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## Agenda for the February 13, 2014 CAA Meeting

**Items Approved:** 14-14, Applied Engineering & Technology Major (Revised Major and Removal of Concentrations)  
14-15, Applied Engineering & Technology Minor (Revised Minor)  
14-16, ELE/MLE 4855, Exploring ESL Students through Clinical Experiences (New Course)  
14-17, HST 4830, Perspectives on Health and Humor (New Course)  
14-19, KSS 1500, Kinesiology & Sports Studies as a Profession (Revised Course)  
14-20, KSS 2000, Technique and Practice of Teaching Physical Education (Revised Course)  
14-21, KSS 2101, Technique and Theory of Badminton, Tennis and Pickleball (Revised Course)  
14-22, KSS 2102, Technique and Theory of Golf, Bowling and Disc Golf (Revised Course)  
14-23, KSS 2220, Technique and Theory of Dance (Revised Course)  
14-24, KSS 2360, Technique and Theory of Volleyball, Ultimate Frisbee and Lacrosse (Revised Course)  
14-25, KSS 2400, Introduction to Elementary School Physical Education (Revised Course)  
14-26, KSS 2450, Adapted Physical Education (Revised Course)  
14-27, KSS 2860, Teaching Health-Related Fitness (New Course)

**Items Pending:** 11-132R, Course Proposal Format Form (Revised Form)  
14-13, Proposed Credit Hour Policy  
14-18, Adult Education Minor (Revised Minor)  
14-28, KSS 3400, Secondary Physical Education Methods (Revised Course)  
14-29, KSS 3401, Elementary Physical Education Methods (Revised Course)  
14-30, KSS 3460, Soccer Coaching (Revised Course)  
14-31, KSS 3470, Basketball Coaching (Revised Course)  
14-32, KSS 3480, Football Coaching (Revised Course)  
14-33, KSS 3490, Track and Field Coaching (Revised Course)  
14-34, KSS 3500, Baseball Coaching (Revised Course)  
14-35, KSS 3550, Wrestling Coaching (Revised Course)  
14-36, KSS 3750, Softball Coaching (Revised Course)  
14-37, KSS 3770, Volleyball Coaching (Revised Course)  
14-38, KSS 4320, Organization, Administration, & Curriculum in Physical Education (Revised Course)  
14-39, KSS 4470, Assessment in K-12 Physical Education (Revised Course)  
14-40, Kinesiology & Sports Studies Minor (Revised Minor)  
14-41, Physics: Engineering Physics Option (Revised Option)

**Ongoing:** Five-year plan regarding the University Learning Goals (For details concerning the plan, see agenda Item 13-83, CAA Learning Goals Committee's Recommendations & Resolution, which was approved by CAA at its 4/25/13 meeting)

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### Council on Academic Affairs Minutes February 13, 2014

The February 13, 2014 meeting of the Council on Academic Affairs was held at 3:00 p.m. in the Arcola/Tuscola Room at the University Union.

**Members Present:** Ms. Ahmad, Dr. Anthony, Ms. Duffin, Ms. English, Ms. Green, Dr. Lucas, Dr. Reid, Dr. Rhoads, Ms. Sage, Dr. Throneburg, and Dr. White.

**Members Absent:** Dr. Gronnvoll and Dr. Ruholl.

**Staff Present:** Provost Lord and Ms. Fopay.

**Guests Present:** Dr. Bates, Health Studies; Dr. Cavanaugh, Health Studies; Mr. Cruikshank, *Daily Eastern News*; Dean Jackman, College of Education & Professional Studies; Dr. Melton, School of Technology; Dr. Jill Owen, Kinesiology & Sports Studies; Dr. Padmaraju, Early Childhood, Elementary & Middle Level Education; Dr. Reven, Early Childhood, Elementary & Middle Level Education; Dr. Ronspies, Kinesiology & Sports Studies; and Dr. Russell, Early Childhood, Elementary & Middle Level Education.

#### I. Approval of the February 6, 2014 CAA Meeting Minutes.

Ms. English moved and Ms. Green seconded the motion to approve the minutes. The minutes of February 6, 2014 were approved with the following revision: *The title for HST 4830 listed on the CAA minutes and agenda should be "Perspectives on Health and Humor" rather than "Perspectives on Health and Human".*

Also, it was taken under advisement that the phrase "D or better in" shouldn't be included in the course prerequisites shown in catalog course descriptions. This was brought to the council's attention because the phrase had been included in the course prerequisites for PSY 3680, BIO 2210, and BIO 2200 shown in the February 6 minutes.

