

**UNDERGRADUATE
COURSE AND CURRICULUM CHANGES
APPROVED BY THE
COLLEGE OF TECHNOLOGY AND AVIATION FACULTY**

**12:30 p.m., November 20, 2007
College Center Conference Room**

IMPACT STATEMENT: The following departments have been contacted regarding the potential impact of this program: Arts & Sciences Dean's Office, Art Department, Computer Science, Journalism & Mass Communication, Engineering Technology (Salina), and Arts, Sciences and Business (Salina)

Please provide the sponsors of a proposed change with any information regarding fiscal or programmatic impact on your department, program or students.

COURSE DELETIONS:

- DROP:** AVMR 220. Aviation Maintenance Review/General. (4)
AVMR 230. Aviation Maintenance Review/Airframe. (4)
AVMR 250. Aviation Maintenance Review/Powerplant. (4)
- RATIONALE:** These courses are no longer being taught and are not needed to support any curriculum.
- IMPACT:** No impact on other departments.
- EFFECTIVE DATE:** Fall 2008.
- Delete:** **CET 340. Mechanical and Electrical Systems.** (3) II. A study of the way mechanical and electrical systems are used in the construction of a building by a contractor. Systems include plumbing, heating, ventilation, and air conditioning. Two hours lec. and two hours lab a week. Pr.: MATH 151, PHYS 113, and CET 241.
- RATIONALE:** Dividing the Mechanical and Electrical Systems course will allow for a more in-depth study of each topic. Researching other degree programs and speaking with industry representatives, we believe that exploring each area separately would better fit the needs of our students.
- IMPACT:** No impact on other departments.
- EFFECTIVE DATE:** Fall 2008.

COURSE ADDITIONS:

- ADD:** **CMST 115. Graphics Software Applications.** (3) I, II. Introduction to popular graphics software application packages. Emphasis is on design concepts, color usage, image and concept development and creative problem solving using graphics software. Students are required to complete assignments on the computer, some of which are completed outside of class. Pr.: Experience with PC software.
- RATIONALE:** This course will provide foundational graphics software skills necessary for later courses in digital media technologies.
- IMPACT:** Affected departments have been contacted.
- CONTACT:** Bill Genereux (826-2927 billgx@ksu.edu)
- EFFECTIVE DATE:** Fall 2008.
- ADD:** **CMST 146. Digital Photography.** (3) I,II. Introduces basic photographic techniques and computer assisted image manipulation. Topics include: basic camera functions, basic digital image processing, visualization and design skills and digital manipulation techniques needed in today's market place. Students have opportunities to create portfolio pieces. Pr.: Experience with PC software.
- RATIONALE:** The digital image is fundamental to modern communications. Images are used on websites, in printed publications, and within interactive digital applications, but most of the imagery created today originates from digital photographs. This course will introduce concepts of digital photography and will be a required course in the digital media degree program.
- IMPACT:** Affected departments have been contacted.
- CONTACT:** Bill Genereux (826-2927 billgx@ksu.edu)

EFFECTIVE DATE: Fall 2008.

ADD: **CMST 216. Digital Media I.** (3) II. Hands-on experience dealing with the elements and principles of digital communications working with industry-standard software for photo editing, illustration, and page layout. Students have the opportunity to produce portfolio pieces. Pr.: CMST 115 and CMST 137.

RATIONALE: This course will formally introduce digital media as a professional field of study. It will serve as the first major course in the digital media degree program using skills acquired in the previous graphics software and visual literacy courses.

CONTACT: Bill Genereux (826-2927 billgx@ksu.edu)

IMPACT: Affected departments have been contacted.

EFFECTIVE DATE: Fall 2008.

ADD: **CMST 306. Digital Media II.** (3) I. An intermediate course dealing with the elements and principles of digital communications working with industry standard software involved in video editing, audio editing, photo editing, vector drawing and page layout. Students have the opportunity to produce portfolio pieces. Pr.: CMST 216.

RATIONALE: This course will continue studies in the field of digital media. It will build upon skills acquired in previous digital media courses and serve as the second major course in the digital media degree program using skills acquired in the Digital Media I course.

IMPACT: Affected departments have been contacted.

CONTACT: Bill Genereux (826-2927 billgx@ksu.edu)

EFFECTIVE DATE: Fall 2008.

ADD: **CMST 323. Game Programming.** (3) I. An introduction to computer game programming. Topics include game mathematics and physics, tile-based virtual worlds, artificial intelligence, and game graphics. Students design, develop, and present a functioning computer game as a capstone course project. Pr.: CMST 247.

RATIONALE: The course will serve as an elective in the CMST degree programs.

