

1-20-2011

# January 20, 2011

Council on Academic Affairs

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*Agenda for the January 20, 2011 CAA Meeting*

**Items approved:** 11-01, FCS 3370, Ethical Issues in Hospitality Management (New Course)  
11-02, FCS 4320, Destination Management (New Course)  
11-03, Family & Consumer Sciences: Hospitality Management Concentration (Revised Concentration)  
11-04, AET 3253, Energy Technology (New Course)  
11-05, AET 3453, Alternative and Renewable Energy Systems (New Course)  
11-06, AET 4453, Sustainability Topics in Energy (New Course)  
11-07, AET 4873, Current Trends in Energy Technology (New Course)  
11-08, Applied Engineering & Technology (Revised Program)  
11-09, Applied Engineering & Technology: Alternative Energies & Sustainability Concentration (New Concentration)

**Items Pending:** 10-95, Public Relations Minor (Revised Interdisciplinary Minor)  
11-10, HST 3310, Driver Task Analysis (Revised Course)  
11-11, HST 3320, Introduction to Classroom Methods in Driver Education (Revised Course)  
11-12, HST 3360, Classroom and Behind-the-Wheel Teaching Methods for Driver Education (New Course)  
11-13, CDS 4760, Voice Production and Disorders (Revised Course)  
11-14, CDS 4800, Communication Modalities (Revised Course)  
11-15, CDS 4820, Language and Literacy (Revise Course)  
11-16, ESC/GEL 1320G, Geology of National Parks (New Course)  
11-17, Geology Major (Revised Major)  
11-18, Geology Minor (Revised Minor)  
11-19, Geography Minor (Revised Minor)  
11-20, Earth Science Minor (Revised Minor)

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**Council on Academic Affairs  
Minutes**

*January 20, 2011*

The January 20, 2011 meeting of the Council on Academic Affairs was held at 2:00 p.m. in Room 4440, Booth Library.

**Members Present:** Ms. Green, Ms. Henry, Dr. Hoerschelmann, Dr. Klarup, Dr. Lucas, Dr. Mitchell, Ms. Prillaman, Ms. Ruholl, Dr. Shelton, Dr. Sterling, Dr. Throneburg, and Dr. White.

**Members Absent:** None.

**Staff Present:** Provost Lord, Dr. Herrington-Perry, and Ms. Fopay.

**Guest Present:** Dr. Guccione, School of Technology; Thomas Hawkins, School of Technology; and Dr. Wilkinson, Family & Consumer Sciences.

**I. Approval of the December 9, 2010 CAA Meeting Minutes.**

The minutes of December 9, 2010 were approved as written.

**II. Communications:**

**a. Curriculum Committee Minutes:**

1. Minutes of the December 8, 2010 Lumpkin College of Business & Applied Sciences Curriculum Committee meeting.
2. Minutes of the December 8, 2010 College of Arts & Humanities Curriculum Committee meeting.
3. Minutes of the December 10, 2010 College of Sciences Curriculum Committee meeting.
4. Minutes of the December 13, 2010 College of Education & Professional Studies Curriculum Committee meeting.

**b. Waiver Reports:**

1. Academic Waiver Report for December 2010 from the Lumpkin College of Business & Applied Sciences, College of Arts & Humanities, College of Education & Professional Studies, and College of Sciences.

**c. Executive Action Requests:**

1. December 10, 2010 memorandum from Dean Hanner, COS, requesting executive action to add the phrase "Credit/No Credit" to ESC 4275, GEG 4275, and GEL 4275.
2. December 10, 2010 memorandum from Dean Hanner, COS, requesting executive action to change the course starting term for PLS 4600 from Fall 2012 to Fall 2011.
3. December 15, 2010 memorandum from Dean Jackman, CEPS, requesting executive action to revise the prerequisites for HST 3560, 3765, 4770, and 4910.

**d. College Grade Appeals Reports:**

1. Fall 2010 Grade appeals report from the College of Arts & Humanities.

**III. Selection of the Faculty Laureate Committee**

The following council members volunteered to serve on the Faculty Laureate Committee: Dr. Hoerschelmann, Ms. Prillaman, and Dr. Anita Shelton. Dr. Shelton will chair the committee.