**II. Communications:****a. College Curriculum Committee Minutes:**

1. Minutes of the February 7, 2014 College of Sciences Curriculum Committee meeting.

**III. Committee Reports:**

1. Dr. Lucas reported that there will be a University Learning Goals Workshop on Thursday, February 20, 2014. The workshop will be held from 10:00 a.m. to noon in the Arcola/Tuscola Room.

Individuals may register for the workshop at the following website:

<http://cats.eiu.edu/FacultyDevelopmentRegistration/workshops.asp>

Also, a list of all Spring 2014 workshops is located at the following website:

<http://www.eiu.edu/learninggoals/Spring%202014%20Workshops.php>

<http://www.eiu.edu/learninggoals/Spring%202014%20Workshops.php>

2. Dr. Reid reported the Integrative Learning Awards Subcommittee made recommendations to Provost Lord regarding the awards.

**IV. Item to be Added to the Agenda:**

1. 14-41, Physics: Engineering Physics Option (Revised Option)

Ms. Green moved and Dr. Anthony seconded the motion to add these items to the agenda.

**V. Items Acted Upon:**

1. **14-14, Applied Engineering & Technology Major (Revised Major and Removal of Concentrations).**

Dr. Melton presented the proposal and answered questions of the council.

Ms. English moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal (**See Attachment A**) was approved, effective Fall 2014.

2. **14-15, Applied Engineering & Technology Minor (Revised Minor).**

Dr. Melton presented the proposal. There were no questions.

Dr. Lucas moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal (**See Attachment B**) was approved, effective Fall 2014.

3. **14-16. ELE/MLE 4855, Exploring ESL Students through Clinical Experiences (New Course).**

Dr. Russell and Dr. Padmaraju presented the proposal and answered questions of the council. The council requested a revision to the proposal.

Ms. Green moved and Dr. Anthony seconded the motion to approve the proposal. The motion passed unanimously.

The proposal, with revision, was approved, effective Summer 2015, *pending CGS approval*.

**ELE/MLE 4855. Exploring ESL Students through Clinical Experiences. (Arr.-Arr.-1-3) Su. On Demand. ESL Clinical Experiences.** This course is part of a clinical experiences requirement for students who are either seeking a Graduate Certificate in English as a Second Language (ESL) Instruction or MEd in Elementary Education with an emphasis in ESL Instruction. These clinical experiences will be in settings with linguistic diversity and will provide experiences with regard to programs designed to meet the needs of the growing population of English Language Learners (ELLs). Note: A minimum of 40 hours of clinical experiences required per credit hour. Course may be repeated once with credit up to 6 credit hours.

**4. 14-17, HST 4830, Perspectives on Health and Humor (New Course).**

Dr. Bates and Dr. Cavanaugh presented the proposal and answered questions of the council. The council requested a revision to the proposal.

Ms. Green moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal, with revision, was approved, effective Summer 2014, *pending CGS approval*.

**HST 4830. Perspectives on Health and Humor. (3-0-3) Health and Humor.** This course will focus on theoretical and empirical approaches to understanding humor from a holistic health perspective. Discussion of current research findings will be used to illustrate the vital connection between humor and individual well-being. This class will build and expand upon the basic health concept of the holistic health model through the application of strategies designed to integrate humor into the individual's life. WA

**5. 14-18, Adult Education Minor (Revised Minor).**

Dr. Lucas presented the proposal and answered questions of the council.

Ms. Green moved and Ms. English seconded the motion to approve the proposal. However, no voting took place. Instead the council discussed the item and then tabled it. The item will be revisited after the departments, who currently offer courses in the minor, have been notified about the proposed revisions to the minor and that their courses will no longer be included in the minor if the proposal is approved.

**6. 14-19, KSS 1500, Kinesiology & Sports Studies as a Profession (Revised Course).**

Dr. Owen and Dr. Ronspies presented the proposal and answered questions of the council.

Ms. Green moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal was approved, effective Fall 2014.