IMPACT: Affected departments have been contacted.

CONTACT: Bill Genereux (826-2927 billgx@ksu.edu)

EFFECTIVE DATE: Fall 2008.

ADD: **CMST 326. Page Layout and Type.** (3) I. An intermediate course dealing with typographic design concepts, color usage, image development, idea development, and creative problem solving. Addresses typographic principles, techniques and development of a personal style to create typographic designs that are technically sound and visually interesting. Pr.: CMST 216.

RATIONALE: The course will serve as a core component of the digital media degree and will also be useful to students studying website development and technical writing.

IMPACT: Affected departments have been contacted.

CONTACT: Bill Genereux (826-2927 billgx@ksu.edu)

EFFECTIVE DATE: Fall 2008.

ADD: **CMST 336. Digital Media Project.** (3) II. Provides sophomores with the capstone experience of developing a professional quality project in digital media. Students learn problem solving

through the design process used in digital media development. Pr.: CMST 216 and sophomore standing.

RATIONALE: The course will serve as an elective in the CMST degree programs.

IMPACT: Affected departments have been contacted.

CONTACT: Bill Genereux (826-2927 billgx@ksu.edu)

EFFECTIVE DATE: Fall 2008.

ADD: **CET 222. Construction Safety.** (2) I. How to maintain safe working areas within unsafe working conditions. Particularly the recognition and prevention of unsanitary, dangerous, or hazardous conditions to workers in the construction industry. Instruction focuses on federal safety standards related to construction.

RATIONALE: With the exponential growth in construction activity, safety has become an integral factor associated with a company's fiscal success. Speaking with industry representatives and the advisory board we have concluded that there is an prevailing need to add a class that introduces this subject matter to CET students.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2008.

ADD: **CET 341. Mechanical Systems.** (3) I. The way mechanical systems, including plumbing, heating, ventilation, and air conditioning are used by contractors to construct a building. Two hours lec. and two hours lab a week. Pr.: MATH 151 and PHYS 113. Coreq.: CET 241.

RATIONALE: Dividing the former Mechanical and Electrical Systems course will allow for a more in-depth study of each topic. Researching other degree programs and speaking with industry representatives, we believe that a deeper exploration of this subject is needed.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2008.

ADD: **CET 342. Electrical Systems.** (3) II. The way electrical systems, including design and wiring, and power and lighting systems are used by contractors to construct a building. Two hours lec. and two hours lab a week. Pr.: MATH 151 and PHYS 113. Coreq.: CET 241.

RATIONALE: Dividing the former Mechanical and Electrical Systems course will allow for a more in-depth study of each topic. Researching other degree programs and speaking with industry representatives, we believe that a deeper exploration of this subject is needed.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2008.

COURSE MODIFICATIONS:

FROM: **AVM 241. Navigational Aids and Communication Systems.** (3) I. A survey study of the aids to navigation and communications used in light and intermediate class aircraft. Operation and installation of the various types of equipment will be stressed. Two hours lec. and ~~six~~ hours lab a week. Pr.: AVM 111 or ~~ECET 400~~.

TO: **AVM 241. Navigational Aids and Communication Systems.** (3) I. A survey study of the aids to navigation and communications used in light and intermediate class aircraft. Operation and installation of the various types of equipment will be stressed. Two hours lec. and three hours lab a week. Pr.: AVM 111.

RATIONALE: The purpose of this change is to correct a mistake in the course description from six lab hours to three. Creation of AVM 242 allows the ET students to attend AVM 241, without the time requirements of an FAR 147 approved class. The ECET requirement for AVM 241 is no longer necessary.

IMPACT: No impact on any other department, because of the creation of AVM 242.

EFFECTIVE DATE: Fall 2008

FROM: **AVM 142. Airframe Systems.** (4) II. A study of the airframe systems and components to include: pressurization, heating, and cooling, and structural device. Two hours lec. and six hours lab a week. ~~Pr.: AVM 141.~~

TO: **AVM 142. Airframe Systems.** (4) II. A study of the airframe systems and components to include: pressurization, heating, and cooling, and structural device. Two hours lec. and six hours lab a week.

RATIONALE: During a review of prerequisites for this course, it was discovered that AVM 141 Aircraft Science is no longer needed.

IMPACT: No impact on any other department.

EFFECTIVE DATE: Fall 2008

FROM: **AVM 132. Aircraft Fluid Power.** (3) II. A study of basic fluid mechanics as it applies to practical applications in aircraft systems. Compressible and incompressible fluid systems will be studied. Two hours lec. and three hours lab a week. ~~Pr.: AVM 141.~~

TO: **AVM 132. Aircraft Fluid Power.** (3) II. A study of basic fluid mechanics as it applies to practical applications in aircraft systems. Compressible and incompressible fluid systems will be studied. Two hours lec. and three hours lab a week.

