreatment Lec. 2. Credit 2.
SPED 4150(5150). Speech and Language Acquisition and Development Credit 3.
SPED 4160(5160). Speech Pathology in the Schools Credit 3.
SPED 4250. Reading and Research in Special Education Credit 1-3.

Motion. Dr. Wendt moved to approve the additions, deletions. And changes effective Fall 2015. The motion was seconded by Dr.Baker and carried.

4. Information Only – Revision of Concentration Name Change from October 21, 2014 Meeting Proposal from the Department of Curriculum and Instruction

Change:
Four new concentrations in the College of Education B.S. Multidisciplinary Studies were approved at the October 21, 2014 meeting. Due to state licensure requirements, there has been a name change from Middle School History 6-8 to Middle School Social Studies 6-8.

5. Approval of Course Changes from the Department of Biology
In a memorandum dated January 26, 2015, approval was requested for the following:

Course Changes:
A. Change the prerequisites for BIOL 3240 – Field Botany

FROM:

BIOL 3240 – Field Botany Lec. 2. Lab. 3. Credit 3.
Prerequisite: BIOL 1114 and Junior Standing. Survey of regional flora (herbs, shrubs, & trees) focusing on gymnosperms and angiosperms. Emphasis on nomenclature, structural characteristics, identification of species using a dichotomous key, and characteristics of plant families.

TO:
BIOL 3240 – Field Botany Lec. 2. Lab. 3. Credit 3.
Prerequisite: BIOL 2110 and Junior Standing. Survey of regional flora (herbs, shrubs, & trees) focusing on gymnosperms and angiosperms. Emphasis on nomenclature, structural characteristics, identification of species using a dichotomous key, and characteristics of plant families.

B. Change the prerequisite for BIOL 4250 (5250) - Economic Botany
FROM:
BIOL 4250 (5250) - Economic Botany Lec. 3. Credit 3.
Prerequisite: BIOL 1114. Interrelationships between plants and people. Topics include a survey of the past, present, and future uses of plants and the role of conservation biology in the preservation of plant resources.

TO:
BIOL 4250 (5250) - Economic Botany Lec. 3. Credit 3.
Prerequisite: BIOL 2110. Interrelationships between plants and people. Topics include a survey of the past, present, and future uses of plants and the role of conservation biology in the preservation of plant resources.

C. Change the prerequisites for BIOL 4300 (5300) – Plant Speciation and Evolution
FROM:
BIOL 4300 (5300) – Plant Speciation and Evolution Lec. 3. Credit 3.
Prerequisite: BIOL 1114. Principles of the evolution of plants at the micro- and macroevolution levels, including a survey of relevant primary and secondary literature.

TO:
BIOL 4300 (5300) – Plant Speciation and Evolution Lec. 3. Credit 3.
Prerequisites: BIOL 2110 and Junior Standing. Principles of the evolution of plants at the micro- and macroevolution levels, including a survey of relevant primary and secondary literature.

D. Change the prerequisites for BIOL 4310 (5310) – Plant Anatomy
FROM:
BIOL 4310 (5310) – Plant Anatomy Lec. 2. Lab. 3. Credit 3.
Prerequisite: Junior Standing. A comparative study of the structure of vascular plants in relation to function.

TO:
BIOL 4310 (5310) – Plant Anatomy Lec. 2. Lab. 3. Credit 3.
Prerequisite: BIOL 2110 and Junior Standing. A comparative study of the structure of vascular plants in relation to function.

E. Change the prerequisites for BIOL 4430 (5430) – Vascular Plant Biology
FROM:
BIOL 4430 (5430) – Vascular Plant Biology Lec. 2. Lab. 3. Credit 3.
Prerequisite: BIOL 1114. Morphological and phylogenetic survey of the vascular plants.

TO:
BIOL 4430 (5430) – Vascular Plant Biology Lec. 2. Lab. 3. Credit 3.
Prerequisite: BIOL 2110 and Junior Standing. Morphological and phylogenetic survey of the vascular plants.

F. Change the prerequisite for BIOL3810 - General Genetics
FROM:
BIOL 3810 – General Genetics Lec. 3. Lab. 2. Credit 4.
Prerequisite: BIOL 1114. Principles and laws governing inheritance in plants and animals including man.

TO:
BIOL 3810 – General Genetics Lec. 3. Lab. 2. Credit 4.
Prerequisite: BIOL 1105. Principles and laws governing inheritance in plants and animals including man.

G. Add an alternative prerequisite to BIOL 4000 (5000) - General Parasitology
FROM:
BIOL 4000 (5000) – General Parasitology Lec. 3. Lab. 2. Credit 4.
Prerequisite: BIOL 1114 and BIOL 3130 or WFS 3130. Biology of animal agents and vectors of diseases with emphasis placed on medical parasitology and organisms that parasitize fish and wildlife species.

TO:
BIOL 4000 (5000) – General Parasitology Lec. 3. Lab. 2. Credit 4.
Prerequisite: BIOL 1114, BIOL 3120 or BIOL 3130 or WFS 3120 or WFS 3130. Biology of animal agents and vectors of diseases with emphasis placed on medical parasitology and organisms that parasitize fish and wildlife species.

Motion. Dr. Kissell moved to approve the changes effective Summer 2015. The motion was seconded by Dr. Mills and carried.

6. Approval of Course Changes from the Learning Support Program
In a memorandum dated February 12, 2015, approval was requested for the following:

Course Changes:

READ 1010 – College Reading Improvement Lec. 2. Lab.2. Credit 3.

From:

Placement by ACT Reading score less than 19, by advisor recommendation, or by student self placement. Improvement of reading skills, including vocabulary, spelling comprehension, rate, main idea, supporting details, organization and relationships, and critical and strategic reading.

To:

Placement by ACT Reading score less than 19 [and/or by COMPASS Placement Exam score less than 83], by advisor recommendation, or by student self-placement. Improvement of reading skills, including vocabulary, spelling, comprehension, rate, main idea, supporting details, organization and relationships, and critical and strategic reading.

Students with a Reading requirement may be restricted in the number or type of high-reading-content classes they may take until they have removed the learning support requirement. Withdrawal is not allowed except with special permission.

Students who self-place/volunteer for READ1010 are under no such restrictions.

READ1100 – Learning Support Lab for Writing and Reading Lab.1. Credit 0.

From:

Placement by ACT English score less than 18 and/or by COMPASS placement exam writing score less than 77 or placement by ACT Reading score less than 17 and/or by COMPASS placement exam reading score less than 73.

Learning support lab for writing and reading is provided through tutoring, workshops, conferences, computer software, etc. by Learning Support Program faculty and supervised teaching assistants. Topics covered are intended to coincide with the schedules/syllabi for ENGL 1010 and READ 1010 to support concepts as they are introduced in those classes. Withdrawal is not allowed except with special permission

To:

Placement by ACT English score less than 18 and/or by COMPASS placement exam writing score less than 77 or placement by ACT Reading score less than 17 and/or by COMPASS placement exam reading score less than 73.

Learning Support Lab for Writing and Reading is provided through tutoring, workshops, conferences, computer software, etc., [both in and out of the classroom setting] by Learning Support Program faculty and supervised teaching assistants. Topics covered are intended to coincide with the schedules/syllabi for ENGL 1010 and READ 1010 to support concepts as they are introduced in those classes.

Withdrawal is not allowed except with special permission.

UNIV1030 – Learning Strategies Lec. 2. Credit 1.
From:
UNIV 1030 is a course designed to strengthen the student's connection to Tennessee Technological University by focusing on the enhancement of skills needed for academic success. This course engages the student in meaningful academic and non-academic in-and-out-of-classroom activities. It emphasizes critical thinking in the formation of academic and social goals and support groups, in self-management, and in study strategies.

To:
UNIV 1030 is a course designed to strengthen the student's connection to Tennessee Technological University by focusing on the enhancement of skills needed for academic success. This course engages the student in meaningful academic and non-academic, in-and-out-of-classroom activities. It emphasizes critical thinking in the formation of academic and social goals and support groups, in self-management, and in study strategies.

Placement in Learning Strategies (UNIV1030) is required for students who place into two or more subject areas [Math, Reading, Writing/English] of learning support.

Students may self-place to improve their study techniques for college-level work.

UNIV1030 may be conducted as a "Special Topics" course for students who have already completed the requirement but are required to take it as a result of being readmitted on probation or after suspension. In this capacity, the course could be taken more than once with special permission under specified circumstances.

Withdrawal is not allowed except with special permission.

Motion. Ms. Whiteaker moved to approve the changes effective Fall 2015. The motion was seconded by Dr. Baker and carried.

7. Approval of Course Change from the Department of Art
In a memorandum dated January 27, 2015, approval was requested for the following:

Course Change:
From:
Art 2099: Professional Practices for the Artist
Lec. 3. Credit 3.

Prerequisite: Students should be a BFA major and have a class rank of sophomore or above, or permission of the instructor. Students will research and learn to apply basic professional practices of the artist, including: business practices, marketing/promotion approaches, and identifying, applying for and

utilizing resources available to artists. These skills will be used for advancing students' careers as emerging artists or preparing them for further study in the visual arts. This investigation will occur through reading and discussion, visiting presenters, writing, research projects/exercises, and development of individual portfolios.

To:
Art 2099: Professional Practices for the Artist
Lec. 3. Credit 3.

Prerequisite: ART 1010, ART 1250, ART 2010, ART 2310, ART 2320 or 2330 and at least 6 credits of other art studio classes, or permission of the instructor. Students will research and learn to apply basic professional practices of the artist, including: business practices, marketing/promotion approaches, and identifying, applying for and utilizing resources available to artists. These skills will be used for advancing students' careers as emerging artists or preparing them for further study in the visual arts. This investigation will occur through reading and discussion, visiting presenters, writing, research projects/exercises, and development of individual portfolios.

Motion. Dr. Baker moved to approve the change effective Fall 2015. The motion was seconded by Dr. Anderson and carried.

8. Approval of Revisions to TTU General Education Procedures from the TTU General Education Committee

The following procedure revisions were submitted:

Procedures of the TTU General Education Committee
Rev. March 2015

A. Name

The TTU General Education Committee (TTUGEC)

B. Place in the TTU Committee Structure

The TTUGEC reports directly to the Provost, as mandated by the Tennessee Board of Regents, but also serves as a subcommittee of the TTU Curriculum Committee.

C. Purposes

1. Monitor all courses within the General Education Program, ensuring that they satisfy the goals and measurable outcomes for each category established by the General Education requirements.
2. Evaluate and approve or disapprove all courses submitted for inclusion in the TTU General Education Program.
3. Develop appropriate procedures, forms, and policies relating to the TTU General Education Program.

4. Support the development of new General Education courses and collaborations to enhance undergraduate learning at TTU.
5. Resolve Program issues as they arise.
6. Assist the campus Curriculum Committee in assuring all General Education requirements are met for all degree programs.
7. Work with the TBR and TTU's Provost to develop and administer assessment methods for the General Education Program.

D. Membership

1. Representation. The Dean or Associate Dean of the College of Arts & Sciences chairs and serves as a permanent member of the Committee. Other members include:
    a. One tenured or tenure-track faculty representative from each of the six areas of the Program: Communications, Mathematics, Natural Science, Social/Behavioral Science, History, and Humanities/Fine Arts.
    b. One representative from any college or stand-alone school not already represented by a member in one of the above categories.
    c. Three additional members, drawn from the TTU faculty or administrative staff, as at-large representatives.
2. Method of appointment. Members will be appointed by the President upon recommendations from the Provost based on recommendations by the Chair of the Committee.
3. Terms. Members will serve three-year, renewable terms, staggered so that a third of the Committee is replaced or renewed each year.
4. List of Members. The Chair of the TTUGEC will keep on file a current membership list indicating the unit affiliation and term of each member.
5. Process for appointments. Each April, the Chair of the TTUGEC will send to the Provost a list of recommended appointments to fill vacancies left by members whose terms are about to expire. The Provost forwards the list, revised as he or she deems appropriate, to the President for approval or further revision and approval.

E. Meetings

The TTUGEC will schedule regular meetings twice each semester, excluding the summer. Each spring the Chair will consult with the Office of the Provost to establish dates for the following year's meetings. In the fall, a meeting will be scheduled at least nine (9) calendar days before each TTU Curriculum Committee meeting. In the spring, the first meeting will precede the final TTU Curriculum Committee meeting of the year (usually in March) by at least nine (9) calendar days, with the second meeting will be held in April, anticipating the first TTU Curriculum Committee meeting of the following academic year in September as well as the annual TBR deadline for new course (or course modification) proposals in October. Special meetings may be called by the Chair as needed.