**KSS 1500. Kinesiology and Sports Studies as a Profession. (2-0-2) F, S. KSS as a Profession.** An introductory professional course which includes the general scope, purpose, history, growth and development, and career assessment of kinesiology and sports studies.

**7. 14-20, KSS 2000, Technique and Practice of Teaching Physical Education (Revised Course).**

Dr. Owen and Dr. Ronspies presented the proposal and answered questions of the council.

Ms. Green moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal was approved, effective Fall 2014.

**KSS 2000. Technique and Practice of Teaching Physical Education. (1-1-1) F, S. Teaching Physical Education.** An introduction to the techniques of teaching physical education through lecture, observation and participation. Sixteen clock hours of field-based participation/observation are required. Course restricted to Kinesiology & Sports Studies: Physical Education Teacher Certification Option K-12 Special Certificate majors. WA

8. **14-21, KSS 2101, Technique and Theory of Badminton, Tennis and Pickleball (Revised Course).**  
Dr. Owen and Dr. Ronspies presented the proposal and answered questions of the council.

Dr. Reid moved and Dr. Anthony seconded the motion to approve the proposal. The motion passed unanimously.

The proposal was approved, effective Fall 2014.

**KSS 2101. Technique and Theory of Badminton, Tennis and Pickleball. (0-4-2) F, S. Badminton, Tennis, Pickleball.** The development of basic skills and techniques of badminton, tennis, and pickleball. In addition, students will be introduced to the fundamentals of badminton, tennis and pickleball through instruction, practice, and application experiences. Students will also be introduced to various methods of teaching that apply to racket sports in K-12 physical education and activity settings. Course restricted to Kinesiology & Sports Studies majors and minors.

9. **14-22, KSS 2102, Technique and Theory of Golf, Bowling and Disc Golf (Revised Course).**  
**14-23, KSS 2220, Technique and Theory of Dance (Revised Course).**  
**14-24, KSS 2360, Technique and Theory of Volleyball, Ultimate Frisbee and Lacrosse (Revised Course).**

First, Ms. Green moved and Dr. Reid seconded the motion to approve agenda item 14-22. However, no voting took place. Instead another motion was made (See below.)

Dr. Throneburg moved and Dr. Anthony seconded the motion to approve agenda items 14-22, 14-23, and 14-24 altogether as a group.

The items were voted upon after Dr. Owen and Dr. Ronspies presented the proposals and answered questions of the council.

The motion passed unanimously.

Agenda items 14-22, 14-23, and 14-24 were approved, effective Fall 2014.

**Course description for agenda item 14-22:**

**KSS 2102. Technique and Theory of Golf, Bowling, and Disc Golf. (0-4-2) F, S. Golf, Bowling, Disc Golf.** The development of basic skills and techniques of golf, bowling, and disc golf. In addition, students will be introduced to the fundamentals of golf, bowling, and disc golf through instruction, practice, and application experiences. Students will also be introduced to various methods of teaching that apply to golf, bowling and disc golf in K-12 physical education and activity settings. Course restricted to Kinesiology & Sports Studies majors and minors.

**Course description for agenda item 14-23:**

**KSS 2220. Technique and Theory of Dance. F, S. (0-4-2) Technique and Theory of Dance.** The development of basic skills and techniques of dance. In addition, students will be introduced to the fundamentals of various dances through instruction, practice, and application experiences. Furthermore, students will be introduced to various methods of teaching dances that apply to teaching in K-12 physical education and activity settings. Course restricted to Kinesiology & Sports Studies majors and minors.

**Course description for agenda item 14-24:**

**KSS 2360. Technique and Theory of Volleyball, Ultimate Frisbee and Lacrosse. (0-4-2) F, S. Volleyball, Frisbee, Lacrosse.** Students will be introduced to the fundamentals of volleyball, ultimate frisbee and lacrosse through instruction, practice, and application experiences. Students will also be introduced to various methods of teaching that apply to teaching volleyball, ultimate frisbee and lacrosse in K-12 physical education and activity settings. Course restricted to Kinesiology & Sports Studies majors and minors.

**10. 14-25, KSS 2400, Introduction to Elementary School Physical Education (Revised Course).**

Dr. Owen and Dr. Ronspies presented the proposal and answered questions of the council.

Dr. Anthony moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal was approved, effective Fall 2014.