Also, the past few years, it has been CAA's practice to ask the previous year's faculty laureate to be a part of the committee. Today, Dr. White indicated he would contact Cameron Craig, 2010 Faculty Laureate, about it.

Deadlines:

- Feb. 25, 2011 – CAA invites nominations for designation of Faculty Laureate.
- March 25, 2011 – Deadline for receipt of Faculty Laureate nominations by CAA.

**IV. Committee Reports:**

None.

**V. Items Added to the Agenda:**

1. 11-10, HST 3310, Driver Task Analysis (Revised Course)
2. 11-11, HST 3320, Introduction to Classroom Methods in Driver Education (Revised Course)
3. 11-12, HST 3360, Classroom and Behind-the-Wheel Teaching Methods for Driver Education (New Course)
4. 11-13, CDS 4760, Voice Production and Disorders (Revised Course)
5. 11-14, CDS 4800, Communication Modalities (Revised Course)
6. 11-15, CDS 4820, Language and Literacy (Revise Course)
7. 11-16, ESC/GEL 1320G, Geology of National Parks (New Course)
8. 11-17, Geology Major (Revised Major)
9. 11-18, Geology Minor (Revised Minor)
10. 11-19, Geography Minor (Revised Minor)
11. 11-20, Earth Science Minor (Revised Minor)

Dr. Sterling moved and Dr. Hoerschelmann seconded the motion to add these items to the agenda.

**VI. Items Acted Upon:****1. 11-01, FCS 3370, Ethical Issues in Hospitality Management (New Course).**

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

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

The proposal was approved, *effective Fall 2011*. The course's initial term of offering will be Spring 2012.

**FCS 3370. Ethical Issues in Hospitality Management. (3-0-3) S. Hospitality Management Ethics.** A focus on ethical decisions made by managers in the hospitality industry when addressing issues related to operations, customers, and employees. Through application of ethical decision making frameworks and utilizing case studies and debates, future hospitality industry leaders will consider the impact of their own personal values and beliefs, and those of others, on business decisions. Prerequisites: FCS 2700 and BUS 3010.

**2. 11-02, FCS 4320, Destination Management (New Course).**

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

Dr. Mitchell moved and Dr. White seconded the motion to approve the proposal. The motion passed with the following vote:

Yes: Green, Henry, Hoerschelmann, Klarup, Lucas, Mitchell, Prillaman, Ruholl, Sterling, White.  
No: None.  
Abstain: Shelton, Throneburg

The proposal was approved, *effective Fall 2011*, pending course fee approval. The course's initial term of offering will be Spring 2012.

**FCS 4320. Destination Management. (3-0-3) S.** An understanding of the roles destination management organizations (DMOs) and convention and visitors bureaus (CVBs) play in the hospitality and tourism industry. Creating and maintaining a destination brand is explored. Includes a study tour. Prerequisites: FCS 2700 and BUS 3470. Restriction: Course may not be taken by students who have completed FCS 4230 - Special Topics in Family and Consumer Sciences: Hospitality Travel Planning and Study Tour.

**3. 11-03, Family & Consumer Sciences: Hospitality Management Concentration (Revised Concentration).**

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

Ms. Ruholl moved and Dr. Sterling seconded the motion to approve the proposal. The motion passed unanimously.

The proposal (**See Attachment A**) was approved, *effective Fall 2011*.

**4. 11-04, AET 3253, Energy Technology (New Course).**

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

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

The proposal was approved, *effective Fall 2011*. The course's initial term of offering will be Fall 2011.

**AET 3253. Energy Technology. (3-0-3) On Demand. Energy Tech.** A study of energy sources and energy conversion processes involving electrical, mechanical, fluidic, and other methods. Includes theory of conversion, principles of operation and basic design. Prerequisite: MAT 1270 or Math ACT score of 20 or higher.

**5. 11-05, AET 3453, Alternative and Renewable Energy Systems (New Course).**

Dr. Guccione presented the proposal and answered questions of the council. Dr. Guccione noted a correction to the course prerequisite shown on the proposal. The course number of the prerequisite should be AET 3253 rather than AET 3053.

Dr. Shelton moved and Dr. Klarup seconded the motion to approve the proposal. The motion passed unanimously.

The proposal, with a revision, was approved, *effective Fall 2011*. The course's initial term of offering will be Spring 2012.