F. Process for Proposals of Courses, Course deletions, and Course Changes

Routing. Proposals for courses to be added to the General Education core will follow the process outlined on the General Education website (see https://www.tntech.edu/cas/gened/proposal-process). Proposals for new courses intended primarily to fulfill General Education requirements should first be reviewed by the TTUGEC; other course proposals related to General Education will follow the usual path, originating in the department where the course will be taught and then to the college curriculum committee in which that department is housed.

1. Timing. To allow time for review by the appropriate subcommittee, proposals must reach Chair of the TTUGEC no later than four weeks prior to the next regularly scheduled meeting.
2. Form. Proposals will follow the standard format approved for curricular proposals at TTU (see https://www.tntech.edu/president/committees/curriculum-committee). In addition, any proposal for a new course must include a document demonstrating how it will meet the learning outcomes for its General Education area (see under "General Education Learning Outcomes" at https://www.tntech.edu/cas/gened/) and a rationale for adding it to the core list.

G. Process for Placing Other Items on the TTUGEC Agenda Proposals, concerns, issues, or ideas, other than course proposals, may be sent to the Chair of the TTUGEC in any concise, readable form, and must reach the Chair no later than three (3) class days* before the next regularly scheduled meeting.

H. Rules of Order

Discussion and voting will generally follow the latest edition of *Roberts Rules of Order*, *Newly Revised* and any disagreement regarding procedures for discussion or voting will be resolved with reference to *Roberts Rules*.

I. Quorum and Voting

1. A quorum for official voting is two thirds of the membership.
2. Approval of any proposal requires a majority of those voting.
3. Voting may take place in face-to-face meetings, through campus mail, ~~or~~ through email, or other online methods.

J. Meeting records

Although detailed minutes will not be kept of TTUGEC meetings, the Chair will ensure that dated copies of approved proposals and policies are kept and filed.

K. Subcommittees

To ensure wide faculty involvement in key decisions, subcommittees will be formed to advise the TTUGEC.

1. Chairpersons and Purpose. One regular TTUGEC member in each General Education area is appointed by the TTUGEC Chair to lead a subcommittee which addresses issues related to

that area of the Program, such as proposals for courses to be added to the TTU General Education core.

2. Members. Subcommittees must include only full-time faculty members and, except for their chairpersons, may include faculty members not currently on the TTUGEC. Each year when there are issues to be considered by a subcommittee, its chair appoints his or her own committee members in consultation with the appropriate department chair(s) and with the approval of the Chair of the TTUGEC. Updated lists of the subcommittees are kept on file by the subcommittee chairs as well as the Chair of the TTUGEC.
3. Meetings. All subcommittee meetings are special, called meetings to consider particular issues.
4. The subcommittee chairs are responsible for selecting recipients of the annual General Education Award for Outstanding Teaching, as described in the current guidelines and procedures for that award.

L. Website

The College of Arts and Sciences office staff, in consultation with the Chair of the TTUGEC, will maintain a website named "General Education Curriculum and Policies." The site will provide basic information about the program for the use of advisors, ~~and~~ students, and faculty.

M. Adoption and Amendment of Procedures

These procedures may be adopted or amended by an affirmative vote of two-third of the total membership, provided the amendment has been discussed at a regular meeting and has been submitted in writing to each committee member at least three (3) class days* prior to the discussion. Such amendments are subject to approval by the Provost.

N. Effective date

These procedures become effective on the day after they are approved by the TTUGEC, the TTU Curriculum Committee, and the Provost.

Note:
* A "class day" is defined as any day in which TTU classes are officially in session.

Motion. Dr. Eisen moved to approve the revisions effective upon approval. The motion was seconded by Dr. Anderson and carried.

9. Approval of Concentration Name Change from the Department of Exercise Science, Physical Education and Wellness

In a memorandum dated February 16, 2015, approval was requested for the following:

Concentration Name Change:
From:

Coaching and Sport Administration

To:
Sport Administration

Motion. Dr. Killman moved to approve the change effective Fall 2015. The motion was seconded by Dr. Anderson and carried.
(TBR forms on file in the Provost 's Office)

10. Approval of Minors from the Department of Exercise Science, Physical Education and Wellness
In two memorandums dated February 16, 2015, approval was requested for the following:

Minor in Coaching:
Courses for a Minor in Coaching:

EXPW 1150	Care & Prevention of Athletic Injuries	3 hr
EXPW 3091	Coaching Individual Sports	3 hr
OR		
EXPW 3092	Coaching Team Sports	3 hr
EXPW 3180	Introduction to Coaching	3 hr
EXPW 4032	Training for Performance	3 hr
EXPW 4171	Sport Psychology	3 hr
EXPW 4540	Ethical Issues in Sport	3 hr
OR		
EXPW 4550	Sport Governance	3 hr
		18 hr

Minor in Exercise Science:
Course for a Minor in Exercise Science:

EXPW 3032 – Exercise Prescription	3hr
EXPW 3170 – Motor Learning	3hr
EXPW 3410 – Motor Development	3hr

EXPW 4032 – Training for Performance 3hr

EXPW 4420 – Kinesiology 3hr

EXPW 4440 – Physiology of Exercise 3hr

Total 18hr

Motion. Dr. Killman moved to approve the two minors effective Fall 2015. The motion was seconded by Dr. Frye and carried.

11. Approval of Course Addition and Curriculum Change in Fitness and Wellness Program from the Department of Exercise Science, Physical Education and Wellness

In a memorandum dated February 16, 2015, approval was requested for the following:

Course Addition:
EXPW 4900 Research Methods iin Exercise Science Lec. 3, Credit 3
Prerequisite: Senior standing and completion of EXPW 4730. The purpose of this course is to prepare students to search/cite/reference articles properly, write correct research hypotheses, and be able to properly cite information using the APA manual.

Curriculum Change:
From:
Senior Year – Electives Credit 5

To:
Senior Year – Electives Credit 2

Motion. Dr. Killman moved to approve the addition and change effective Fall 2015. The motion was seconded by Dr. Wendt and carried.

12. Approval of Course Change from the Department of Exercise Science, Physical Education and Wellness

In a memorandum dated February 16, 2015, approval was requested for the following:

Course Change:
From:
EXPW 4730 Assessment & Evaluation in Physical Education Lec. 3, Credit 3

To:
EXPW 4730 Assessment & Evaluation in Exercise Science Lec. 3, Credit 3

Motion. Dr. Killman moved to approve the change effective Fall 2015. The motion was seconded by Dr. Hodum and carried.

13. Approval of Curriculum Changes in Pre-Occupational Therapy and Pre-Physical Therapy Concentrations from the Department of Exercise Science, Physical Education and Wellness

In two memorandums dated February 16, 2015, approval was requested for the following:

Changes in Pre-Occupational Therapy:

Addition:

1. **EXPW 4900. Research Methods in Exercise Science. Lec. 3. Cr. 3**.
   Prerequisite: Senior standing and completion of EXPW 4730. The purpose of this course is to prepare students to search/cite/reference articles properly, write correct research hypotheses, and be able to properly cite information using the APA manual.

2. Add to the Guided Electives List

   BIOL 3230 Microbiology for Health Sciences Lec. 3. Lab. 3. Credit 4.

Changes:

From:

In the 'Senior Year' on curriculum sheet - "Electives Credit 8."

To:

In the 'Senior Year' on curriculum sheet - "Electives Credit 5."

Changes in Pre-Physical Therapy:

Addition:

1. EXPW 4900. Research Methods in Exercise Science. Lec. 3. Cr. 3.
   Prerequisite: Senior standing and completion of EXPW 4730. The purpose of this course is to prepare students to search/cite/reference articles properly, write correct research hypotheses, and be able to properly cite information using the APA manual.

2. Add to the Guided Electives List

   BIOL 3230 Microbiology for Health Sciences Lec. 3. Lab. 3. Credit 4.

Course Changes:

From:

In the 'Senior Year' on curriculum sheet - "Electives Credit 8."

To:

In the 'Senior Year' on curriculum sheet - "Electives Credit 5."

Motion. Dr. Killman moved to approve the changes effective Fall 2015. The motion was seconded by Dr. Wendt and carried.

14. Approval of Course Addition from the Department of Exercise Science, Physical Education and Wellness

In a memorandum dated February 25, 2015, approval was requested for the following:

Course Addition:
EXPW/HEC 2015 – Concepts of Health and Wellness Lec. 3. Cr. 3.
Exploration of the impact of health and wellness as it affects personal behavior, social development, and quality of life for individuals, families and communities. Analysis of behavioral change theories regarding social context of individual human behavior and examination of current social and behavioral science research within the context of health and wellness.

Motion. Dr. Killman moved to approve the addition. The motion was seconded by Dr. Eisen and carried.

15. Approval of Course Additions and Curriculum Changes from the Department of Exercise Science, Physical Education and Wellness

In a memorandum dated February 16, 2015, approval was requested for the following:

Course Additions:
EXPW 3560. Techniques and Tactics of Sports Lec 2. Cr 2.
This course is designed to explore a variety of sports including required skills for game play, rules, offensive and defensive strategies and more.

EXPW 3660. Curriculum in Physical Education Lec 2. Cr 2.
Prerequisite: Full admission to the Teacher Education Program. This course examines various curriculum models in physical education and prepares teacher candidates to construct curricula in physical education.

EXPW 4731 – Assessment in the Physical Education Classroom Lec 2. Cr 2.
Prerequisite – Full admission to the Teacher Education Program. This course will provide teacher Candidates with opportunities to learn various forms and kinds of testing and measurement valid In physical education.

EXPW 3012 – Educational Gymnastics, Dance & Fitness Lec. 1, Cr. 1.
This course provides experience for the candidate to become familiar with educational gymnastics, dance and fitness and how to teach each of these in elementary, middle and high school settings.

EXPW 4873 – Professional Seminar I Lec 3. Cr 3
Fall only. Prerequisites: Full Admission to Teacher Education; completion of EXPW 4711 and EXPW 4721 with grade of B or better. Corequisite EXPW 4871. Problem-based learning directly related to individual experiences in EXPW 4871 – Residency 1 and potential teaching situations. Attention given to Ready 2 Teach and EdTPA.

Course Deletions:
EXPW 4032 – Training for Performance Lec 3. Cr 3.
Prerequisite: Junior or senior standing in EXPW. Theoretical understanding and practical development of training programs intended to maximize sport performance.

EXPW 2160 – Drug Use and Abuse Lec 2. Cr 2.
The study of legal and illegal drugs and their relationship to contemporary society.

EXPW 4872 – Professional Seminar I Lec 5. Cr 5.
Corequisite: EXPW 4871. Problem-based learning experiences related to assessment, evaluation and curriculum design for elementary and secondary physical education

Motion. Dr. Killman moved to approve the additions and changes effective Fall 2015. The motion was seconded by Dr. Wendt and carried.

16. Approval of Curriculum Changes for Sport Administration Concentration from the Department of Exercise Science, Physical Education and Wellness
In a memorandum dated February 18, 2015, approval was requested for the following:

Curriculum Additions: (15 hours)
ECON 2020 – Principles of Macro Economics Lec 3. Cr 3.
Aggregate supply and aggregate demand, employment and income determination, money and banking, monetary and fiscal policy, and international finance.

ACCT 3720 - Survey of Accounting Lec. 3. Cr 3.
Basic accounting principles, financial statements, cost behavior, cost accounting systems, and costing for management decisions. Open to non-business majors only. Credit will not be granted for both ACCT 2110 or ACCT 2120 and **ACCT 3720**. Enrollment in junior or senior level accounting courses requires junior standing.

DS2810 - Computer Applications in Business Lec. 3. Cr. 3.
Management approach to business applications of computer technology. Microcomputers and large scale computers are used in problem solving.

FIN 3210 - Principles of Managerial Finance Lec. 3. Cr 3.
Prerequisite: ECON 2010, ECON 2020, and ACCT 2120 (or ACCT 3720 for non-business majors only). Financial theory and procedures required for the financial decision-making function of business organizations. Enrollment in junior- and senior-level FIN courses requires junior standing.

LAW 3810 – Business Legal Environment and Ethics Lec. 3. Cr. 3.
The legal aspects of the business environment including antitrust, administrative, consumer, and employment law; business organizations; and principles of contracts. Enrollment in junior- or senior-level law courses requires junior standing.