RATIONALE: During a review of prerequisites for this course, it was discovered that AVM 141 Aircraft Science is no longer needed.

IMPACT: No impact on any other department.

EFFECTIVE DATE: Fall 2008

FROM: **PPIL 386. Aerodynamics.** (3) II. This course covers incompressible flow theory and wing theory as well as calculations of stall speed, drag, and basic performance criteria. This course also examines configuration changes, high and low speed conditions, and special flight operations. Stability and control, weight and balance, and operational data are also examined. Aerodynamic performance of aircraft powered by reciprocating, turboprop, and jet turbine engines are considered. The student will be introduced to aircraft design and high-speed aerodynamics. Pr.: PPIL 111 or AVM 141.

- TO:** **PPIL 386. Aerodynamics.** (3) II. This course covers incompressible flow theory and wing theory as well as calculations of stall speed, drag, and basic performance criteria. This course also examines configuration changes, high and low speed conditions, and special flight operations. Stability and control, weight and balance, and operational data are also examined. Aerodynamic performance of aircraft powered by reciprocating, turboprop, and jet turbine engines are considered. The student will be introduced to aircraft design and high-speed aerodynamics. Pr.: MATH 100; and PPIL 111 or AVM 141.
- RATIONALE:** Topics covered in PPIL 386 use skills learned in MATH 100.
- CONTACT:** Barney King (826-2683 kingb@ksu.edu)
- IMPACT:** No impact on any other departments. Students are already required to take MATH 100 in both the PPIL and PPILB programs. They now will have to complete it before enrolling in this class.
- EFFECTIVE DATE:** Fall 2008.
- FROM:** ~~**CMST 137. Fundamentals of Web Design.** (3) I, II. An examination of the elements of visual design and a general overview of the website design process. Topics include design elements, color theory, graphics creation and optimization, style sheets, and multimedia. Pr. or core.: CMST 135.~~
- TO:** **CMST 137. Fundamentals of Visual Literacy.** (3) I. An examination of the elements of visual design essential to communication with digital media technology. Topics include design elements, color theory, graphics creation and optimization, and multimedia. Students receive hands-on experience with the elements and principles of visual literacy and working with 2-D and 3-D organization. Pr.: Experience with PC software.
- RATIONALE:** The design concepts addressed in this course remain unchanged; however the focus is no longer limited to the World Wide Web. This course will provide students with a foundation in visual communication that will be used in subsequent digital media courses such as web development, digital media and technical writing.
- IMPACT:** Affected departments have been contacted.
- CONTACT:** Bill Genereux (826-2927 billgx@ksu.edu)
- EFFECTIVE DATE:** Fall 2008.
- FROM:** ~~**CET 210. Introduction to Construction Computer Applications.** (3) I. Computer operating systems, spreadsheets, scheduling software, and Visual Basic for construction applications. Two hours lecture and two hours lab a week. Pr.: MATH 151.~~
- TO:** **CET 210. Problem Solving with Computer Applications.** (2) I. In-depth preparation with computer operating systems, spreadsheets, scheduling software and Visual Basic for construction applications. One hour lec. and one hour lab a week. Pr.: MATH 151 and CMST 108.
- RATIONALE:** With the addition of CMST 108 as a prerequisite to this course, CET 210 will become a more project-oriented, problem solving course rather than an introduction to these useful software packages.
- IMPACT:** No impact on other departments.
- EFFECTIVE DATE:** Fall 2008

CURRICULUM MODIFICATION (PPILB):

**BACHELOR OF SCIENCE
 in
 AERONAUTICAL TECHNOLOGY
 PROFESSIONAL PILOT
 (current)**

Freshman Fall Semester		hrs.
PPIL 111	Private Pilot	4
PPIL 113	Private Pilot Flight Lab	1
MATH 100	College Algebra	3
ENGL 100	Expository Writing I	3
PPIL 100	Introduction to Aviation	<u>3</u>
		14

Freshman Spring Semester		hrs.
PPIL 112	Professional Instrument Pilot	3
PPIL 114	Professional Instrument Pilot Flight Lab I	1
SPCH 106	Public Speaking I	3
PPIL 342	Aviation Meteorology	4
MATH 150	Plane Trigonometry	3
PSYCH 110	General Psychology	<u>3</u>
		17