**AET 3453. Alternative and Renewable Energy Systems. (3-0-3) On Demand. Alternate-Renewable Energy.** A study of the technology and systems of alternative and renewable energy resources with emphasis on energy generation and utilization for heating, cooling, electrical generation, industrial processes, transportation, residential and commercial uses. Prerequisite: AET 3253.

**6. 11-06, AET 4453, Sustainability Topics in Energy (New Course).**

Dr. Guccione and Dr. Hawkins presented the proposal and answered questions of the council. The council noted a minor correction to the course's prerequisite course title shown on the proposal.

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

The proposal, with a revision, was approved, *effective Fall 2011*. The course's initial term of offering will be Fall 2012.

**AET 4453. Sustainability Topics in Energy. (3-0-3) On Demand. Energy Sustainability.** An in-depth examination of current and future issues, problems, policies, and other areas in energy sustainability. Topics include but not limited to biofueled boilers, energy conservation, creating synthetic fuels, nuclear fuel usages, exotic fuels research, and availability of traditional fuels such as fossil fuels. Prerequisite: AET 3453.

**7. 11-07, AET 4873, Current Trends in Energy Technology (New Course).**

Dr. Guccione presented the proposal and answered questions of the council. The council noted a minor correction to Part IV, 1 of the proposal.

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

The proposal, with a revision, was approved, *effective Fall 2011*. The course's initial term of offering will be Spring 2013.

**AET 4873. Current Trends in Energy Technology. (3-0-3) On Demand. Trends in Energy.** A comparative study of the trends, analyses, and policies of alternative energy technologies as applied to the availability of the technology and how it can be incorporated into commercial, residential, industrial, and other processes.

**8. 11-08, Applied Engineering & Technology (Revised Program).**

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

Ms. Ruholl moved and Dr. Klarup seconded the motion to approve the proposal. The motion passed unanimously.

The proposal (**See Attachment B**) was approved, *effective Fall 2011*.

**9. 11-09, Applied Engineering & Technology: Alternative Energies & Sustainability Concentration (New Concentration).**

Dr. Guccione and Dr. Hawkins presented the proposal and answered questions of the council. The council requested that the proposal be revised to clarify required courses for the concentration.

Dr. Shelton moved and Dr. Hoerschelmann seconded the motion to approve the proposal. The motion passed unanimously.

The proposal (**See Attachment C**), with revisions, was approved, *effective Fall 2011*.

**VII. Pending:**

1. 10-95, Public Relations Minor (Revised Interdisciplinary Minor)

**VIII. Meeting Adjournment:**

1. Dr. Sterling moved and Dr. Lucas seconded the motion to adjourn the meeting. The motion was approved by acclamation.

The meeting adjourned at 3:10 p.m.

–Minutes prepared by Ms. Janet Fopay, Recording Secretary

The next meeting will be held Thursday, January 27, 2010.

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 \*\*\*\*\*

January 27, 2010

Conference Room 4440 – Booth Library @ 2:00 p.m.

**Agenda:**

1. 11-10, HST 3310, Driver Task Analysis (Revised Course)
2. 11-11, HST 3320, Introduction to Classroom Methods in Driver Education (Revised Course)
3. 11-12, HST 3360, Classroom and Behind-the-Wheel Teaching Methods for Driver Education (New Course)
4. 11-13, CDS 4760, Voice Production and Disorders (Revised Course)
5. 11-14, CDS 4800, Communication Modalities (Revised Course)
6. 11-15, CDS 4820, Language and Literacy (Revised Course)
7. 11-16, ESC/GEL 1320G, Geology of National Parks (New Course)
8. 11-17, Geology Major (Revised Major)
9. 11-18, Geology Minor (Revised Minor)
10. 11-19, Geography Minor (Revised Minor)
11. 11-20, Earth Science Minor (Revised Minor)

Pending: 10-95, Public Relations Minor (Revised Interdisciplinary Minor)

**Approved Executive Actions:**

None.