**KSS 2400. Introduction to Elementary School Physical Education. (0-4-2) F, S. Elementary P.E.** An examination of physical education as it relates to the total education of the elementary school child with emphasis on the developmental approach. Course restricted to Kinesiology & Sports Studies: Physical Education Teacher Certification Option K-12 Special Certificate majors; Early Childhood Education majors; Elementary: General Option majors; and Special Education majors.

**11. 14-26, KSS 2450, Adapted Physical Education (Revised Course).**

Dr. Owen and Dr. Ronspies presented the proposal and answered questions of the council.

Ms. Duffin moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal was approved, effective Fall 2014.

**KSS 2450. Adapted Physical Education. (3-0-3) F, S.** This course is designed to prepare physical education teachers to provide safe, appropriate, and individualized accommodations for children with disabilities who are included in general physical education programs. Course restricted to Kinesiology & Sports Studies: Physical Education Teacher Certification Option K-12 Special Certificate majors and the Kinesiology & Sports Studies Minor for Teacher Certification students.

**12. 14-27, KSS 2860, Teaching Health-Related Fitness (New Course).**

Dr. Owen and Dr. Ronspies presented the proposal and answered questions of the council.

Ms. English moved and Ms. Green seconded the motion to approve the proposal. The motion passed unanimously.

The proposal was approved, effective Fall 2014.

**KSS 2860. Teaching Health-Related Fitness. (2-0-2) F, S. Health-Related Fitness.** Facilitate pre-service teacher's knowledge, skills, appreciation, and confidence needed to lead school aged children in the development of active healthy lives. Course restricted to Kinesiology & Sports Studies: Physical Education Teacher Certification Option K-12 Special Certificate majors. Prerequisite: A grade of "C" or better in KSS 2850. WA

**VII. Pending:**

1. 11-132R, Course Proposal Format Form (Revised Form)
2. 14-13, Proposed Credit Hour Policy
3. 14-28, KSS 3400, Secondary Physical Education Methods (Revised Course)
4. 14-29, KSS 3401, Elementary Physical Education Methods (Revised Course)
5. 14-30, KSS 3460, Soccer Coaching (Revised Course)
6. 14-31, KSS 3470, Basketball Coaching (Revised Course)
7. 14-32, KSS 3480, Football Coaching (Revised Course)
8. 14-33, KSS 3490, Track and Field Coaching (Revised Course)
9. 14-34, KSS 3500, Baseball Coaching (Revised Course)
10. 14-35, KSS 3550, Wrestling Coaching (Revised Course)
11. 14-36, KSS 3750, Softball Coaching (Revised Course)
12. 14-37, KSS 3770, Volleyball Coaching (Revised Course)
13. 14-38, KSS 4320, Organization, Administration, & Curriculum in Physical Education (Revised Course)

14. 14-39, KSS 4470, Assessment in K-12 Physical Education (Revised Course)
15. 14-40, Kinesiology & Sports Studies Minor (Revised Minor)

#### VIII. Ongoing:

1. Five-year plan regarding the University Learning Goals (For details concerning the plan, see agenda Item 13-83, CAA Learning Goals Committee's Recommendations & Resolution, which was approved by CAA at its 4/25/13 meeting.)

#### IX. Meeting Adjournment:

1. Ms. Green moved and Dr. Reid seconded the motion to adjourn the meeting. The motion was approved by acclamation.

The meeting adjourned at 3:55 p.m.

The next meeting will be held at 3:00 p.m. on Thursday, February 20, 2014.

–Minutes prepared by Ms. Janet Fopay, Recording Secretary

The current agenda and all CAA council minutes are available on the Web at <http://www.eiu.edu/~eiucaa/>. In addition, an electronic course library is available at <http://www.eiu.edu/~eiucaa/elibrary/>.