Sophomore Fall Semester		hrs.
PPIL 212	Professional Instrument Pilot Flight Lab II	2
MATH 205	General Calculus and Linear Algebra	3
ENGL 200	Expository Writing II	3
PHYS 113	General Physics I	4
PPIL 211	Professional Commercial Pilot	<u>3</u>
		15

Sophomore Spring Semester		hrs.
ENGL 302	Technical Writing	3
PPIL 213	Professional Commercial Pilot Flight Lab	2
PPIL 415	Human Factors in Aviation	3
PPIL 386	Aerodynamics	3
ECON110	Principles of Macroeconomics	3
Computer Elective		<u>3</u>
		17

**BACHELOR OF SCIENCE
 in
 AERONAUTICAL TECHNOLOGY
 PROFESSIONAL PILOT
 (proposed)**

Freshman Fall Semester		hrs.
PPIL 111	Private Pilot	4
PPIL 113	Private Pilot Flight Lab	1
MATH 100	College Algebra	3
ENGL 100	Expository Writing I	3
PPIL 100	Introduction to Aviation	<u>3</u>
		14

Freshman Spring Semester		hrs.
PPIL 112	Professional Instrument Pilot	3
PPIL 114	Professional Instrument Pilot Flight Lab I	1
SPCH 106	Public Speaking I	3
PPIL 342	Aviation Meteorology	4
MATH 150	Plane Trigonometry	3
PSYCH 110	General Psychology	<u>3</u>
		17

Sophomore Fall Semester		hrs.
PPIL 212	Professional Instrument Pilot Flight Lab II	2
MATH 205	General Calculus and Linear Algebra	3
ENGL 200	Expository Writing II	3
PHYS 113	General Physics I	4
PPIL 211	Professional Commercial Pilot	<u>3</u>
		15

Sophomore Spring Semester		hrs.
ENGL 302	Technical Writing	3
PPIL 213	Professional Commercial Pilot Flight Lab	2
PPIL 415	Human Factors in Aviation	3
PPIL 386	Aerodynamics	3
ECON110	Principles of Macroeconomics	3
Computer Elective		<u>3</u>
		17

Junior Fall Semester		hrs.
PPIL 312	CFI Ground School	6
PPIL 425	Advanced Aircraft Systems	3
CMST 104	Database Management	2
	Humanities/social science elective	<u>3</u>
		14

Junior Spring Semester		hrs.
Elective	Aviation	3
PPIL 262	Multi-Engine Ground School	1
PPIL 263	Multi-Engine Flight Lab	1
PPIL 314	CFI Flight Lab	2
ECON 120	Principles of Microeconomics	3
BUS 315	Supervisory Management	3
	Humanities/social science elective	<u>3</u>
		16

Senior Fall Semester		hrs.
PPIL 482	CFI Instrument Ground School	1
PPIL 483	CFI Instrument Flight Lab	1
PPIL 450	Aviation Safety Management	3
MKTG 400	Marketing	3
STAT 325	Introduction to Statistics	3
	Aviation Elective**	3
	Business/management elective	<u>3</u>
		17

Senior Spring Semester		hrs.
PPIL 440	Air Carrier Operations	3
PPIL 445	Aviation Law	3
	Aviation Elective	2
	Natural science elective	3
	Aviation Elective	3
		14
** Marked electives must be upper division courses, 300 and above		
UPPER LEVEL HOURS REQUIRED		45
UPPER LEVEL HOURS IN AVIATION ELECTIVES REQUIRED		<u>3</u>

TOTAL HOURS REQUIRED: 124 hrs

Junior Fall Semester		hrs.
PPIL 312	CFI Ground School	6
PPIL 425	Advanced Aircraft Systems	3
CMST 104	Database Management	2
	Humanities/social science elective	<u>3</u>
		14

Junior Spring Semester		hrs.
Elective	Aviation	3
PPIL 262	Multi-Engine Ground School	1
PPIL 263	Multi-Engine Flight Lab	1
PPIL 314	CFI Flight Lab	2
ECON 120	Principles of Microeconomics	3
BUS 315	Supervisory Management	3
	Humanities/social science elective	<u>3</u>
		16

Senior Fall Semester		hrs.
PPIL 482	CFI Instrument Ground School	1
PPIL 483	CFI Instrument Flight Lab	1
PPIL 450	Aviation Safety Management	3
MKTG 400	Marketing	3
STAT 325	Introduction to Statistics	3
	Aviation Elective	3
	Business/management elective	<u>3</u>
		17

Senior Spring Semester		hrs.
PPIL 440	Air Carrier Operations	3
PPIL 445	Aviation Law	3
	Aviation Elective	2
	Natural science elective	3
	<u>Culminating Aviation Experience</u>	<u>3</u>
	<u>COT 495 Industrial Internship</u>	
	<u>or PPIL 416 Crew Resource Management</u>	
	<u>or PPIL 455 Current Trends & Issues</u>	
	<u>in Aviation</u>	

UPPER LEVEL HOURS REQUIRED 14

UPPER LEVEL HOURS REQUIRED 45

TOTAL HOURS REQUIRED: 124 hrs

RATIONALE: This change is a result of an accreditation requirement change by the Aviation Accreditation Board International requiring a significant culminating aviation experience.