List of Course added to the catalog under "Notes" as "Guided Electives":

EXPW 4730 – Assessment & Evaluation in Exercise Science	Lec 3. Cr 3.
EXPW XXXX – Research Methods in Exercise Science	Lec 3. Cr 3.
JOUR 2200 – Mass Communication in a Changing Society	Lec. 3. Cr 3.
JOUR 2220 – News Reporting and Copy Editing	Lec. 3. Cr. 3.
JOUR 3400 – Introduction to Broadcast Journalism	Lec. 3. Cr. 3.

Curriculum Deletions: (15 hours)
EXPW 3091 – Coaching Individual Sports Lec. 2. Lab.1. Credit 3.
Prerequisite or corequisite: EXPW 3180. A study of skills, knowledge, strategies and leadership associated with coaching selected individual sports.

EXPW 3092 – Coaching Team Sports Lec. 2. Lab. 1. Credit 3.
Prerequisite: EXPW 3180. The theory and practice of coaching volleyball, basketball and soccer.

EXPW 3180 - Introduction to Coaching Lec. 3. Credit 3.
This course provides candidates with an exposure to the application of theoretical aspects of coaching including philosophy, teaching, training, management, ethics, gender and culture.

EXPW 3300 – Sports Officiating Lec. 2. Credit 2.
Detailed techniques and methods of sports officiating involving rule interpretation and ethical character.

EXPW 3301 – Sports Officiating: Spring Sports Lec 2. Cr 2.
Detailed techniques and methods of sports officiating involving rule interpretation and ethical character for spring sports.

Elective 1 credit (Junior Year)

Elective 1 credit (Senior Year)

Course Changes:

From:

MATH 1010 – Introduction to Contemporary Mathematical Ideas Lec. 3. Cr. 3.
Mathematics as applied to real-life problems selected from such topics as preference schemes for voting, fair division and apportionment methods, routing and scheduling problems, analysis of graphs, growth, and symmetry and counting problems.

◆ Meets Tennessee Technological University and Tennessee Board of Regents minimum degree requirements.

To:

Any General Education MATH Lec 3. Cr 3.

From:

EXPW 4811 – Sport Management Internship Credit 3.
One semester work experience with a cooperating agency. Application must be approved one semester in advance.

To:

EXPW 4810 – Field Experience Lab 3. Credit 3.
Prerequisite: Successful completion of course requirements in the core requirements. Three to nine hours of credit may be earned. This course may be taken independent of course work as a culminating experience for three hours credit or as a co-requisite for coaching courses in the coaching concentration for 1-4 hours of credit. Candidates are expected to complete a minimum of three clock hours per week per semester for each semester hour of credit. Participation in on-the-job experiences will be provided in a wide range of hosting agencies, institutions, and clinics. Requirements for course completion will vary depending on the number of credit hours to be earned.

Motion. Dr. Killman moved to approve the changes effective Fall 2015. The motion was seconded by Dr. Anderson and carried.

17. Approval of Program of Study for ETSU/TTU Joint BSE degree in Engineering from the College of Engineering

In a memorandum dated February 26, 2015, approval was requested for the following:

A THEC/TBR Letter of Intent (LOI) for a joint degree program with ETSU for a Bachelor of Science in Engineering degree (BSE) was presented to the UCC last year as an information item. The LOI was subsequently approved by TBR & THEC (Jan., 2015), and is now awaiting the submission of the Final Proposal. In preparation for this submission, the Program of Study (curriculum) for the joint BSE degree is being submitted to the UCC for approval. A copy of the proposed degree program is attached, along with a copy of the THEC/TBR approved LOI.

Executive Summary:
This joint degree proposal will allow students at both TTU and ETSU to earn a Bachelor of Science in Engineering degree (BSE) by taking courses at either or both institutions via a mixture of on-ground classes and distance-learning (simultaneous interactive video tele-conferencing of on-ground classes). The program offers three concentration areas to students: (1) General Engineering, (2) Engineering Management, and (3) Construction Management. The program will start in Fall, 2016, with its first graduates in Spring, 2020. ABET accreditation of the program will be sought in Fall, 2020.

Note: Program of Study, THEC/TBR LOI on file in the Provost's Office.

Motion. Dr. Hoy moved to approve the program of study. The motion was seconded by Dr. Frye. Dr. Anderson requested that on page 31 of the LOI, M.S. in Home Economics be changed to M.S. in Human Ecology. Dr. Hoy accepted this as a friendly amendment. A vote was taken and the motion carried.

18. Approval of course additions fro the ETSU/TTU Joint BSE Degree Program from Basic Engineering
In a memorandum dated February 17, 2015, approval was requested for the following:

Course Additions:
ENGR 3120 Solid Modeling Lec. 2. Lab. 2. Credit 3.
Prerequisite: ENGR 1110, CEE 3110 (CEE 3110 may be taken concurrently.)
Introduction to computer-aided 3D solid modeling.

ENGR 4510 Engineering Management Lec. 3. Credit 3.
Prerequisite: Senior standing in an engineering discipline.
Management theory applied to engineering and technical organizations. Topics include management functions in an engineering context; engineering techniques and tools for management; project management; management/leadership of technical people and teams; and contemporary engineering management topics, e.g., rapid technological change and globalization.

ENGR 4900 Professionalism and Ethics. Lec. 3. Credit 3.
Prerequisite: Senior Standing. Professional, social and ethical issues in engineering practice.

ENGR 4950 Senior Design I. Lec. 2. Lab. 4. Credit 3.
Prerequisite: ECE 2020, ME 3023, ME 3210, Senior Standing.
The first is a sequence of two capstone design project courses. Student teams will complete an industry client-driven system design project. Teamwork, leadership, project planning and management, specification, budgeting, design review, subsystem development, testing, weekly reporting, documentation, and oral presentation.

ENGR 4960 Senior Design II. Lec. 2. Lab. 4. Credit 3.
Prerequisite: ENGR 4950. The second in a sequence of two senior capstone design project courses. Student teams will complete an industry client-driven system design project. Teamwork, leadership, project planning and management, specification, budgeting, design review, implementation, testing, weekly reporting, documentation, and oral presentation.

Motion. Dr. Hoy moved to approve the additions effective Fall 2016. The motion was seconded by Dr. Stein and carried.

19. Approval of Course Additions, Changes and Curriculum Changes from the Department of Physics
In a memorandum dated February 23, 2015, approval was requested for the following:

Course Additions:
PHYS 2109 – Calculus-Based Physics I Lec. 3. Credit 3.
Prerequisite: MATH 1920. (May be taken concurrently.) Introduction to classical mechanics and mechanical waves. A student may not earn credit in both PHYS 2109 and any of PHYS 1310, PHYS 2010 and PHYS 2110.

PHYS 2119 – Calculus-Based Physics II Lec. 3. Credit 3.
Prerequisite: PHYS 2109 or PHYS 2110, MATH 2110 or MATH 2120 (MATH 2110 or MATH 2120 may be taken concurrently). Introduction to classical electromagnetism and optics. A student may not earn credit in both PHYS 2119 and any of PHYS 1310, PHYS 2020 and PHYS 2120.

Course Changes
Change of PHYS 2110 and PHYS 2120 to combined 4 credit lecture+ lab courses.

From:
PHYS 2110 – Calculus-Based Physics I Lec. 3. Credit 3.
Prerequisite: MATH 1920. (May be taken concurrently.) Introduction to classical mechanics, mechanical waves and thermodynamics. A student may not earn credit in both PHYS 2010 and PHYS 2110 or in both PHYS 2020 and PHYS 2120. Credit will not be given for both PHYS 1310 and any of the above courses.

To:
PHYS 2110 – Calculus-Based Physics I w/ lab Lec. 3, Lab. 3. Credit 4.
Prerequisite: MATH 1920. (May be taken concurrently.) Introduction to classical mechanics and mechanical waves, with lab. A student may not earn credit in both PHYS 2110 and any of PHYS 1310, PHYS 2010, PHYS 2109 and PHYS 2111.

From:
PHYS 2120 – Calculus-Based Physics II Lec. 3. Credit 3.
Prerequisite: PHYS 2110 and either MATH 2110 or MATH 2120 (MATH 2110 or MATH 2120 may be taken concurrently) Introduction to classical electromagnetism and optics. A student may not earn credit in

both PHYS 2010 and PHYS 2110 or in both PHYS 2020 and PHYS 2120. Credit will not be given for both PHYS 1310 and any of the above courses.

To:
PHYS 2120 – Calculus-Based Physics II w/ lab Lec. 3, Lab. 3. Credit 4.
Prerequisite: Either (i) PHYS 2109 and PHYS 2111 or (ii) PHYS 2110 (w. lab.);, MATH 2110 or MATH 2120 (MATH 2110 or MATH 2120 may be taken concurrently). Introduction to classical electromagnetism and optics, with lab. A student may not earn credit in both PHYS 2120 and any of PHYS 1310, PHYS 2020, PHYS 2119 and PHYS 2121.

Changing pre/co-requisites and credit conditions for PHYS 2111 and PHYS 2121.
From:
PHYS 2111 – Calculus-Based Physics Laboratory I Lab 3. Credit 1.
Prerequisite: PHYS 2110. (May be taken concurrently.) Experiments in classical mechanics, mechanical waves and thermodynamics.

To:
PHYS 2111 – Calculus-Based Physics Laboratory I Lab 3. Credit 1.
Prerequisite: PHYS 2109. (May be taken concurrently.) Experiments in classical mechanics, and mechanical waves. A student may not earn credit in both PHYS 2111 and PHYS 2110 (w. lab.)

From:
PHYS 2121 – Calculus-Based Physics Laboratory II Lab. 3. Credit 1.
Prerequisite: PHYS 2111, PHYS 2120. (PHYS 2120 may be taken concurrently.) Experiments in classical electromagnetism and optics.

To:
PHYS 2121 – Calculus-Based Physics Laboratory II Lab. 3. Credit 1.
Prerequisite: PHYS 2110 (w. lab.) or PHYS 2111, PHYS 2119. (PHYS 2119 may be taken concurrently.) Experiments in classical electromagnetism and optics. A student may not earn credit in both PHYS 2121 and PHYS 2120 (w. lab.).

Change of descriptions for algebra-based physics courses.
From:
PHYS 2010 – Algebra-Based Physics I Lec. 3, Lab. 3. Credit 4.
Prerequisite: Background knowledge of high school algebra and geometry. Basic laws of classical mechanics and waves with elementary applications to familiar phenomena. A student may not earn credit in both PHYS 2010 and PHYS 2110. Credit will not be given for both PHYS 1310 and any of the above courses.

To:

PHYS 2010 – Algebra-Based Physics I Lec. 3, Lab. 3. Credit 4.
Prerequisite: Background knowledge of high school algebra and geometry. Basic laws of classical mechanics and waves with elementary applications to familiar phenomena. A student may not earn credit in both PHYS 2010 and any of PHYS 1310, PHYS 2109, or PHYS 2110.

From:
PHYS 2020 – Algebra-Based Physics II Lec. 3, Lab. 3. Credit 4.
Prerequisite: PHYS 2010. Basic laws of electromagnetism and light with elementary applications and brief introduction to modern physics. A student may not earn credit in both PHYS 2010 and PHYS 2110 or in both PHYS 2020 and PHYS 2120. Credit will not be given for both PHYS 1310 and any of the above courses.

To:
PHYS 2020 – Algebra-Based Physics II Lec. 3, Lab. 3. Credit 4.
Prerequisite: PHYS 2010. Basic laws of electromagnetism and light with elementary applications and brief introduction to modern physics. A student may not earn credit in both PHYS 2020 and any of PHYS 1310, PHYS 2119, or PHYS 2120.

Change of course description for PHYS 1310.
From:
PHYS 1310 – Concepts of Physics Lec. 2. Lab. 3. Credit 3.
Prerequisite: One semester of college-level mathematics (numbered 1000 or higher) and background knowledge of high school algebra and geometry. Selected topics from classical and modern physics with applications to familiar phenomena, including the environment. This course will not count as part of a physics sequence. A student may not earn credit in both PHYS 2010 and PHYS 2110 or in both PHYS 2020 and PHYS 2120. Credit will not be given for both PHYS 1310 and any of the above courses.

To:
PHYS 1310 – Concepts of Physics Lec. 2, Lab 3. Credit 3.
Selected topics from classical and modern physics with applications to familiar phenomena. This course will not count as part of a physics sequence. Credit will not be given for both PHYS 1310 and any of PHYS 2010, PHYS 2020, PHYS 2109, PHYS 2110, PHYS 2111, PHYS 2119, PHYS 2120, PHYS 2121.