\*\*\*\*\* ANNOUNCEMENT OF NEXT MEETING \*\*\*\*\*  
**February 20, 2014**  
**Arcola/Tuscola Room – University Union @ 3:00 p.m.**

#### Agenda:

1. 14-13, Proposed Credit Hour Policy
2. 14-28, KSS 3400, Secondary Physical Education Methods (Revised Course)
3. 14-29, KSS 3401, Elementary Physical Education Methods (Revised Course)
4. 14-30, KSS 3460, Soccer Coaching (Revised Course)
5. 14-31, KSS 3470, Basketball Coaching (Revised Course)
6. 14-32, KSS 3480, Football Coaching (Revised Course)
7. 14-33, KSS 3490, Track and Field Coaching (Revised Course)
8. 14-34, KSS 3500, Baseball Coaching (Revised Course)
9. 14-35, KSS 3550, Wrestling Coaching (Revised Course)
10. 14-36, KSS 3750, Softball Coaching (Revised Course)
11. 14-37, KSS 3770, Volleyball Coaching (Revised Course)
12. 14-38, KSS 4320, Organization, Administration, & Curriculum in Physical Education (Revised Course)
13. 14-39, KSS 4470, Assessment in K-12 Physical Education (Revised Course)
14. 14-40, Kinesiology & Sports Studies Minor (Revised Minor)

#### Pending:

1. 11-132R, Course Proposal Format Form (Revised Form)
2. 14-41, Physics: Engineering Physics Option (Revised Option)
3. 14-18, Adult Education Minor (Revised Minor)

#### Approved Executive Actions:

##### BAS

##### Effective Fall 2014

1. Change the course description for BUS 3470.

**BUS 3470 - Principles of Marketing. (3-0-3) F, S.** Marketing concepts including the analysis of the marketing environment and the strategic variables of product, price, distribution, and promotion. **This course prepares students to make operational decisions within the product, place, promotion, and price areas. This course develops the student's ability to find and organize information used for decision-making and introduces a comprehensive marketing strategy approach where core business functions integrate with marketing activities.** Prerequisites and Notes: Junior standing. Credits: 3

2. Update the prerequisites for BUS 4000.

**BUS 4000 - Business Ethics. (3-0-3) On Demand.** This course explores the complex relationships among business organizations, their stakeholders, and society by examining contemporary issues in business ethics and their impact on individuals, businesses, and the national and international economies. The course also addresses the effects and potential outcomes of individual ethical conduct in the business organization. Following an introduction to the philosophical foundations of business ethics, students will focus on the organizational decision process to identify, analyze, and resolve simple and complex ethical dilemmas in business. Prerequisites and Notes: BUS 2750, BUS 3010, BUS 3200 (or BUS 3970), and admission to the School of Business. [Prerequisites may not be taken concurrently with the course.] Credits: 3

3. Revise the course title for FCS 3300.

**FCS 3300 - ~~Consumer Education~~. Personal and Family Finance. (3-0-3) F, S.** A study of factors affecting the buymanship of food, clothing, housing, transportation, credit, and insurance. Credit not granted for both FCS 3300 and CTE 3000. Credits: 3

## CEPS

### Effective Summer 2014

1. Cross list ELE 4850 with MLE.

**ELE 4850 - Exploring English Language Learners through Study Abroad/Study Away Experiences. (1-0-1) Su.** This course is for students registered for the study abroad or study away programs coordinated by the Early Childhood, Elementary and Middle Level education department. These study abroad/study away programs are in settings with high levels of language diversity and will provide a background regarding the programs designed to meet the needs of the growing population of English Language Learners. Co-requisites: Must be registered to participate in Study Abroad/Study Away programs with field experiences in school settings with high levels of language diversity. Course may be repeated once with credit. **Cross-listed with MLE 4850.** Credits: 1

**MLE 4850 - Exploring English Language Learners through Study Abroad/Study Away Experiences. (1-0-1) Su.** This course is for students registered for the study abroad or study away programs coordinated by the Early Childhood, Elementary and Middle Level education department. These study abroad/study away programs are in settings with high levels of language diversity and will provide a background regarding the programs designed to meet the needs of the growing population of English Language Learners. Co-requisites: Must be registered to participate in Study Abroad/Study Away programs with field experiences in school settings with high levels of language diversity. Course may be repeated once with credit. **Cross-listed with ELE 4850.** Credits: 1