IMPACT: There may be an increased number of students enrolling in internships.

CONTACT: Bernard F. King, Program Lead
Phone: 785 826-2683. email: kingb@sal.ksu.edu

EFFECTIVE DATE: Fall 2008

CURRICULUM MODIFICATION (ETA-EC):

**ASSOCIATE OF TECHNOLOGY
 IN
 ELECTRONIC AND COMPUTER
 ENGINEERING TECHNOLOGY**

(Current)

Freshman year

Fall semester.

ECET 100	Basic Electronics	4
MATH 100	College Algebra	3
MATH 151	Applied Plane Trigonometry	2
ENGL 100	Expository Writing I.....	3
SPCH 105	Public Speaking 1A.....	2
ETA 020	Engineering Technology Seminar	0
		14

Spring semester

ECET 101	Direct Current Circuits	3
ECET 110	Semiconductor Electronics	4
MATH 220	Analytic Geom. & Calculus I	4
PHYS 113	Gen. Physics I	4
CMST 110	Introduction to Visual Basic.....	3
		18

Sophomore year

Fall semester

ECET 201	Alternating Current Circuits.....	4
ECET 210	Linear Circuit Applications	4
ECET 240	Electronic Manufacturing	3
ECET 250	Digital Logic	4
ENGL 202	Technical Writing	3
		18

Spring semester

CMST 250	Computer Networking I.....	3
ECET 330	Industrial Controls.....	4
ECET 350	Microprocessor Fundamentals	4
CHM 110	General Chemistry.....	3
CHM 111	General Chemistry Laboratory.....	1
	Humanities/Social Science Elective.....	3
		18

TOTAL HOURS REQUIRED: 68

**ASSOCIATE OF TECHNOLOGY
 IN
 ELECTRONIC AND COMPUTER
 ENGINEERING TECHNOLOGY**

(Proposed)

Freshman year

Fall semester.

ECET 100	Basic Electronics	4
MATH 100	College Algebra	3
MATH 151	Applied Plane Trigonometry	2
ENGL 100	Expository Writing I.....	3
SPCH 105	Public Speaking 1A.....	2
ETA 020	Engineering Technology Seminar	0
		14

Spring semester

ECET 101	Direct Current Circuits	3
ECET 110	Semiconductor Electronics	4
MATH 220	Analytic Geom. & Calculus I	4
PHYS 113	Gen. Physics I	4
CMST 103	Introduction to Program Design.....	3

Sophomore year

Fall semester

ECET 201	Alternating Current Circuits.....	4
ECET 210	Linear Circuit Applications	4
ECET 240	Electronic Manufacturing	3
ECET 250	Digital Logic	4
ENGL 202	Technical Writing	3
		18

Spring semester

CMST 250	Computer Networking I.....	3
ECET 330	Industrial Controls.....	4
ECET 350	Microprocessor Fundamentals	4
CHM 110	General Chemistry.....	3
CHM 111	General Chemistry Laboratory.....	1
	Humanities/Social Science Elective.....	3
		18

TOTAL HOURS REQUIRED: 68

RATIONALE:

ECET's assessment of programming skills in digital systems courses has revealed that students need to be better preparation in the area of language-independent programming logic. Introduction to Program Design (CMST 103) will address this need by covering fundamental programming concepts that are essential to programming competencies required for digital electronic courses, which include Digital Logic (ECET 250), Microprocessor

Fundamentals (ECET 350), Digital Systems (ECET 352), and Digital Systems and Computer Architecture (ECET 450).

CONTACT: Saeed Khan, Program Coordinator, Electronic and Computer Engineering Technology Program, 826-2675, saeed@sal.ksu.edu

IMPACT: No departments outside Engineering Technology of College of Technology and Aviation will be affected by the proposed changes.

EFFECTIVE DATE: Fall 2008.