Change of description for other PHYS courses.
From:
PHYS 2112 – General Physics I Honors Recitation Rec 1. Credit 0..
Corequisite: PHYS 2110. Selected topics to add depth to the understanding of material in PHYS 2110. Honors students can receive honors credit for PHYS 2110 by satisfactorily completing this course and obtaining a grade of A or B in PHYS 2110.

To:
PHYS 2112 – Calculus-Based Physics I Honors Recitation Rec 1. Credit 0..
Corequisite: PHYS 2109 or PHYS 2110. Selected topics to add depth to the understanding of material in PHYS 2109/2110. Honors students can receive honors credit for PHYS 2109/2110 by satisfactorily completing this course and obtaining a grade of A or B in PHYS 2109/2110.

From:
PHYS 2420 – Modern Physics Lec. 3. Credit 3.
Prerequisite: PHYS 2120. Introduction to modern physics. Topics include special relativity, quantum theory of light, wave nature of matter, Bohr's theory of the atom, quantum mechanics in one dimension. Selected topics from atomic, molecular, solid state, nuclear, and particle physics.

To:
PHYS 2420 – Modern Physics Lec. 3. Credit 3.
Prerequisite: PHYS 2119 or PHYS 2120. Introduction to modern physics. Topics include special relativity, quantum theory of light, wave nature of matter, Bohr's theory of the atom, quantum mechanics in one dimension. Selected topics from atomic, molecular, solid state, nuclear, and particle physics.

From:
PHYS 2920 – Mathematical Physics Lec. 3. Credit 3.
Prerequisite: PHYS 2120 and MATH 2110. Mathematical methods for classical and modern physics. Selected topics from vector analysis, complex analysis, and vector spaces, with emphasis on applications to physical systems. (PHYS 2120 and MATH 2110 may be taken concurrently)

To:
PHYS 2920 – Mathematical Physics Lec. 3. Credit 3.
Prerequisite: PHYS 2119 or PHYS 2120, MATH 2110. Mathematical methods for classical and modern physics. Selected topics from vector analysis, complex analysis, and vector spaces, with emphasis on applications to physical systems. (PHYS 2119 or PHYS 2120 and MATH 2110 may be taken concurrently)

From:
PHYS 4610 – Classical Electricity and Magnetism I Lec. 3. Credit 3.
Prerequisite: PHYS 2120, PHYS 2920, MATH 4510 (5510) and CSC 2110. (MATH 4510 (5510) and CSC 2110 may be taken concurrently). Theory of electrostatics, electrodynamics, Maxwell's Equations, and boundary value problems.

To:
PHYS 4610 – Classical Electricity and Magnetism I Lec. 3. Credit 3.
Prerequisite: PHYS 2119 or PHYS 2120, PHYS 2920, MATH 4510 (5510) and CSC 2110. (MATH 4510 (5510) and CSC 2110 may be taken concurrently). Theory of electrostatics, electrodynamics, Maxwell's Equations, and boundary value problems.

Motion. Dr. Robinson moved to approve the additions and changes effective Fall 2015. The motion was seconded by Dr. Hoy and carried.

20. Approval of Course Addition from the Department of English

In a memorandum dated February 13, 2015, approval was requested for the following:

Course Addition:

ENGL 3600. The Bible as Literature. Lec. 3. Credit 3. Prerequisite: ENGL 1010 and ENGL 1020 and one course from among ENGL 2130, ENGL 2230, and ENGL 2330 are prerequisites for all upper-division courses. The prerequisite for upper-division courses of ENGL 2130 or ENGL 2230 or ENGL 2330 is waived for ENGL and SEEN majors. This course examines the wide variety of genres and narratives that form the Bible—from the mythological and genealogical to the poetic and prophetic—and does this from critical, literary, cultural, and rhetorical perspectives.

Motion. Dr. Null, representing Dr. Pelton, moved to approve the addition effective Fall 2015. The motion was seconded by Dr. Eisen and carried.

21. Approval of Course Changes from the Department of Curriculum and Instruction

In a memorandum dated March 10, 2015, approval was requested for the following:

Course Changes:

From:

FOED 1820. Introductory Field Experience Credit 1.
Corequisite: FOED 2011. Observation and discussion of authentic educational settings appropriate for licensure area(s). For all licensure majors, not available for freshmen. A minimum grade of B is required to meet degree requirements.

To:

FOED 1820. Introductory Field Experience Lec. 1. Credit 1.
Corequisite: FOED 2011. Observation and discussion of authentic educational settings appropriate for licensure area(s). For all licensure majors, not available for freshmen. A minimum grade of B is required to meet degree requirements.

From:

FOED 1822. Introductory Field Experience and Orientation Credit 1.
Corequisite: FOED 2011.Observation and discussion of authentic educational settings appropriate for licensure area(s). For freshmen only. A minimum grade of B is required to meet degree requirements.

To:

FOED 1822. Introductory Field Experience and Orientation Lec.1.Credit 1.
Corequisite: FOED 2011.Observation and discussion of authentic educational settings appropriate for licensure area(s). For freshmen only. A minimum grade of B is required to meet degree requirements.

Motion. Dr. Wendt move to approve the changes effective Fall 2015. The motion was seconded by Dr. Groundland and carried.

22. Approval of Catalog Change from the College of Business

In a memorandum dated March 2, 2015, approval was requested for the following:

Use of MATH 1000 and READ 1010

The College of Business has maintained that credit toward all concentrations of the Bachelor of Science in Business Administration degree be of a level at or above the minimum required courses in a given discipline.

With that standard in mind, the College of Business Undergraduate Council requests the following notations be made:

MATH 1000 – does not count as credit toward BSBA degree completion, including as Elective

READ 1010 – does not count as credit toward BSBA degree completion, including as Elective

Motion. Ms. Galloway moved to approve the change effective Fall 2015. The motion was seconded by Dr. Mills and carried.

23. Approval of Course Changes from the Department of Accounting and Business Law

In a two memorandums dated March 2, 2015, approval was requested for the following:

Course Change:

From:
ACCT 2110 Principles of Financial Accounting Lec. 3, Credit 3
Prerequisite: Sophomore standing or consent of instructor. Fundamental principles and procedures of financial accounting and reporting.

To:
ACCT 2110 Principles of Accounting I Lec. 3, Credit 3
Prerequisite: Sophomore standing or consent of instructor. Fundamental principles and procedures of financial accounting.

From:
ACCT 2120 Principles of Managerial Accounting Lec. 3, Credit 3
Prerequisite: ACCT 2110. Fundamentals of managerial and cost accounting, and reporting principles and procedures.

To:
ACCT 2120 Principals of Accounting II Lec. 3, Credit 3
Prerequisite: ACCT 2110. Fundamental principles and procedures of financial and managerial accounting.

Motion. Dr. Rand moved to approve the changes. The motion was seconded by Ms. Galloway and carried.

24. Approval of Course Additions from the Department of Accounting and Business Law
In a memorandum dated March 2, 2015, approval was requested for the following:

Course Additions:
ACCT 4901 Special Topics Credit 1.
Prerequisite: Consent of Instructor and Department Chairperson. An advanced course concerning current topics in Accounting, Auditing, Taxation, and Business Law. Course may be taken more than once as topics change. Enrollment in junior or senior level accounting courses requires junior standing. All business majors must have completed the Basic Business Program.

ACCT 4902 Special Topics Credit 2.
Prerequisite: Consent of Instructor and Department Chairperson. An advanced course concerning current topics in Accounting, Auditing, Taxation, and Business Law. Course may be taken more than once as topics change. Enrollment in junior or senior level accounting courses requires junior standing. All business majors must have completed the Basic Business Program.

Motion. Dr. Rand moved to approve the additions. The motion was seconded by Dr. Stein.
In answering a question, Dr. Rand stated that the courses are repeatable. This was accepted as a friendly amendment by the seconder and the motion carried.

25. Approval of Course Change from the Department of Accounting and Business Law
In a memorandum dated March 2, 2015, approval was requested for the following:

Course Change:
From:
ACCT 4900 Special Topics Lec. 3. Credit 3.
Prerequisite: Consent of Instructor and Department Chairperson. An advanced course concerning current topics in Accounting, Auditing, Taxation, and Business Law. Course may be taken more than once as topics change. Enrollment in junior or senior level accounting courses requires junior standing. All business majors must have completed the Basic Business Program.

To:
ACCT 4900 Special Topics Credit 3.

Prerequisite: Consent of Instructor and Department Chairperson. An advanced course concerning current topics in Accounting, Auditing, Taxation, and Business Law. Course may be taken more than once as topics change. Enrollment in junior or senior level accounting courses requires junior standing. All business majors must have completed the Basic Business Program.

Motion. Dr. Rand moved to approve the change. The motion was seconded by Dr. Stein and carried.

26. Approval of Change in College of Business Elective Designation from the College of Business
In a memorandum dated February 24, 2015, approval was requested for the following:

The curriculum for the current majors and concentrations within the College of Business specify a number of hours of non-business electives. It is requested that these hours be changed in all of the majors and concentrations from specifically non-business electives to ~~guided~~ electives. These can come from either business or non-business disciplines. This will give our students greater flexibility in choosing the areas of interest they wish to develop.

Motion. Dr. Armstrong moved to approve the change effective Fall 2015. The motion was seconded by Ms. Galloway. A suggestion was made to delete the word "guided" (as shown above). This was accepted as a friendly amendment and the motion carried.

27. Approval of Course Changes from the Department of Chemical Engineering
In a memorandum dated March 2, 2015, approval was requested for the following:

Course Deletions:
CHE 2210. Chemical Engineering Laboratory I Lab. 3. Credit 4
Laboratory experiences with emphasis on measurement techniques and report writing.

CHE 3110. Transfer Science I Lec. 4. Credit 4
Prerequisite: CHE 2010 and MATH 2110. Principles, design and operation of systems for heat transfer and the transportation of fluids and solids.

CHE 3020. Chemical Engineering Thermodynamics II Lec. 3. Credit 3
Prerequisite: CHE 3010 or equivalent. Prediction of phase equilibrium, chemical equilibrium, and thermodynamic analysis of processes.

CHE 4110. Computational Heat, Mass and Momentum Transfer Lec. 3. Credit 3
Prerequisite: CHE 3110. General equations describing heat, mass, and momentum transport. Similarities and differences in transport properties are studied.

CHE 4241. Chemical Engineering Laboratory IVb Lab. 3. Credit 1
Prerequisite: CHE 4130. Laboratory experiences in biochemical engineering systems.

CHE 4810. Developing Areas in Chemical Engineering Lec. 1. Credit 1
Prerequisite: Senior standing in Chemical Engineering. Introduction to an emerging subject area in chemical engineering.

CHE 4950 (5950). Introduction to Microelectromechanical Systems (MEMS)
Cross-listing: ECE 4950 (5950), ME 4950 (5950). Lec. 3. Credit 3
Prerequisite: Senior standing in engineering or consent of instructor. Introduce the design, fabrication, and performance of MEMS devices. Topics include bulk and surface micromachining, photolithography, sensors, actuation systems, optical MEMS, and microcantilever based systems.

Course Changes:

CHE 4420. Process Design II

The current catalog entry for CHE 4420 reads: Prerequisite: CHE 4410. Continuation of Design I but with emphasis on complex chemical systems. Introduction to the use of computer-aided process simulation codes. 3.000 Credit hours. 3.000 Lecture hours.

The proposed change would modify this course description to read:
Prerequisite: CHE 4410. Continuation of Design I but with emphasis on complex chemical systems and innovation in design. Introduction to process modeling the use of computer-aided process design and analysis. 3.000 Credit hours. 2.000 Lecture hours + 1.000 Lab hour

CHE 4240. Chemical Engineering Capstone Laboratory

The current catalog entry for CHE 4240 reads: Lab. 3. Credit 1. Prerequisite: CHE 3730. Laboratory experiences in typical chemical engineering systems. Experiments are designed to integrate the fundamental topics with applications from several subject areas.

The proposed change would change the name of the course to Chemical Engineering Capstone Project with the following modified description: Prerequisites: Senior Standing* or consent of the Instructor. Project serves as a culminating experience for the student. Project content varies depending on the interests of the student, project team, and project sponsors. Projects serve to integrate junior and senior level coursework, promote an understanding of team dynamics and the development of project management skills.