2. Cross list ELE 4890 with MLE.

**ELE 4890 - Culturally and Linguistically Diverse Students/English Language Learners: Instructional Methods. (3-0-3)** This course is designed to provide teacher candidates with the knowledge, skills and dispositions to effectively organize and implement instructional methods for students that are culturally and linguistically diverse (CLD) and/or English Language Learners (ELL). Teacher candidates will research and reflect on various methods and strategies to design instruction to meet the needs of students who are considered CLD/ELL and who may have varying levels of language proficiency. This course is restricted to teacher Education candidates who have successfully met the University Teacher Education requirements and department requirements and have met all the prerequisites. Prerequisites & Notes: Early Childhood: ELE 3281 and ELE 4775; or Elementary Education: ELE 3280 and ELE 3350 or permission of the Department Chair. These prerequisite courses may be taken concurrently with the course. University Teacher Education requirements apply and department requirements for enrollment must be met. **Cross-listed with MLE 4890.** Credits: 3

**MLE 4890 - Culturally and Linguistically Diverse Students/English Language Learners: Instructional Methods. (3-0-3)** This course is designed to provide teacher candidates with the knowledge, skills and dispositions to effectively organize and implement instructional methods for students that are culturally and linguistically diverse (CLD) and/or English Language Learners (ELL). Teacher candidates will research and reflect on various methods and strategies to design instruction to meet the needs of students who are considered CLD/ELL and who may have varying levels of language proficiency. This course is restricted to teacher Education candidates who have successfully met the University Teacher Education requirements and department requirements and have met all the prerequisites. Prerequisites & Notes: Early Childhood: ELE 3281 and ELE 4775; or Elementary Education: ELE 3280 and ELE 3350 or permission of the Department Chair. These prerequisite courses may be taken concurrently with the course. University Teacher Education requirements apply and department requirements for enrollment must be met. **Cross-listed with ELE 4890.** Credits: 3

**Pending Executive Actions:**

None.



### **Attachment A**

## **Applied Engineering and Technology (B.S.)**

Total Semester Hours Required for Degree: 120 semester hours

The Applied Engineering and Technology program provides a broad education that emphasizes the study of materials, processes, and management. The program is designed to prepare technical or technical management-oriented professionals for employment in business, industry, and government. Individuals interested in working with people, materials, and processes will find Applied Engineering Technology provides an excellent foundation for a challenging career. \*\*

**Additionally, the Applied Engineering and Technology program offers the opportunity to select a Focus Area of Study, comprised of technical courses within that chosen area.**

### **Summary of Applied Engineering & Technology Program Requirements**

5 courses in Introduction to Technological Studies	15 hrs
<b>4 courses in Introduction to Technological Studies</b>	<b>12 hrs</b>
3 courses in Technical Development	9 hrs
<b>9 courses in the Focus Area of Study</b>	<b>27 hrs</b>
5 courses in Professional Development	16 hrs
1 course in Economics	3 hrs
2 courses in Mathematics/Statistics	6 - 9 hrs
3 - 4 courses in Physical Sciences	8 hrs
<b>Total Core Hours</b>	<b>57 - 60 hrs</b>
<b>15 Concentration Hours</b>	<b>15 hrs</b>
<b>Total Major Hours</b>	<b>72 - 75 hrs</b>

### **Major**

Semester Hours Required for the AET Major: 72-75 semester hours

Applied Engineering and Technology comprises the following courses, as well as 15 hours of course work from one of the concentrations.

### **Introduction to Technological Studies (15 12 hrs)**

- AET 1263 - Materials Technology. Credits: 3
- AET 1323 - Computers for Applied Engineering and Technology. Credits: 3
- AET 1413 - Technological Systems. Credits: 3
- ~~AET 2324 - Electronic Control Systems. Credits: 3~~
- ~~AET 3703 - Machine Design. Credits: 3~~
- **AET 1363 – Graphic Communication Technologies. Credits: 3**
- OR
- **AET 2043 – Computer-Aided Engineering Drawing. Credits: 3**

### **Technical Development**

Students must select 9 hours from AET courses other than the required AET Core, AET Senior Seminars, or AET General Education courses. Courses from outside the major or transfer courses that support technical management may be considered as AET electives upon departmental approval, to meet the 9 hours. Courses will not double count for concentration and to meet the AET Technical Development requirement.