**Pending Executive Actions:**

**CEPS**

**Effective Fall 2011**

1. Revise the prerequisites for HST 3560.

**HST 3560 - Women's Health.**

(3-0-3) F, S. An examination of the biological and psychosocial dimensions of women's health; the relationship between women and the health care system, and the impact of cultural stereotyping on women's physical and emotional health. Prerequisites and Notes: ENG 1002 **or permission of the instructor**. Credits: 3

2. Change the prerequisites for HST 3765.

**HST 3765 - Principles of Epidemiology.**

(3-0-3) F, S. Introduction to the concepts, principles, and methods generally useful in the surveillance and investigation of a health problem. Prerequisites and Notes: HST 2270 **or permission of the instructor**. Credits: 3

3. Update the prerequisites for HST 4770.

**HST 4770 - Health Services Administration.**

(3-0-3) F, S. Examination of the health service sector, applications of administrative and management concepts, including social administration, biomedical and business ethics, and management theory. WI Prerequisites and Notes: **ENG 1002, HST 2250, HST 2270, HST 3700, and HST 3750 or permission of the instructor. ENG 1002G, HST 2250, 2270, 3700, and 75 hours completed, or permission of the instructor.** Credits: 3

4. Delete the prerequisites for HST 4910.

**HST 4910 - Applied Health Communication.**

(3-0-3) S. An examination of applied health communication in the interpersonal, organizational, and mediated contexts. Emphasis is on higher order application of skills from different occupational perspectives. Cross-listed with CMN 4910. Prerequisites & Notes: CMN/HST 3910 or permission of instructor. Credits: 3

**COS****Effective Fall 2011**

1. Add the phrase "Credit/No Credit" to the course description of ESC 4275.

**ESC 4275 - Internship in Earth Science.**

(Arr.-Arr.-1-6) **(Credit/No Credit)** On Demand. An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Earth Science minor. Prerequisites and Notes: Completion of at least 9 hours of course work toward Earth Science minors, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. The course may be repeated to a maximum of 12 semester hours. Credits: 1 to 6

2. Add the phrase "Credit/No Credit" to the course description of GEG 4275.

**GEG 4275 - Internship in Geography.**

(Arr.-Arr.-1-6) **(Credit/No Credit)** On Demand. An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Geography minor. Prerequisites and Notes: Completion of at least 9 hours of course work toward Geography major or minor, permission of the Geology/Geography Chair, the Internship Coordinator, and acceptance of the student by a business or agency. The course may be repeated to a maximum of 12 semester hours. Credits: 1 to 6

3. Add the phrase "Credit/No Credit" to the course description of GEL 4275.

**GEL 4275 - Internship in Geology.**

(Arr.-Arr.-1-6) **(Credit/No Credit)** On Demand. An individually planned work experience in a business or agency appropriate to the student's area of specialization. Prerequisites and Notes: Completion of at least 9 hours of course work toward Geology major or minor, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. The course may be repeated to a maximum of 12 semester hours. Credits: 1 to 6

4. Change the initial term of offering for PLS 4600 from Fall 2012 to Fall 2011.

**PLS 4600 - Political Science Capstone.**

(3-0-3) F, S. Analysis of classic and contemporary issues in Political Science research, with an emphasis on integrating undergraduate coursework and research experience. WI Prerequisites and Notes: Completion of PLS 1153G/1193G, PLS 2253G/2293G, PLS 1003, PLS 2001, PLS 2103, PLS 2603, PLS 2033, and 9 hours in Political Science Field Requirements. Restricted to undergraduate Political Science majors and Political Science majors with International Studies Option who have completed at least 75 hours, and have completed the course prerequisites.

**Attachment A****Family and Consumer Sciences:****Hospitality Management Concentration**

49 semester hours required.

- BIO 1004G - Practical Microbiology. Credits: 3  
(Counted in General Education)
- BUS 2750 - Legal and Social Environment of Business. Credits: 3
- ECN 2801G - Principles of Macroeconomics. Credits: 3  
(Counted in General Education)
- FCS 1120 - Food Selection and Preparation. Credits: 3
- FCS 1121 - Food Service Sanitation. Credits: 1
- FCS 2700 - The Hospitality Industry. Credits: 3
- FCS 2740 - Lodging Operations. Credits: 3
- FCS 2780 - Culinary Pricing and Conversions Credits: 1
- FCS 3784 - Commercial Quantity Food Production. Credits: 5
- FCS 3786 - Hospitality Operations and Cost Control. Credits: 3