*Senior Standing in Chemical Engineering: Transfer Science I, II, III; Thermodynamics, Process Design I; Organic Chemistry I, II; Chemical Reaction Engineering. Senior Standing by cumulative credit hours is not adequate.

Curriculum Additions and Changes:

CHE 3010 Thermodynamics of Chemical Processes currently has CHEM 1120 and MATH 1920 as prerequisites

We propose that CHE 3010 Thermodynamics of Chemical Processes have prerequisites listed as CHEM 1120, MATH 1920 and **CHE 1520**

CHE 3121 Transfer Science II: Fluid Mechanics currently has prerequisites of CHE 3111 and MATH 2110
We propose that CHE 3121 Transfer Science II: Fluid Mechanics have prerequisites of MATH 2110 and **CHE 2020 and co-requisite of MATH 2120**

CHE 2020 Introduction to Chemical and Biological Process Analysis and Scaling II currently has prerequisites of ENGR 1120, CHEM 1120, MATH 1910
We propose that CHE 2020 Introduction to Chemical and Biological Process Analysis and Scaling II have ENGR 1120, CHEM 1120, and **MATH 1920 as a prerequisite**

CHE 3730 Chemical Engineering Operations currently has a prerequisite of CHE 1510
We propose that CHE 3730 Chemical Engineering Operations have **CHE 1520 as a prerequisite**

CHE 3111 Transfer Science I currently has prerequisites of CHE 2010 and MATH 2110
We propose that CHE 3110 Transfer Science I have **CHE 2020, MATH 1920, MATH 2120 as prerequisites**

CHE 4131 Transfer Science III: Diffusion and Mass Transport currently has CHE 2011, CHE 3111 and CHE 3121 as prerequisites
We proposed that CHE 4131 Transfer Science III: Diffusion and Mass Transport have **CHE 2020, CHE 3111, CHE 3121, CHE 3020, CHE 3021 as prerequisites**

CHE 4210 Chemical Reaction Engineering currently has CHE 3021 listed as a prerequisite
We propose that CHE 4210 Chemical Reaction Engineering have **CHE 3021 and CHE 3121** as prerequisites

CHE 4410 Process Design I currently has CHE 3121 as a prerequisite
We propose CHE 4410 Process Design I have CHE 3121, CHE 3020 and CHE 3021 as prerequisites

All CHE 4xxx electives will now **require senior standing** (ChE 4510, ChE 4660, ChE 4470, ChE 4300, ChE 4330, ChE 4972, ChE 4973)

- CHE 1520 Introduction to Chemical and Biological Process Analysis and Scaling I currently has CHEM 1120 and MATH 1910 as prerequisites
  We propose CHE 1520 Introduction to Chemical and Biological Process Analysis and Scaling I will now have **MATH 1920 as a co-requisite**

- CHE 4300 Introduction to Air Pollution currently has CHE 3110 as a prerequisite
  We propose CHE 4300 Introduction to Air Pollution have CHE 3111, CHE 3121 and CHE 4131 as prerequisites

- CHE 4240 Chemical Engineering Capstone Project currently has CHE 3730 as a prerequisite
  We propose CHE 4240 Chemical Engineering Capstone Project have CHE 3111, CHE 3121, CHE 4131, CHE 3020 and CHE 3021 as prerequisites

- CHE 4540 Process Dynamics and Control currently has CHE 3121 and MATH 2120 as prerequisites
  We propose CHE 4540 Process Dynamics and Control have CHE 3111, CHE 3121, CHE 4131 and CHE 4210 as prerequisites

Motion. Dr. Hoy moved to approve the deletions and changes effective Fall 2015. The motion was seconded by Dr. Stein and carried.

28. Approval of Course Deletions and Changes from the Department of Computer Science
In a memorandum dated March 2, 2015, approval was requested for the following:

Course Deletions:
CSC 1020 First –Year Connections
CSC 1070 Elementary Programming
CSC 1100 Introduction to Computing

Course Changes:
From:
CSC 4750 Computer Graphics

To:
CSC 4750(5750) Computer Graphics

From:
CSC 4760 Parallel Programming

To:
CSC 4760(5760) Parallel Programming

Motion. Dr. Hoy moved to approve the deletions and changes effective Fall 2015. The motion was seconded by Dr. Stein and carried.

29. Approval of Course Changes from the Department of Electrical and Computer Engineering
In a memorandum dated February 23, 2015, approval was requested for the following:

Course Changes:
From:
ECE 4020 (5020) - DIGITAL SIGNAL PROCESSING

Lec. 3. Credit 3.
Prerequisite: ECE 3020 and ECE 3120. (ECE 3120 may be taken concurrently.) Introduction to the theory and practice of discrete-time signals and systems, A/D and D/A conversion, filter design, DSP Architecture and implementation, programming, DSP applications.

To:
ECE 4020 (5020) - DIGITAL SIGNAL PROCESSING Lec. 3. Credit 3.
Prerequisite: ECE 3020 and ~~ECE 3120~~ ECE 3130. (~~ECE 3120~~ ECE 3130 may be taken concurrently.) Introduction to the theory and practice of discrete-time signals and systems, A/D and D/A conversion, filter design, DSP Architecture and implementation, programming, DSP applications.

From:
ECE 4120 (5120) - FUNDAMENTALS OF COMPUTER DESIGN Lec. 3. Credit 3.
Prerequisite: ECE 3120 and ECE 4110 (5110). Continuation of digital system design concepts and applications with emphasis on computer hardware design: CPU sequencers, arithmetic/logic units, fixed and floating point arithmetic implementations, and computer peripheral interfacing, utilizing programmable logic.

To:
ECE 4120 (5120) - FUNDAMENTALS OF COMPUTER DESIGN Lec. 3. Credit 3.
Prerequisite: ~~ECE 3120~~ ECE 3130 and ECE 4110 (5110). Continuation of digital system design concepts and applications with emphasis on computer hardware design: CPU sequencers, arithmetic/logic units, fixed and floating point arithmetic implementations, and computer peripheral interfacing, utilizing programmable logic.

From:
ECE 4140 - EMBEDDED SYSTEM DESIGN Lec. 2. Lab. 3, Credit 3.
Prerequisite: ECE 3120, ECE 3160, and CSC 2100. Basic hardware and software concepts in the analysis and design of embedded systems, peripheral interfaces and performance analysis with hands-on design project

To:
ECE 4140 - EMBEDDED SYSTEM DESIGN Lec. 2. Lab. 3, Credit 3.
Prerequisite: ~~ECE 3120~~ ECE 3130, and ECE 3160~~, and CSC 2100~~. Basic hardware and software concepts in the analysis and design of embedded systems, peripheral interfaces and performance analysis with hands-on design project.

From:
ECE 4370 (5370) - MECHATRONICS AND INTELLIGENT MACHINES ENGINEERING
Cross-listing: ME 4370 (5370) Lec. 2. Lab. 2. Credit 3.
Prerequisite: ECE 3120 and ECE 3160. Mechatronics; number systems; microcontroller technology and architecture of 8-bit microcontrollers (e.g. Motorola MC68HC110); assembly language programming;

A/D and D/A conversion; parallel I/O; programmable timer operation; interfacing sensors and actuators; applications; and team project on design and implementation of a mechatronic system.

To:
ECE 4370 (5370) - MECHATRONICS AND INTELLIGENT MACHINES ENGINEERING
Cross-listing: ME 4370 (5370) Lec. 2. Lab. 2. Credit 3.
Prerequisite: ~~ECE 3120~~ ECE 3130 and ECE 3160. Mechatronics; number systems; microcontroller technology and architecture of 8-bit microcontrollers (e.g. Motorola MC68HC110); assembly language programming; A/D and D/A conversion; parallel I/O; programmable timer operation; interfacing sensors and actuators; applications; and team project on design and implementation of a mechatronic system.

From:
ECE 2010 - Electric Circuits I Lec. 3. Credit 3.
Prerequisite: MATH 1920, MATH 2010 and MATH 2120 (MATH 2010 and/or MATH 2120 may be taken concurrently). Introduction to electric circuit quantities and components, systematic application of Ohm's and Kirchhoff's laws, superposition, Thévenin and Norton theorems, operational amplifiers, RL and RC transients, and circuit simulation with SPICE.

To:
ECE 2010 - Electric Circuits I Lec. 3. Credit 3.
Prerequisite: MATH 1920, MATH 2010 and MATH 2120 (~~MATH 2010 and/or~~ MATH 2120 may be taken concurrently). Introduction to electric circuit quantities and components, systematic application of Ohm's and Kirchhoff's laws, superposition, Thévenin and Norton theorems, operational amplifiers, RL and RC transients, and circuit simulation with SPICE.

Motion. Dr. Johnson moved to approve the changes effective Fall 2015. The motion was seconded by Dr. Stein and carried.

30. Approval of Curriculum Change from the Department of Manufacturing and Engineering Technology

In a memorandum dated March 2, 2015, approval was requested for the following:

Curriculum Change:
FROM: MET 4990 – Special Problems Lec. 2. Lab. 2. Credit 3.
Prerequisite: Senior standing. Investigations of industrial topics in the students area of interest. May be taken under different subtitles to a maximum of six credits. A particular topic may be offered at most twice under the MET 4990 number.

TO: MET 4990 (5990) – Special Problems Lec. 2. Lab. 2. Credit 3.
Prerequisite: Senior standing. Investigations of industrial topics in the students area of interest. May be taken under different subtitles to a maximum of six credits. A particular topic may be offered at most

twice under the MET 4990 (5990) number. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

Motion. Dr. Hoy moved to approve the change effective Fall 2015. The motion was seconded by Dr. Jeff Roberts and carried.

31. Approval of Course and Curriculum Changes to ME Mechatronics Concentration from the Department of Mechanical Engineering

In a memorandum dated March 11, 2015, approval was requested for the following:

Course Changes:

From:

ME 3023**:** Measurements in Mechanical Systems Lec. 2. Lab. 2. Cr. 3.
Prerequisites: ECE 2010, PHYS 2120, PHYS 2121, CEE 3110 (CEE 3110 may be taken concurrently). Principles of measurement and calibration; basic instrumentation and measurement techniques in mechanical systems.

To:

ME 3023**:** Measurements in Mechanical Systems Lec. 2. Lab. 2. Cr. 3.
Prerequisites: ECE 2010, PHYS 2120, PHYS 2121 (or ECE 2011 for ME Mechatronics Concentration), CEE 3110 (CEE 3110 may be taken concurrently). Principles of measurement and calibration; basic instrumentation and measurement techniques in mechanical systems.

From:

ME 4370 (5370): Mechatronics and Intelligent Machines Engineering Lec. 2. Lab. 2. Cr. 3.
Prerequisite: ECE 2010, PHYS 2121; ME 3050 and ME 3060. Mechatronics; number systems; microcontroller technology and architecture of 8-bit microcontrollers (e.g. Motorola MC68H110), assembly language programming, A/D and D/A conversion, parallel I/O; programmable timer operation, interfacing sensors and actuators, applications, and team project on design and implementation of a mechatronic system.

To:

ME 4370 (5370): Mechatronics and Intelligent Machines Engineering Lec. 2. Lab. 2. Cr. 3.
Prerequisite: ECE 2010, PHYS 2121 (or ECE 2011 for ME Mechatronics Concentration); ME 3050 and ME 3060. Mechatronics; number systems; microcontroller technology and architecture of 8-bit microcontrollers (e.g. Motorola MC68H110), assembly language programming, A/D and D/A conversion, parallel I/O; programmable timer operation, interfacing sensors and actuators, applications, and team project on design and implementation of a mechatronic system.

Curriculum Change:

From:

PHYS 2121 Calculus-Based Physics Laboratory II (1 cr. Hr)

To:
ECE 2011 Electrical Engineering Laboratory I (1 cr. Hr)

Motion. Dr. Rao moved to approve the changes effective Fall 2015. The motion was seconded by Dr. Johnson and carried.

32. Approval of Course Changes from the Department of Mechanical Engineering
In a memorandum dated March 11, 2015, approval was requested for the following:

Course Changes:
From:
ME 4444**:** Senior Design Project Lec. 2. Lab. 4. Cr. 4.
Prerequisite: ME 3050, ME 3060, ME 3900, ME 4751; and ME 4020 (5020) as a prerequisite with ME 4720 as a corequisite, or ME 4720 as a prerequisite with ME 4020 (5020) as a corequisite. Capstone group design project in mechanical engineering.