CURRICULUM MODIFICATION (ETA-CN):

ASSOCIATE OF TECHNOLOGY		
in		
Engineering Technology, Construction Option		
(current)		
Freshman Fall Semester		
MATH 100	College Algebra	3
MATH 151	Applied Plane Trigonometry	2
ENGL 100	Expository Writing 1	3
MET 111	Technical Graphics	3
CET 120	Material Sampling and Testing	2
University General Education		3
ETA 020	Engineering Technology Seminar	0
		<u>16</u>
Freshman Spring Semester		
PHYS 113	General Physics I	4
MATH 220 Analytic Geometry & Calculus 1		4
CET 130	Plane Surveying	4
CET 320	Construction Materials	2
SPCH 105	Public Speaking 1A	2
ETA 020 Engineering Technology Seminar		0
		<u>16</u>
Sophomore Fall Semester		
CET 241	Const. Methods & Estimating	2
CET 410	Managerial & Engineering Econ.	3
CET 350	Site Construction	3
CET 211 Statics		3
CET 210 Intro Const Comp Apps		3
University General Education		3
		<u>17</u>
Sophomore Spring Semester		
CET 340 Mechanical & Electrical Systems		3
ENGL 302	Technical Writing	3
SPAN 110	Conversational Spanish	3
MET 245 Material Strength & Testing		3
CET 351	Const. Tech. & Detailing	3
		<u>15</u>
TOTAL HOURS REQUIRED: 64 hrs		

ASSOCIATE OF TECHNOLOGY		
in		
Engineering Technology, Construction Option		
(proposed)		
Freshman Fall Semester		
MATH 100	College Algebra	3
MATH 151	Applied Plane Trigonometry	2
ENGL 100	Expository Writing 1	3
MET 111	Technical Graphics	3
CET 120	Material Sampling and Testing	2
CMST 108	PC Desktop Software	3
ETA 020	Engineering Technology Seminar	0
		<u>16</u>
Freshman Spring Semester		
PHYS 113	General Physics I	4
CET 222 Construction Safety		2
CET 130	Plane Surveying	4
CET 320	Construction Materials	2
SPCH 105	Public Speaking 1A	2
University General Education		
Elective		3
		<u>17</u>
Sophomore Fall Semester		
CET 241	Const. Methods & Estimating	2
CET 341 Mechanical Systems		3
CET 350	Site Construction	3
CET 410	Managerial & Engineering Econ.	3
CET 210 Problem Solving w/Comp. Apps.		2
University General Education		
Elective		3
		<u>16</u>
Sophomore Spring Semester		
CET 342	Electrical Systems	3
ENGL 302	Technical Writing	3
SPAN 110	Conversational Spanish	3
CET 211 Statics		3
CET 351	Const. Tech. & Detailing	3
		<u>15</u>
TOTAL HOURS REQUIRED: 64 hrs		

RATIONALE:

This change should increase enrollment and better prepare students for immediate entry in the workforce. The two classes that are being dropped are MATH 220 and MET 245. Comparing other degree programs, we notice a positive impact on enrollment with the deletion of calculus from the curriculum. Such a change is supported by our industry representatives and the advisory board in this matter. The removal of MET 245 coupled with the addition of CET 341 and CET 342 will better prepare our ETA-CN students to make an immediate and positive impact in the workplace. We moved CET 410 to another semester to help even out the total number of credit hours. ETA 020 is currently only offered once a year in the fall semester.

IMPACT: The Department of Arts, Sciences, and Business has been notified of the removal of MATH 220 from the ETA-CN curriculum.

CONTACT: Danielle Roth
Phone: 785-826-2663. email:dmroth@sal.ksu.edu

EFFECTIVE DATE: Fall 2008.

CURRICULUM OPTION ADDITION:

ASSOCIATE OF TECHNOLOGY
in
ENGINEERING TECHNOLOGY
DIGITAL MEDIA OPTION (ETA-DM)
(proposed)

Freshman Fall Semester	hrs.
CMST 115 Graphics Software Applications	3
CMST 135 Web Page Development I	3
CMST 137 Fundamentals of Visual Literacy	3
MATH 100 College Algebra	3
ENGL 100 Expository Writing	3
ETA 020 Engineering Technology Seminar	<u>0</u>
	15
Freshman Spring Semester	
CMST 103 Introduction to Program Design	3
CMST 130 Introduction to PC Administration	3
CMST 216 Digital Media I	3
SPCH 105 Public Speaking 1A	2
COT 150 Humanities through the Arts	3
Business Elective	<u>3</u>
	17
Sophomore Fall Semester	
CMST 146 Digital Photography	3
CMST 306 Digital Media II	3
CMST 326 Page Layout & Type	3
ENGL 302 Technical Writing	3
Computer Systems Technology Elective	3
Humanities/Social Science Elective	<u>3</u>
	18
Sophomore Spring Semester	
Computer Systems Technology Elective	3
Computer Systems Technology Elective	3
CMST 250 Networking I	3
CMST 336 Digital Media Project	3
Science Elective/Lab	<u>4</u>
	16
TOTAL HOURS REQUIRED:	66

RATIONALE: These changes will result in a new Engineering Technology associate degree option in digital media. Surveys have been distributed to current and potential future students as well as potential employers to assess current and potential future demand. This is a growing industry as improvements and lower costs permit access to digital media technologies. The demand for workers with digital media communication skills spans a great number of industries including entertainment, sales and marketing, manufacturing, education, information services and technical communications.