**Additional 15 hours from the following:**

- FCS 2100 - Nutrition in a Global Society. Credits: 3
- FCS 2784 - Hospitality Sales and Service. Credits: 3
- FCS 3340 - Club Management. Credits: 3
- **FCS 3370 - Ethical Issues in Hospitality Management. Credits: 3**
- FCS 3740 - Professional Hospitality Meeting Management. Credits: 3
- FCS 4275 - Internship. Credits: 3 to 9
- **FCS 4320 - Destination Management. Credits: 3**
- FCS 4340 - Conventions and Trade Shows. Credits: 3
- FCS 4345 - Advanced Lodging Administration. Credits: 3
- FCS 4350 - Dining Room Management. Credits: 3
- FCS 4940 - Food Systems Management. Credits: 3
- REC 3310 - Travel and Tourism. Credits: 3 \

**Requirements for the Business Minor**

- BUS 2710 - Survey of Finance. Credits: 3
- BUS 3010 - Management and Organizational Behavior. Credits: 3
- BUS 3470 - Principles of Marketing. Credits: 3

**Additional 3 semester hours from the following courses to fulfill the Business Minor**

- BUS 2102 - Managerial Accounting. Credits: 3
- BUS 2810 - Business Statistics I. Credits: 3
- BUS 3200 - International Business Credits: 3
- BUS 3500 - Management Information Systems. Credits: 3
- ENT 3300 - Foundations of Entrepreneurship. Credits: 3
- FIN 3720 - Investments. Credits: 3
- FIN 3740 - Real Estate Fundamentals. Credits: 3
- FIN 3750 - Management of Financial Institutions. Credits: 3
- FIN 3770 - Working Capital Management. Credits: 3
- MAR 3720 - Consumer Behavior. Credits: 3
- MAR 3780 - Promotion Management. Credits: 3
- MAR 3875 - Retail Management. Credits: 3
- MAR 4490 - International Marketing. Credits: 3
- MGT 3450 - Human Resource Management. Credits: 3
- MIS 2000 - Information Systems Careers and Logic Skills. Credits: 3

- MIS 3200 - Networking Fundamentals. Credits: 3
- MIS 3505 - Advanced Microcomputer Applications and Development. Credits: 3
- MIS 3515 - Information Presentation. Credits: 3
- MIS 3530 - Business Web Site Design. Credits: 3

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

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.\*\*

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

5 courses in Introduction to Technological Studies	15 hrs
3 courses in Technical Development	9 hrs
<b>4 5</b> courses in Professional Development	<b>12 16</b> 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>53 - 56 57 - 60</b> hrs
15 Concentration Hours	15 hrs
<b>Total Major Hours</b>	<b>68 - 71 72 - 75</b> hrs

**Major**

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 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
- 

**Technical Development (9 hrs outside of declared concentration)**

- AET 1363 - Graphic Communication Technologies. Credits: 3
- AET 2043 - Computer-Aided Engineering Drawing. Credits: 3
- AET 2253 - Construction Equipment and Materials. Credits: 3
- AET 2523 - Routing and Switching Fundamentals. Credits: 3
- AET 3103 - Robots and Control Systems. Credits: 3
- AET 3113 - Manufacturing Machine Processes. Credits: 3
- AET 4002 - Materials Testing. Credits: 3
- AET 4853 - Polymers and Composites. Credits: 3

**Professional Development (12 16 hrs)**

- **AET 3414 - Selection and Management of Technical Projects. Credits 4**
- AET 4823 - Facility Security. 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:****Automation and Control 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.

**Automation and Control 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

**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 Printing, Imaging, and Web Technology 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 Printing, Imaging, and Web Technology 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 Capture for WEB and Print Publishing. 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 Design, Specialty Inks, and Coatings. Credits: 3
- AET 4953 - Color Management Applications: Print, Textiles, Web, and other Substrates. 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.

**Production 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. **Production 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 +)

**General Concentration**

A minimum of **15** semester hours of course work from any **two** of the above concentrations. A maximum of six (6) of the required fifteen (15) hours may be met with Technical Development courses within the two concentrations. Cross-listed courses will not be counted twice.

**Footnotes:**

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.)

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**Attachment C****Applied Engineering and Technology:****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 Construction. Credits: 3
- AET 4275 – Industrial Internship. Credits: 3
- AET 4453 – Sustainability in Energy. Credits: 3
- AET 4873 – Trends in Energy Technology. Credits: 3