To:
ME 4444**:** Senior Design Project Lec. 2. Lab. 4. Cr. 4.
Prerequisite: ME 4020 (5020) or ME 4720. Capstone group design project in mechanical engineering.

From:
ME 4720**:** Thermal Design Lec. 3. Cr. 3.
Prerequisite: ME 3220, ME 3710, and ME 3720. Introduction to the design of thermofluid devices and systems; general design methodology, modeling, simulation, and optimization; and heat exchangers and prime movers in systems.

To:
ME 4720: Thermal Design Lec. 3. Cr. 3.
Prerequisite: ME 3900, ME 3220, ME 3710, and ME 3720. Introduction to the design of thermofluid devices and systems; general design methodology, modeling, simulation, and optimization; and heat exchangers and prime movers in systems.

From:
ME 4020**:** Applied Machine Design Lec. 2. Lab 2. Cr. 3.
Prerequisite: ME 4010. Design for strength and rigidity under dynamic loads; shaft design; design of joints (threaded fasteners, welds, springs, keys, etc.); design of gear trains; lubrication and bearing design; finite element analysis; and optimization, and statistical consideration in design.

To:
ME 4020 Applied Machine Design Lec. 2. Lab 2. Cr. 3.

Prerequisite: ME 3610 and ME 4010. Design for strength and rigidity under dynamic loads; shaft design; design of joints (threaded fasteners, welds, springs, keys, etc.); design of gear trains; lubrication and bearing design; finite element analysis; and optimization, and statistical consideration in design.

From:
ME 4010**:** Machine Design Lec. 3. Cr. 3.
Prerequisite: CEE 3110, ME 3010 and ME 3610. Tools of machine design; stress strain and deformation of machine parts; inherent properties of machine parts; design of machine parts for strength; design of machine parts for rigidity. ME 3610 may be taken concurrently.

To:
ME 4010 Machine Design Lec. 3. Cr. 3.
Prerequisite: CEE 3110, ME 2330 and ME 3010. Tools of machine design; stress strain and deformation of machine parts; inherent properties of machine parts; design of machine parts for strength; design of machine parts for rigidity.

From:
ME 3050**:** Dynamic Modeling and Controls Lec. 3. Cr. 3.
Prerequisite: MATH 2120, ME 2330 ME 3023, and ME 3001 (ME 3001 may be taken concurrently). Corequisite: ME 3060. Modeling and simulation of lumped parameter systems, mechanical, electrical, thermal, fluid, and/or mixed, stability, time and frequency response; vibration applications; control algorithms.

To:
ME 3050 Dynamic Modeling and Controls Lec. 3. Cr. 3.
Prerequisite: ME 2330, ME 3023, and ME 3001. Corequisite: ME 3060. Modeling and simulation of lumped parameter systems, mechanical, electrical, thermal, fluid, and/or mixed, stability, time and frequency response; vibration applications; control algorithms.

From:
ME 3010**:** Materials and Processes in Manufacturing Lec. 3. Cr. 3.
Prerequisite: CEE 3110, CHEM 1010 or CHEM 1110. Processing/microstructure/property interrelations; heat treatment of steels and alloys; overview of manufacturing processes; interrelations among materials, design and manufacturing; and introduction to material selection. CEE 3110 may be taken concurrently.

To:
ME 3010 Materials and Processes in Manufacturing Lec. 3. Cr. 3.
Prerequisite: CHEM 1010 or CHEM 1110. Processing/microstructure/property interrelations; heat treatment of steels and alloys; overview of manufacturing processes; interrelations among materials, design and manufacturing; and introduction to material selection.

Motion. Dr. Rao moved to approve the changes effective Fall 2015 w/ PHYS 2120 changed to PHYS 2119. The motion was seconded by Dr. Hoy and carried.

33. Approval of Course Additions and Minor from the School of Interdisciplinary Studies
In a two memorandums dated March 11, 2015, approval was requested for the following:

Course Additions:
LIST 2300: Academic and Community Connections Lec. 1, Credit 1.
Prerequisite: None.
The purpose of this course is to introduce students to concepts and practices that positively affect academic and community engagement. Understanding that the student athlete experience has some unique aspects, the course emphasizes the tools and practices that can positively affect this experience. The course will include both in-class sessions led by various presenters, and an outside-of-class service-learning component. May be repeated up to 4 times.
Effective date – Summer 2015

LIST 3210: Youth Studies Lec 3, Credit 3.
Prerequisite: None.
The course will examine theories of factors associated with positive and negative outcomes in children and adolescents. Special attention will be given to resilience factors that help overcome adversity. Students will be able to explain and implement best practices in intervening to enhance the development of positive outcomes for children and adolescents.
Effective date – Fall 2015

LIST 3220: Intimate Relationships Lec 3, Credit 3.
Prerequisite: None.
The course will examine the social, cognitive, emotional, and physical factors of intimate relationships. The attachment relationships examined will range from parent-child bonds to friendships to marriage. Emphasis will be placed on sexuality, and students will be able to understand the physiological components of sexual expression as well as be able to articulately and respectfully discuss competing historic and contemporary social views related to intimate relationships.

Motion. Dr. Frye moved to approve the additions effective as shown above. The motion was seconded by Dr. Eisen and carried.

Minor in Religious Studies
A minor/emphasis area in Religious Studies will consist of

- HIST 1110 (World Civilizations I) Credit: 3
- RELS 2010 (Introduction to Religious Studies) Credit: 3.

At least six credits from the list below:

- ENGL 3600 (Bible as Literature – currently in development)
- HIST 4330-4339 (Studies in Religious History) Credit: 3
- HIST 4520 (Medieval Europe) Credit: 3
- HIST 4530 (Renaissance and Reformation) Credit: 3
- HIST 4730 (Modern Middle East) Credit: 3
- PHIL 3010 (Philosophy of Religion) Credit: 3
- RELS 4093 (Topics in Religious Studies) Credit: 3

Three credits from the following list of courses OR from the previous list:

- ASTR 1010 (Introduction to Modern Astronomy) Credit: 4
- BIOL 1010 (Introduction to Biology I) Credit: 4
- ENGL 2330 (World Literature) Credit: 3
- ENGL 3500 (Mythology) Credit: 3
- GEOL 1040 (The Dynamic Earth) Credit: 4
- HEC 3565 (End of Life Applications) Credit: 3 (new course beginning Fall 2015)
- HIST 1120 (World Civilization II) Credit: 3
- NURS 3010 (Managing the End of Life) Credit: 1
- NURS 3020 (Spirituality and Healthcare) Credit: 1
- NURS 3030 (Cultural Sensitivity in Healthcare) Credit: 1
- SOC 4120 (Death and Dying) Credit: 3
- PHIL 2250 (Ethics) Credit: 3

Substitutions to the optional list are possible but require advisor approval and petition

Motion. Dr. Frye moved to approve the minor. The motion was seconded by Dr. Jeff Roberts and carried.

34. Approval of Course and Curriculum Changes from the School of Human Ecology

In a memorandum dated February 28, 2015, approval was requested for the following:

Course Changes:

From:
HEC 4200 (5200) Advanced Nutrition Lec.3. Credit.3.

To:
HEC 4200 Advanced Nutrition Lec.3. Credit 3.

From:
HEC4220 (5220) Research in Food Science and Nutrition Lec.2. Credit.2.

To:
HEC 4220 Research in Food Science and Nutrition Lec 2.Credit2.

From:
HEC 4242 (5242) Food Systems Administration Lec.3.Credit3.

To:
HEC 4242 Food Systems Administration Lec.3. Credit 3.

From:
HEC 4250 (5250) Field Experience in School Food Service Lab. 4. Credit.4.
Prerequisite: HEC 3240 and HEC 4242 (5242). Work experience in school food service management. Supervision by instructor and Tennessee –certified School Food Service Supervisor. See the HEC 4990 (5990) Internship manual, additional information section, regarding criteria including student eligibility and responsibilities and work requirements, for HEC internships and field experiences.

To:
HEC 4250 Field Experience in School Food Service Credit 6.
Prerequisite: HEC 3240 and HEC 4242. Supervised work experience in a school food service setting under the direction of a Certified School Food Service Supervisor.

From:
HEC 4271 (5271) Medical Nutrition Therapy Lec.3.Credit.3
Prerequisite: HEC 3270. Prerequisite or corequisite: HEC 4200(5200). Medical nutrition therapy and nutritional status assessment.

To:
HEC 4271 Medical Nutrition Therapy Lec.3. Credit.3.
Prerequisite: HEC 3270. Prerequisite or corequisite: HEC 4200. Medical nutrition therapy and nutritional status assessment.

From:
HEC 4272 Clinical Dietetics Lec.3. Credit.3.
Prerequisite: HEC 4200(5200), HEC 4271 (5271), HEC major, and senior standing. Application of medical nutrition therapy in a supervised environment and practice setting.

To:
HEC 4272 Clinical Dietetics Lec.3. Credit.3.
Prerequisite: HEC 4200, HEC 4271, HEC major, and senior standing. Application of medical nutrition therapy in a supervised environment and practice setting.

From:
HEC 4990 (5990) Internship Credit 3,6,8,12

To:
HEC 4900 Internship Credit 3,6,8,12

From:
HEC 4600 Theories in Family Development and Relationships Lec. 3. Credit 3.
Prerequisite B in HEC 3700 or consent of instructor. Examination of existing theoretical frameworks to provide a context for understanding contemporary families in the complex social world. Family development and relationships, diversity in contemporary settings is emphasized; application of a framework in analysis of interaction and the dynamics of families.

To:
HEC 4600 Theories in Family Development and Relationships Lec.3. Credit.3.
Prerequisite: HEC Major/ Junior or senior classification
Development, relationships, and influencing factors in the eight stages of the family life cycle and diversity of family contexts in contemporary society.

From:
HEC 4610 (6610) Families: Normative/Catastrophic Issues Lec.3. Credit.3.
Cross Listing CFS 6610

To:
HEC 4610 Families: Normative/Catastrophic Issues Lec.3. Credit.3.

From:
HEC 4610 Families: Normative/Catastrophic Issues Lec.3.Credit.3.
Prerequisite: Junior or Senior Standing; HEC 2060. In depth study of family stress and effective coping mechanisms that relate to normative transitions and crisis events. Preparation for internships.

To:
HEC 4610 Families: Normative/Catastrophic Issues Lec.3.Credit.3.
Prerequisite: Junior or Senior Standing; HEC 2065. In depth study of family stress and effective coping mechanisms that relate to normative transitions and crisis events.

From:
HEC 4940(5940) Nutrition, Fitness and Wellness Lec.2. Credit.2.
Basic principles of wellness promotion through exercise and nutrition; assessment and intervention strategies are included. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

To:
HEC 4940 Nutrition, Fitness and Wellness Lec.2. Credit.2.
Basic principles of wellness promotion through exercise and nutrition: assessment and intervention strategies are included.

From:
HEC 3500 Development: Middle Childhood/Adolescence Lec.3.Credit.3.
Basic principles of child development from ten to eighteen years.

To:
HEC 3500 Development: Middle Childhood/Adolescence Lec.3.Credit.3.
Basic principles of child development from ten-eighteen years including the prevalence, etiology, and psychosocial factors that contribute to challenges in adolescent development and impact on family and society.

From:
HEC 4993: Field Experience- Environmental Health Science Credit 6.
Prerequisite: HEC 4242 (5242), HEC major, senior standing. Supervised work experience with an Environmental Health Science professional for application of sanitation, inspection, disease control, and quality control skills. Course may be repeated one time.

To:
HEC 4993: Field Experience- Environmental Health Science Credit 6.
Prerequisite: HEC 4242, HEC major, senior standing. Supervised work experience with an Environmental Health Science professional for application of sanitation, inspection, disease control, and quality control skills. Course may be repeated one time.

From:
HEC 4994- Field Experience – Health Care Credit3.
Prerequisite: HEC 4242 (5242), HEC 4272 and senior standing. Supervised work experience in a health care facility to develop medical nutrition therapy skills. Course may be repeated one time.
See the HEC 4990(5990) Internship Manual, additional information section, regarding criteria including student eligibility and responsibilities and work requirement for HEC internships and field experiences.

TO:
HEC 4994- Field Experience – Health Care Credit3.
Prerequisite: HEC 4242, HEC 4272 and senior standing. Supervised work experience in a health care facility to develop medical nutrition therapy skills. Course may be repeated one time.

From:
HEC 4995 Field Experience – Food Systems Credit 6.

Prerequisite: HEC 4242 (5242), HEC major, senior standing, Supervised work experience in a food related organization for application of food service, inspection, or quality control skills. Course may be repeated one time.