### **Focus Area of Study (27 hrs)**

**Students must select 27 hours from AET course work in accordance with the individual's field of interest. Students can select courses from a single established Focus Area, like Computers and Telecommunications, Construction, Design and Production, Digital Media, or Sustainable Energy, or design a specialized Focus Area to meet their individual career objectives. In addition, general education and/or courses used to fulfill technological studies and professional development requirements cannot be used to fulfill this requirement. Courses from outside the major or transfer courses that support technical management may be considered upon departmental approval, to meet the 27 hours required.**

**Professional Development (16 hrs)**

- AET 3414 - Selection and Management of Applied Engineering Projects. Credits: 4
- ~~AET 4823 - Facility Security. Credits: 3~~
- **AET 4773 – Safety for Engineering and Technology Professionals. Credits: 3**
- AET 4843 - Statistical Quality Assurance. Credits: 3
- AET 4943 - Manufacturing Management. Credits: 3
- OPD 4835 - Supervision in Organizations. Credits: 3
- OR
- BUS 3010 - Management and Organizational Behavior. Credits: 3

**One of the following:**

- ECN 2800G - Economics of Social Issues. Credits: 3
- ECN 2801G - Principles of Macroeconomics. Credits: 3

**Mathematics:**

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- OR
- MAT 2120G - Finite Mathematics. Credits: 3

**AND**

- BUS 2810 - Business Statistics I. Credits: 3
- OR
- MAT 2250G - Elementary Statistics. Credits: 4

**Physical Sciences – Students need eight hours from the courses listed below:**

- CHM 1040G - The World of Chemistry. Credits: 4
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- PHY 1052G - Adventures in Physics. Credits: 3
- PHY 1053G - Adventures in Physics Laboratory. Credits: 1
- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I. Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II. Laboratory. Credits: 1
- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

**And 15 hours of course work from one of the concentrations listed below:****Alternative Energy and Sustainability Concentration**

A minimum of 15 hours of course work which includes AET 3253 and 3453 and three courses selected from the following list: AET 3833, 4275, 4453, and 4873. These may include study in the areas of the basics of energy sources and technology, the specifics of alternative and renewable energy and their uses, the sustainability of energy sources both traditional, alternative and renewable, and examining the trends both present and future as to energy sources, energy usage, and energy futures. Internship in an energy organization as well as a course in issues of green and sustainable construction are available.

**Required Courses:**

- ~~AET 3253 - Energy Technology. Credits: 3~~
- ~~AET 3453 - Alternative and Renewable Energy Systems. Credits: 3~~

**Three courses selected from the following:**

- ~~AET 3833 - Sustainable Buildings. Credits: 3~~
- ~~AET 4275 - Industrial Internship. Credits: 1 to 10~~
- ~~AET 4453 - Sustainability Topics in Energy. Credits: 3~~
- ~~AET 4873 - Current Trends in Energy Technology. Credits: 3~~

**Construction Technical Concentration**

A minimum of 15 semester hours of course work may include study in the areas of architectural drafting and blueprint reading, surveying, cost estimating, construction practices, construction materials, construction specifications, and business law. Construction Technical Concentration students must take AET 2253 – Construction Equipment and Materials (3 credits) plus 12 hours from the following courses:

- AET 3213 – Surveying and Site Planning. Credits: 3
- AET 3223 – Architectural Drafting and Blueprint Reading. Credits: 3
- AET 3603 – Mechanical Systems in Residential and Commercial Buildings. Credits: 3
- AET 4223 – Construction Cost Estimating. Credits: 3
- AET 4243 – Construction Project Management. Credits: 3
- BUS 2750 – Legal and Social Environment of Business. Credits: 3

**Digital Media Technologies Technical Concentration**

A minimum of 15 semester hours of course work may include study in the areas of digital printing, imaging, and web technology. This concentration is designed to provide students with the knowledge and skills necessary to function in the printing and publishing industries, and in imaging and web technology careers. Digital Media Technologies Technical Concentration students must take AET 1363 – Graphic Communication Technologies\* (3 credits) plus 12 hours from the following courses:

- AET 2123 – Digital Photography and Imaging. Credits: 3
- AET 3343 – Digital Media Technologies. Credits: 3

(See note below \*)

- AET 4123 – Advanced Digital Photography. Credits: 3
- AET 4333 – Trends in Digital Media Technology. Credits: 3
- AET 4353 – Print and Digital Media Production. Credits: 3

(See note below \*)

- AET 4813 – Advanced Digital Media Technologies. Credits: 3

(See note below \*)

- AET 4863 – Packaging Technologies. Credits: 3
- AET 4865 – Digital Media Publishing Technologies. Credits: 3
- AET 4953 – Color Management Technologies. Credits: 3

**Note:**

\* These courses can be used for the Advertising Interdisciplinary Minor. AET 1363 and AET 3343 are required courses for the Advertising Minor.