IMPACT: Implementing this program will offer an alternative technology core to Technology Management majors. It will also offer computer technology electives to Computer Systems Technology majors.

CONTACT: Bill Genereux (826-2927 billgx@ksu.edu)

EFFECTIVE DATE: Fall 2008

Notification of K-State Units

We have made extensive efforts to contact various K-State units that may be impacted by a digital media degree option. The curriculum proposal has been shared with the following K-State faculty members outside of the College of Technology and Aviation.

College of Arts and Sciences

Dr. Larry Rodgers, Associate Dean, College of Arts and Sciences
(785) 532-6900

A.Q. Miller School of Journalism & Mass Communications

Dr. Steve Smethers, Associate Professor (785) 532-5286
Dr. Thomas Gould, Professor (785) 532-3449
Dr. Bill Adams, Professor (785) 532-2398

Department of Art

Gerry Craig, Professor (785) 532-6605
Mervi Pakaste, Assistant Professor (785) 532-6605
Jeff Smith, Assistant Professor (785) 532-6605

Computing and Information Science – College of Engineering

Dr. William H. Hsu, Associate Professor (785) 532-6350
Nathan Bean, Instructor (785) 532-6350

As of this writing, no concerns have been raised as a result of these communication efforts. Written replies are included in the following pages.

Engineering Technology – Digital Media Option
 Assessment of Student Learning Plan

College, Department, and Date

College: Technology and Aviation
 Department: Engineering Technology
 Date: October 22, 2007

Contact Person(s) for the Assessment Plans

Troy Harding, Associate Professor, CMST Program Coordinator

Degree Program

A.S. in Engineering Technology – Digital Media Technology Option (ETA-DM)

Assessment of Student Learning Three-Year Plan

Student Learning Outcome(s)

We have chosen to focus on the following three SLOs in the next three years:

<p><i>Digital Media Technology program graduates will demonstrate:</i></p> <p>A. Technical Skills and Knowledge. 4. The ability to build, operate and, maintain a web site or digital media project. (Technical Application)</p> <p>C. Communication. 1. The ability to write clear and effective technical documents and reports. (Written Communication)</p> <p>D. Professional Behavior in a Diverse World. The ability to work effectively on teams. (Teamwork)</p>
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Special rationale for selecting these learning outcomes:

C.1. Written Communication.

- A writing center has been established in the College of Technology and Aviation. We would like to partner with our Writing Center colleagues to learn how to better assess student writing skills and how we can best help our students in this area.

D.2. Teamwork.

- Other options within our department are also evaluating teamwork skills.

Relationship to K-State Student Learning Outcomes:

Program SLOs	University-wide SLOs (<u>Undergraduate Programs</u>)					Other
	Knowledge	Critical Thinking	Communication	Diversity	Academic / Professional Integrity	
A.4. Technical Application	X					
C.1. Written Communication			X			
D.2. Teamwork				X		

2. How will the learning outcomes be assessed? What groups will be included in the assessment?

Learning Outcomes	Measures			Who will be assessed?
	Direct	Indirect	Not sure	
A.4. Technical Application	CMST 336 – Digital Media Project (Capstone course) [Rubrics will be developed to evaluate students' final class projects.]			All students enrolled in the course
		Feedback from graduate and internship employers [Questionnaire or other tool to be developed.]		Students recently employed and students who participate in internships
		Graduate survey		Students graduating at the end of the semester
	Evaluation of final class projects in CMST 306 Digital Media II and CMST 326 Page Layout & Type [Rubrics will be developed.]			Students enrolled in these courses
C.1. Written Communication	Critical evaluation of the project development documents in CMST 336 – Digital Media Project (Capstone course) [Rubric will be developed in coordination with Writing Center faculty]			All students enrolled in the course
		Feedback from graduate and internship employers [Questionnaire or other tool to be developed.]		Students recently employed and students who participate in internships
		Graduate survey		Students graduating at the end of the semester
	Selected course assignment assessment from ENGL 302 Technical Writing [Rubric]			Digital Media students enrolled in course
D.2. Teamwork	Peer evaluation of team participation and effectiveness in CMST 336 – Digital Media Project (Capstone course) [A tool is in place but may need to be refined.]	CMST 336 student's self-report of team skills [rubric or survey]		All students enrolled in the course
	Faculty evaluation of team participation and effectiveness in CMST 336 [Rubric]			All students enrolled in the course
		Survey of employers on graduates' ability to work in teams		Students recently employed