TO:
HEC 4995 Field Experience – Food Systems Credit 6.
Prerequisite: HEC 4242, HEC major, senior standing, Supervised work experience in a food related organization for application of food service, inspection, or quality control skills. Course may be repeated one time.

Curriculum Changes:
From:
EXPW 2150 Human Sexuality Lec. 3. Credit.3.
To:
HEC 3565 End of Life Applications for Children and Families Lec.3.Credit.3.

From:
SOC 3650 Juvenile Delinquency

To:
HEC 3290 Nutrition through the Lifespan

Motion. Dr. Anderson moved to approve the changes effective Fall 2015. The motion was seconded by Dr. Groundland and carried.

35. Information Only – Revisions to Undergraduate Degree Requirements
Ms. Winningham presented the following information regarding revisions to be made in the next edition of the catalog.

With the process of creating policy for the baccalaureate degree requirements and the posting of minors in December, we have reviewed the information provided in the current Undergraduate Catalog for degree requirements. I would like to present as an informational item the changes that we will be making with the next edition of the catalog. Deletions will display as text that has been struck through and additions will be in red text. We will also change the title of this section from *University Requirements for a Baccalaureate Degree* to *Undergraduate Degree Requirements.*

See Attachment for Revisions

36. Election of 2015-16 Chairperson
Dr. Anderson, representing the nomination committee of Dr. Baker, Dr. Boles and herself, presented the nomination of Dr. Allan Mills to serve as the 2015-16 chairperson.

Motion. Dr. Anderson moved to close nominations and Dr. Mills was elected by Acclamation.

37. Other Such Matters

Informational Item – Sociology and Political Science Course Number Change

In a memorandum dated March 31, 2015, the following course number change was requested. The course was approved at the February 12, 2015 meeting.

From:

CJ/SOC 4910 Geographic Information Applications in the Social Sciences

To:

CJ/SOC 4911 Geographic Information Applications in the Social Sciences

Approval of Course Changes from the Department of Foreign Languages

In a memorandum dated March 17, 2015, approval was requested for the following:

Course Change:

From:

FLST 2520. The Cultures and Peoples of North Africa. Lecture: 3. Credit: 3.
Prerequisites: None. This course is an introduction to the culture, politics, geography, diversity, arts, social structures, and history of Morocco, Algeria, and Tunisia. Credit will not be given for both FLST 2520 and FLST 3520.

To:

FLST 2520. The Cultures and Peoples of North Africa. Lecture: 3. Credit: 3.
Prerequisites: None. This course is an introduction to the culture, politics, geography, diversity, arts, social structures, and history of selected nations of North Africa. Credit will not be given for both FLST 2520 and FLST 3520.

Motion. Dr. Groundland moved to approve the change. The motion was seconded by Dr. Stein and carried.

Approval of Minor from the Department of Communication

In a memorandum dated October 10, 2014, approval was requested for the following:

Minor in Speech Communication

From:

Curriculum:

A minor in Speech Communication will consist of:

- SPCH 2410 - Introduction to Speech Communication Credit: 3. Or
- PC 2500 - Communicating in the Professions Credit: 3.

At least 4 courses from the following:

- SPCH 3620 - Intercultural Communication Credit: 3.
- SPCH 3630 - Discussion and Parliamentary Procedure Credit: 3.

- SPCH 3120 - Visual Communication/Rhetoric Credit: 3.
- SPCH 3130 - Speech Activities Credit: 3.
- SPCH 3610 - Foundations of Speech Credit: 3.
- SPCH 4410 - Organizational Communication Credit: 3.
- SPCH 4630 (5630) - Persuasion Credit: 3.
- SPCH 4430 (5430) - Interpersonal Communication Credit: 3.
- LING 4440

Note:
Students who complete a minor in Speech Communication will receive a certificate from the Division of Communication, Department of English and Communications.

To:

Curriculum:

A minor in Speech Communication will consist of:

- SPCH 2410 - Introduction to Speech Communication Credit: 3. Or
- PC 2500 - Communicating in the Professions Credit: 3.

Additionally the minor will consist of 4 courses offered by the speech communication program, two of the courses must be upper division (3000 and above). LING 4440 - Semiotics: Code Systems and Language Theory can be applied to the minor in speech communication.

Note:
Students who complete a minor in Speech Communication will receive a certificate from the Speech Communication Division of the Communication Department.

Motion. Dr. Wilson moved to approve the change effective Fall 2015. The motion was seconded by Ms. Galloway and carried.

Music Item Removed from Table from February 12, 2015 Meeting

Dr. Baker made a motion to remove from the table curriculum changes #1 and #2, under agenda item #3, from the February 12, 2015 meeting. The motion was seconded by Dr. Wilson and carried.

On behalf of the committee, Dr. Huo acknowledged Dr. Craven for a job well done.

Dr. Hodum reminded the committee of other requirements to graduate – 36 upper division hours; minimum grade average, and 60 hours at senior institution.

The meeting adjourned at 4:30.

ATTACHMENT

~~University Requirements for a Baccalaureate Degree~~ Undergraduate Degree Requirements

Each student is personally responsible for completing all requirements established for his or her degree by the University, college, and department. It is the student's responsibility to inform himself or herself of these requirements. A student's advisor may not assume these responsibilities. Any substitution, waiver, or exemption from any established requirement or academic standard may be accomplished only with appropriate approval.

In addition to the requirements listed below, other requirements for a given degree and major may be determined by consulting the portion of the catalog devoted to the particular college or school offering the degree. International students must fulfill all requirements but should consult the special provisions described in Admission of International Students: Undergraduate Study of this catalog.

1. **General Education Requirements:** 41 semester hours selected from courses in 6 categories (see table below).

   General education, the foundation of the undergraduate collegiate experience, encompasses the knowledge, skills, attitudes, and values that are obtained from studies in communication, mathematics, social and natural sciences, and humanities. General education is unbounded by academic disciplines and honors the relationships among bodies of knowledge. General education develops the cognitive process of reasoning essential for effective functioning and self-directed learning. General education provides opportunities for the student:

   - to think logically, critically, and creatively;
   - to communicate effectively both orally and in writing;
   - to read extensively and perceptively;
   - to explore moral and aesthetic values, social relationships, and critical thinking through the humanities;
   - to understand the importance of key social institutions, ethics and values, and how individuals influence events and function with others in these institutions throughout the world;
   - to appreciate creative and aesthetic expressions along with their impact on individuals and cultures;
   - to express, define, and logically explore questions about the world through mathematics;
   - to use computer technology to communicate and to solve problems;
   - to use acquired facts, concepts, and principles of the physical and natural sciences in applying the scientific process to natural phenomena;
   - to perceive the importance of wellness and values in human life;
   - to manifest a commitment to life long learning.

   These outcomes will be acquired in the general education requirements with additional depth obtained in the curriculum of the major and through participation in extracurricular activities.

   Common Catalog Statement Regarding General Education

   Effective Fall Semester 2004, each institution in the State University and Community College System of Tennessee (The Tennessee Board of Regents System) will share a common lower-division general education core curriculum of forty-one (41) semester hours for baccalaureate degrees ~~and the~~

~~Associate of Arts and the Associate of Science degrees~~. Lower-division means freshman and sophomore courses. The courses comprising the general education curriculum are contained within the following subject categories:

Baccalaureate Degrees ~~and Associate of Arts and Associate of Science Degrees~~*	
Communication	9 hours**
Humanities and/or Fine Arts	9 hours
(At least one course must be in literature.)	
Social/Behavioral Sciences	6 hours
History	6 hours***
Natural Sciences	8 hours
Mathematics	3 hours
Total	41 hours

*Foreign language courses are an additional requirement for ~~the Associate of Arts (A.A.) and~~ Bachelor of Arts (B.A.) degree~~s~~. The B.A. degree requires proficiency in a foreign language equivalent to completion of two years of college-level work. ~~The A.A. degree requires proficiency in a foreign language equivalent to completion of one year of college-level work.~~

**Six hours of English Composition and three hours in English oral presentational communication are required.

***Students who plan to transfer to Tennessee Board of Regents (TBR) universities should take six hours of United States History (three hours of Tennessee History may substitute). Students who plan to transfer to University of Tennessee System universities or to out-of-state or private universities should check requirements and take the appropriate courses.

Although the courses designated by Tennessee Board of Regents (TBR) institutions to fulfill the requirements of the general education subject categories vary, transfer of the courses is assured through the following means:

- Upon completion of an A.A. or A.S. degree, the requirements of the lower-division general education core will be complete and accepted by a TBR university in the transfer process.
- If an A.A. or A.S. is not obtained, transfer of general education courses will be based upon fulfillment of complete subject categories. (Example: If all eight hours in the category of Natural Sciences are complete, then this "block" of the general education core is complete.) When a subject category is incomplete, course-by-course evaluation will be conducted. The provision of block fulfillment pertains also to students who transfer among TBR universities.
- Institutional/departmental requirements of the grade of "C" will be honored. Even if credit is granted for a course, any specific requirements for the grade of "C" by the receiving institution will be enforced. In certain majors, specific courses must be taken also in general education. It is important that students and advisors be aware of any major requirements that must be fulfilled under lower-division general education.

Courses designated to fulfill general education by Tennessee Tech University are published below. A complete listing of the courses fulfilling general education requirements for all system institutions is available on the TBR website (https://www.tbr.edu/academics/transfer-and-articulation) under Transfer and Articulation Information.

TTU Courses Recommended for the TBR General Education Core

Communication (9 hours)

English composition (6 hours)	
ENGL 1010 - Writing I	3
ENGL 1020 - Writing II	3
English oral presentational communication (3 hours)	
SPCH 2410 - Introduction to Speech Communication	3
PC 2500 - Communicating in the Professions	3
Mathematics (3 hours)	
MATH 1010 - Introduction to Contemporary Mathematical Ideas	3
MATH 1130 - College Algebra	3
MATH 1420 - Survey of Elementary Mathematics II	3
MATH 1530 - Elementary Probability and Statistics	3
MATH 1630 - Finite Mathematics	3
MATH 1710 - Pre-calculus I	3
MATH 1720 - Pre-calculus II	3
MATH 1730 - Pre-calculus Mathematics	5
MATH 1830 - Concepts of Calculus	3
MATH 1910 - Calculus I	4
History (6 hours)	
HIST 2010 - American History I	3
HIST 2020 - American History II	3
Humanities and/or Fine Arts (9 hours)	
At least one literature course, selected from those marked with an asterisk (*), must be included in the 9 hours.	
ART 1030 - Art Appreciation	3
*ENGL 2130 - American Literature	3
*ENGL 2230 - British Literature	3
*ENGL 2330 - World Literature	3
FREN 2510 - French Culture and Civilization	3
GERM 2520 - German Culture and Civilization	3
HIST 1010 - Survey of European Civilization I	3
HIST 1020 - Survey of European Civilization II	3
HIST 1110 - World Civilizations I	3
HIST 1120 - World Civilizations II	3
HIST 1310 - Science and World Cultures	3
MUS 1030 - Music Appreciation	3
PHIL 1030 - Introduction to Philosophy	3
SPAN 2510 - Spanish Culture and Civilization	3

SPAN 2550 - Latin American Culture and Civilization	3
THEA 1030 - Introduction to Theatre	3
Social/Behavioral Sciences (6 hours)	
AGBE 2010 - World Food and Society	3
ANTH 1100 - Introduction to Anthropology	3
ECON 2010 - Principles of Microeconomics	3
ECON 2020 - Principles of Macroeconomics	3
GEOG 1120 - Human Geography	3
GEOG 1130 - Geography of Natural Hazards	3
POLS 1000 - American Government	3
PSY 2010 - General Psychology	3
SOC 1010 - Introduction to Sociology	3
WGS 2010 - Introduction to Women and Gender Studies	3
Natural Sciences (8 hours)	
ASTR 1010 - Introduction to Modern Astronomy	4
ASTR 1020 - Introduction to Modern Astronomy	4
BIOL 1010 - Introduction to Biology I	4
BIOL 1020 - Introduction to Biology II	4
BIOL 1105 - Foundations of Biology	4
BIOL 1114 - General Zoology (formerly BIOL 1110 - General Zoology)	4
BIOL 2110 - General Botany (formerly BIOL BIOL 1120 - General Botany)	4
BIOL 1310 - Concepts of Biology and Environment	3
BIOL 2010 - Human Anatomy and Physiology I	4
BIOL 2020 - Human Anatomy and Physiology II	4
CHEM 1010 - Introduction to Chemistry I	4
CHEM 1020 - Introduction to Chemistry II	4
CHEM 1110 - General Chemistry I	4
CHEM 1120 - General Chemistry II	4
CHEM 1310 - Concepts of Chemistry	3
GEOG 2100 - Introduction to Meteorology	4
GEOL 1040 - The Dynamic Earth	4
GEOL 1045 - Earth Environment, Resources, and Society	4
GEOL 1310 - Concepts of Geology	3
PHYS 1310 - Concepts of Physics	3
PHYS 2010 - Algebra-based Physics I	4
PHYS 2020 - Algebra-based Physics II	4
PHYS 2110 - Calculus-based Physics I/~~PHYS 2111 (lab)~~	4 ~~(3+1)~~