**General Concentration**

A minimum of 15 semester hours of AET course work in accordance with the individual's field of interest. In addition, general education and/or core courses cannot be used to fulfill the requirements of the general concentration.

**Integrated Computer Technology Technical Concentration**

A minimum of 15 hours of course work may include study in the areas of programmable logic controllers, robotics with human machine interfacing, automated control through sequentiation and regulation, automatic ID, computerized interfacing and data acquisition, and industrial-based routing and switching telecommunications. Integrated Computer Technology Technical Concentration students must take AET 3103 – Robots and Controls Systems (3 credits) plus 12 hours from the following courses:

- AET 2523 – Routing and Switching Fundamentals. Credits: 3
- AET 3073 – Programmable Logic Controllers. Credits: 3
- AET 3153 – Advanced Routing and Switching. Credits: 3
- AET 4183 – Microcomputer Interfacing and Data Acquisition. Credits: 3
- AET 4274 – Automation and Control Systems. Credits: 4
- AET 4833 – Automatic Identification and Data Capture. Credits: 3

**Manufacturing Technical Concentration**

A minimum of 15 semester hours of course work may include study in the areas of metrology, drafting and design, CAD, CNC, metallurgy, casting, machining technology, fabrication, material handling, robotics, and automation. The concentration must include a minimum of six hours of course work related to industrial processes. Manufacturing Technical Concentration students must take AET 3113 – Manufacturing Machine Processes+ (3 credits) plus 12 hours from the following courses:

- AET 3012 – Metrology and Inspection Procedures. Credits: 2
- AET 3063 – 3-D Modeling. Credits: 3
- AET 3103 – Robots and Control Systems. Credits: 3
- AET 3143 – Manufacturing Fabrication Processes. Credits: 3  
(See Footnote +)
- AET 3203 – Computer Numerical Control Programming. Credits: 3  
(See Footnote +)
- AET 4023 – Manufacturing Automation. Credits: 3
- AET 4274 – Automation and Control Systems. Credits: 4
- AET 4602 – Physical Metallurgy. Credits: 3  
(See Footnote +)
- AET 4673 – Work Measurement and Method Design. Credits: 3
- AET 4803 – Plant Layout and Material Handling. Credits: 3

- AET 4853 – Polymers and Composites. Credits: 3  
(See Footnote +)

**Footnotes Footnote:**

Depending on Foreign Language and Math Placement, additional electives may be needed to meet 120 semester hours.

General Education selections must meet cultural diversity and electronic writing portfolio requirements.

+ Industrial processes course.

\*\* Of the 120 semester hours required to complete the degree, at least 42 semester hours of courses from EIU must be included.

(Major GPA based on all Applied Engineering & Technology courses taken at EIU.)

**Attachment B****Applied Engineering and Technology Minor****Total Hours: ~~21~~ 18-19****12 Semester Hours from:**

- ~~BUS 3010 - Management and Organizational Behavior. Credits: 3~~  
of
- ~~CTE 1420 - Survey of Business Principles. Credits: 3~~
- AET 1263 - Materials Technology. Credits: 3
- **AET 1323 - Computers for Applied Engineering and Technology. Credits: 3**
- **AET 1413 - Technological Systems. Credits: 3**
- AET 2043 - Computer-Aided Engineering Drawing. Credits: 3
- ~~AET 4843 - Statistical Quality Assurance. Credits: 3~~

**2-3 6-7 Semester Hours from:**

- ~~AET 3012 - Metrology and Inspection Procedures. Credits: 2~~  
of
- ~~AET 3043 - Engineering Geometry and Graphics. Credits: 3~~  
of
- **AET 3414 - Selection and Management of Applied Engineering Projects. Credits: 4**
- AET 3703 - Machine Design. Credits: 3  
of
- AET 4002 - Materials Testing. Credits: 3
- **AET 4773 - Safety for Engineering and Technology Professionals. Credits: 3**
- **AET 4843 - Statistical Quality Assurance. Credits: 3**
- **AET 4943 - Manufacturing Management. Credits: 3**

**6-7 Semester Hours of Electives****Electives in Applied Engineering and Technology (excluding AET 2200G and 2300G)**