3. When will these outcomes be assessed? When and in what format will the results of the assessment be discussed?

Learning Outcomes	Timetable for Assessment Learning Outcomes			Discussion of Results
	2008	2009	2010	
A.4. Technical Application	Fall – develop rubric for evaluating projects.		Spring sophomore capstone – CMST 336 project	<p>Meeting of program faculty; At the end of each semester the information will be combined and documented. The primary instructors in the curriculum will conduct an informal discussion at the end of each semester.</p> <p><i>At the beginning of the spring semester, a formal evaluation of the student learning outcomes will be conducted. This evaluation will be conducted by the curriculum primary instructors.</i></p> <p>Annual industrial advisory board meeting; results to be shared with industry representatives and program faculty in attendance. Reaction and suggestions of board members will be noted and considered toward improvement efforts.</p>
		Fall - Final Projects for CMST 306 and 326	Fall - Final Projects for CMST 306 and 321	
			Feedback from employers of graduates [Fall survey]	
			Survey each student applying for graduation at end of semester	
C.1. Written Communication	Fall - develop rubric for evaluating writing		Spring sophomore capstone – CMST 336 project report	<p>(See above for more detail.)</p> <p>Meeting of program faculty; English faculty will assist in assessment of writing.</p> <p>Annual industrial advisory board meeting</p>
		Spring/Fall - Assignments from ENGL302	Spring/Fall - Assignments from ENGL302	
			Feedback from employers of graduates [Fall survey]	
			Survey each student applying for graduation at end of semester	
D.2. Teamwork	Fall – refine rubric for evaluating teamwork in digital media	Test and refine rubric in CMST 306 and 326	Spring sophomore capstone – CMST 336 Peer and Self Evaluation	<p>(See above for more detail.)</p> <p>Meeting of program faculty</p> <p>Annual industrial advisory board meeting</p>
			Spring sophomore capstone – CMST 336 Teamwork evaluation by instructor	
			Feedback from employers of graduates [Fall survey]	

4. What is the unit's process for using assessment results to improve student learning?

<i>Learning Outcomes</i>	<i>Improvement plan</i>
A.4. Technical Application	Based on the program faculty meetings and advisory board feedback, faculty will recommend changes to the respective classes and curriculum. It is anticipated that the first two years will be used to help establish a baseline and test the assessment process and tools. Strengths and weaknesses will be acknowledged and shared with students, colleagues and advisory board members. In addition, these groups will be made aware of how the weaknesses are being addressed. Students will be made aware through revised syllabi and verbal communication during classes. Information will be shared with faculty and administrators during faculty meetings and annual assessment reports.
C.1. Written Communication	<p>The CMST faculty will work closely with the faculty of the K-State at Salina Writing Center. The Writing Center and English faculty will assist in the development of rubrics and the evaluation of writing. Based on the spring meetings and advisory board feedback, faculty will recommend changes to the respective classes and curriculum. Many other programs within the college will be formally assessing written communication as well. It is anticipated the Writing Center will help develop and coordinate improvement strategies.</p> <p>The first year will be used to help establish a baseline and test the assessment process and tools. Strengths and weaknesses will be acknowledged and shared with students, colleagues and advisory board members. In addition, these groups will be made aware of how the weaknesses are being addressed. Students will be made aware through revised syllabi and verbal communication during classes. Information will be shared with faculty and administrators during faculty meetings and annual assessment reports.</p>
D.2. Teamwork	<p>Although the teamwork measures will mostly occur during the capstone course, it is recognized that teamwork skills need to be emphasized throughout the curriculum. Instructors will utilize a variety of approaches throughout their classes to prepare students for the capstone course and beyond. Based on the results and feedback, program faculty will recommend changes.</p> <p>It is anticipated that the first two years will be used to help establish a baseline and test the assessment process and tools. Strengths and weaknesses will be acknowledged and shared with students, colleagues and advisory board members. In addition, these groups will be made aware of how the weaknesses are being addressed. Students will be made aware through revised syllabi and verbal communication during classes. Information will be shared with faculty and administrators during faculty meetings and annual assessment reports.</p>