PHYS 2120 - Calculus-based Physics II/~~PHYS 2121 (lab)~~	4 ~~(3+1)~~

2. **Special course requirements:**
    1. English must be taken each semester, except the summer, until this requirement is completed. ENGL 1010-ENGL 1020 may not be dropped. Correspondence credit in ENGL 1010-ENGL 1020 will not be accepted.
    2. The prerequisite for ENGL 1020 is a grade of C or better in ENGL 1010, and the prerequisite for a 2000-level English course is a grade of C or better in ENGL 1020. If a transfer student has completed two semesters of composition and has a grade of D in ENGL 1020, then the student must repeat ENGL 1020 before beginning the literature courses. ESL classes do not satisfy the ENGL 1010 and ENGL 1020 communication requirement of the general education core, nor do these courses count toward any degree requirements.
    3. Students must take a mathematics course no later than their second semester at TTU and take mathematics each semester thereafter until the mathematics general education core requirement is satisfied.
    4. All students must complete six hours of American History except those students who are majoring in Chemical, Civil, Computer, Electrical and Mechanical Engineering. If the student has not completed one unit of American History in high school, the student will be required to complete American History for the deficiency.
3. Completion of the curriculum for the major subject and degree chosen, as outlined under the department in which the major is offered. A major is outlined under the chosen curricula and must contain at least 6 hours of upper division in residence at Tennessee Technological University.
4. A minimum of 120 semester hours including 36 hours of 3000 and 4000 level upper-division credit approved courses are required for a baccalaureate degree except for Interdisciplinary majors who are required 45 hours. Not more than 33 semester hours may be earned by correspondence, workshop or extension, or by a combination of these and special examination. Not more than 12 semester hours in music ensembles, Physical Education 1010-1990, and Military Science activity courses may be counted toward graduation. (Not more than 12 semester hours of credit in activity courses may be counted toward the Bachelor's degree requirement.) A student transferring credit from a two-year institution must complete a minimum of 60 semester hours at a senior institution.
5. All courses required for the major must be passed with at least a "D" on the final attempt if the student does not withdraw from the course.
6. A general quality point average of 2.0 (C) and a general average of 2.0 in the courses offered in the major subject. Transfer students also must attain at Tennessee Technological University a general average of 2.0 and an average of 2.0 in the courses taken in the major subject.
7. **Residence:** To meet the residence requirements, a student must complete at least 25 percent of the credit for the degree requirements including a minimum of 24 of the last 30 semester hours of 3000 and 4000 level requirements at Tennessee Technological University.

8. ~~Each academic department is to ensure that its candidates for graduation have satisfactorily corrected deficiencies in communication skills so that they will be able to read, write, speak, and comprehend on a level that will permit them to function successfully in their chosen fields as college graduates.~~
9. ~~All faculty members are encouraged to report students judged deficient in communication skills to the student's major department for referral to the Writing Center.~~
8. Students who are majoring in another field but are taking course work in the College of Business must limit credit for the degree in business courses to ~~25 percent of the degree or 24~~ 30 hours for the 120 hour degree as limited by AACSB.
9. **Definition of Minors:** A minor is 15 hours. A student may elect to complete more than one minor.
    1. A minor in any specific discipline in the College of Arts and Sciences must include 6 Upper Division hours. A minor in English may not include ENGL 1010 or ENGL 1020. A minor in Mathematics must include MATH 1910 and MATH 1920 and it may not include a course numbered below MATH 1910.
       A minor for Arts and Sciences students requires the completion of 15 semester hours, including 6 upper-division hours, in a coherent program of study. The criterion of coherence may be met in either of two ways: (1) by following the minor curriculum prescribed by any department or college at TTU, so long as it includes at least 6 upper-division hours; (2) if such a minor curriculum is not available in the chosen department or college, by taking the 15 semester hours, including 6 at the upper division, in a single discipline—i.e., normally, courses with the same course prefix, but students should check with the department offering the minor before assuming this. Exception: A minor in physics will consist of at least 15 hours of coursework including PHYS 2110, PHYS 2120, PHYS 2420, PHYS 2920 and one upper division physics course.
    2. A minor in Art, Music or Physical Education may contain no more than 4 hours of individual instruction, ensemble, or activity courses. Other minors are defined as follows:

Agriculture: 15 hours (including 6 upper division hours) approved by the student's academic advisor.
Art: A minor in art is ART 1010 - Two-Dimensional Design or ART 2010 - Three-Dimensional Design, ART 1030 - Art Appreciation, ART 2310 - Drawing I, Introduction, and Studio Electives—6 credit hours.
Business: A minor in Business shall consist of ACCT 3720, BMGT 3510, MKT 3400, FIN 3210, and LAW 3810. Students must also complete ECON 2010-ECON 2020 for the Social Science component of their General Education requirements or as General Electives.
Computer Science: Students must complete fifteen (15) semester hours of CSC courses including CSC 2110, CSC 2111 and at least six (6) upper division CSC hours.
Education: Any combination of 15 semester hours chosen from Art Education (ARED), Early Childhood Education (ECED), Educational Psychology (EDPY), Elementary Education (ELED), Foundations of Education (FOED), Music Education (MUED), Reading (READ), Secondary Education (SEED), and Special Education (SPED).
Environmental Sciences: A minor will consist of at 15 hours of coursework, with a minimum of 6 upper-division hours, including the following: (a) HIST 2900; (b) One of the following: SOC

3600 or AGBE 4120; (c) 9 additional semester hours chosen from: AGET 3110, AGRN 1100, AGRN 1110, AGRN 3230, AGRN 4220, AGRN 4230; BIOL 3120 or 3130 or WFS 3130; BIOL 4130, BIOL 4610, BIOL 4840, ESS 3710, CHEM 4710; ENGL 4930 or ENGL 4931; GEOG 1010, GEOG 3330, GEOL 4100, GEOL 4150, GEOL 4410, GEOL 4650, GEOL 4711, SOC 3600, WFS 4500, including at least one course at the 3000-4000 level and two of the following areas of study: Agriculture, Biology, Chemistry, Geography, Geology, and Sociology (note: WFS is considered to be Biology).

Human Ecology: A minor must include HEC 1000, HEC 1010, HEC 3011 and eight credit hours of HEC electives.

Humanities: Any combination of 15 semester hours chosen from Art (ART), English (ENGL), Foreign Languages (FREN, JAPN, SPAN, or RUSS), Music (MUS), Philosophy (PHIL), and Theatre (THEA). Note: ENGL 1010 -ENGL 1020 may not be included in the minor.

Manufacturing and Engineering Technology: Students must complete fifteen (15) semester hours to include nine (9) lower division MET hours and six (6) upper division MET hours.[2]

Music: A minor in music is MUS 1030 - Music Appreciation, MUS 1120 - Harmony I, MUS 3010 - Music History and Literature I [1], MUS 3020 - Music History and Literature II [1], MUS Applied Study[2], and MUS Ensemble.

[1] Prerequisite: MUS 1030.

[2] Two semesters required.

Professional Communication: A minor in Professional Communication will consist of: PC 2500 or SPCH 2410; and at least 12 additional hours of coursework from the following: PC 3250, PC 3700, PC 3750, PC 4850, PC 4940, PC 4970, PC 4990.

Science: Any combination of 15 semester hours chosen from Biology (BIOL), Chemistry (CHEM), Geology (GEOL), and Physics (PHYS).

Social Science: Any combination of 15 semester hours chosen from Criminal Justice (CJ), Economics (ECON), Geography (GEOG), History (HIST), Psychology (PSY), Political Science (POLS), and Sociology(SOC).

Speech Communication: A minor in speech communication will consist of SPCH 2410 or PC 2500 and at least 4 courses from the following: SPCH 3620, SPCH 3630, SPCH 3120, SPCH 3130, SPCH 3610, SPCH 4410, SPCH 4630 (5630), SPCH 4430 (5430), and LING 4440.

Web Design: A minor in Web Design will consist of the following courses: CSC 1070 or an approved programming course, WEBD 1500, WEBD 2300, WEBD 4950, WEBD 4975.

Women and Gender Studies: A minor in Women and Gender Studies requires completion of WGS 2010 and a minimum of 12 additional hours of course work (including 6 upper division hours) in approved courses. A minimum of 6 credit hours must be chosen from the following core courses: ENGL 4731, HIST 4350-4359, HIST 4370, POLS 3400, SOC 2200. The remaining 6 credit hours may include additional core courses listed above or approved courses that contain a significant focus on women and/or gender, or in which a student may individually contract with course instructor to focus on women and/or gender issues. These courses include but are not limited to the following: ENGL 4920, HIST 4360-4369, HIST 4440-4449, POLS 3200, POLS 3800, POLS 4610, SOC 2630, SOC 4210, SOC 4610, HON 4010 and 4900 in various disciplines.

[1]Exception: Except for Biology majors, students who did not take BIOL 1010-BIOL 1020 must take BIOL 3120 or BIOL 3130/WFS 3130 as part of the 9 additional hours.

[2]Exception: A minor in Business for Manufacturing and Engineering Technology consists of ECON 2010, ECON 3610; BMGT 3510, DS 3520, ACCT 3720 and BMGT 3630 or BMGT 4520 (5520) or DS 3620 or DS 3540.

10. **Exams for teaching licensure:** All students, irrespective of the College or School in which enrolled who will have completed licensure requirements for teacher education as a part of the total hours required for graduation are required to take the Praxis II (NTE) Examinations: the Core Battery and the appropriate specialty examination(s).
11. **Catalog to follow:** To graduate, a student meets the requirements of the catalog effective at the time he or she entered the curriculum, provided graduation is within seven years from that entrance date, or the catalog in effect at the time of graduation. If a student is out of the university at least one full year, the student must meet with the department chairperson upon re-entering into the program to determine which catalog to follow. "Catalog" refers specifically to degree requirements in this section. Degree requirements for all students, regardless of date of enrollment in their curricula, may be subject to change prior to the publication of a new catalog when the implementation of curricular changes is necessary to maintain quality programs. The designated catalog for graduation must be approved by the departmental chairperson if different from the one in effect when a student entered the curriculum or the catalog in effect at the time of graduation. Students entering a curriculum in the summer are expected to follow the catalog for the next academic year. A Tennessee public community college student may select the Tennessee Tech Catalog effective at the time he or she enters the community college if that student enrolls at Tennessee Tech within six years and continues in the major chosen while in community college.
12. Credit which was earned earlier than ten years prior to the proposed date of graduation will be subject to review and approval by the academic department of the student's major.
13. **Filing of application for Graduation:** All candidates for an undergraduate degree ~~should~~ must submit an online application for graduation ~~file a written application for graduation in the Graduation Office (Derryberry Hall Room 122) prior to two semesters of their anticipated graduation.~~by the published deadline in the University calendar.
14. **Completion of requirements policy:** All requirements for graduation must be filed in the ~~Graduation Office~~ Academic Services Office (Derryberry Room 122) no later than 2 days prior to commencement with the exception of transfer work in progress. All transcripts must be received no later than 2 weeks after the commencement date otherwise the student graduates the following semester.
15. The University will modify degree requirements when possible for students whose disabling conditions prevent completion. Students whose disability might prevent completion of a program should consult with the Office of Admissions when applying for admission or with his or her academic advisor during the first semester of enrollment.

Students may be required to take one or more tests designed to measure general education achievement and achievement in major areas as a prerequisite to graduation, for the purpose of evaluation of academic programs. Students should sign up as indicated. Unless otherwise provided for any individual program no minimum score or level of achievement is required for graduation. Participation in testing may be required of all students in selected programs, and of students selected on a sample basis.

Note: A suggestion was made under item #4 to capitalize Interdisciplinary to make it more specific.