TO: Faculty Senate

FROM: Mark Jackson, Chair, University Curriculum Committee

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Date: 5/6/2013

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On May 1, the Curriculum Committee met and approved the following items. On behalf of the Curriculum Committee, I submit these items for the approval of the Faculty Senate at its meeting on Monday, May 6, 2013.

ART		
1.1	Course Revision ART 362 Sculpture III	
	Change number to ART 462 and add GR credit	
	Add 'or permission of department chair" to prereqs	
Biolo	ду	
2.1	Program Revision Minor in Science	
	Change Chem 163/164 to (200 or 260) plus 201	
Chen	nistry	
3.1	Program Revision Major in Chemistry, B.S. (Certifiable for secondary teaching)	
	Revise chem courses	
	Add ESCI 121	
	Note: "Related Requirements" should be 22, not 26	

4.1	Course revision CET 201 Photonics Principles	
	Exploration of light, the laws of reflection and refraction and how they apply to several devices. Examination of wavelike behavior of light. An overview of fiber optics and optical image is presented. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.2	Course revision CET 223 Basic Electrical Circuits	
	Operation of DC circuits including voltage, current, resistance, power, electromagnetism, capacitance, inductance, and basic theorems. Laboratory experiments involve building circuits and using instruments to measure quantities. Two hours lecture and three hours laboratory, course meets five hours per week. No credit given to those with credit for CET 236.	
4.3	Course revision CET 229 Computer Hardware Architecture	
	Laboratory based course emphasizing the computer architecture and related components. Analyzing and troubleshooting the interrelationships between the operating system, computer hardware, and peripheral devices. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.4	Course revision CET 233 Advanced Electrical Circuits	
	Reactance and power concepts in AC. Phasor analysis of RC, RL and RCL circuits, resonance, and filters. Laboratory experiments involve building circuits, using instruments to measure quantities, and observing phenomena. Two hours lecture and three hours laboratory, course meets five hours per week. No credit given to those with credit for CET 236.	
4.5	Course revision <u>CET 236 Circuit Analysis</u>	
	Basic concepts and laws, methods of analysis and circuit theorems in DC and AC circuits. Topics include voltage, current, power, resistance, capacitance, inductance, node analysis, mesh, analysis, Thevenin's theorem, Norton's theorem, phasors, transfer functions, steady state and transient analysis. Laboratory experiments involve building circuits, using instruments to measure quantities and observe phenomena. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.6	Course revision CET 243 Analog Electronics I	

4.11	Course revision CET 363 Digital Circuits	
4.10	Course revision CET 346 Signals & Systems  3 credits, not 4  Signal representation, applications of Fourier series, Fourier transform, Laplace transform, and Z-transform in the analysis of circuits and systems.  Two hours lecture and three hours laboratory, course meets five hours per week.	
4.9	Course revision CET 339 Computer System Administration  Laboratory course emphasizing concepts, tools, and application of technologies related to computer system administration. Includes the design, implementation, management, and maintenance of a state-of-the-art network operating system. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.8	Course revision CET 323 Analog Electronics II  Discrete and linear integrated circuits and their applications. Topics include multistage and power amplifiers, operational amplifiers, oscillators, voltage and current regulators, passive and active filters. Analysis, synthesis, and laboratory experiments emphasize building circuits, simulation, troubleshooting, and using instruments to measure quantities and observe phenomena. Two hours lecture and three hours laboratory, class meets five hours per week.	
4.7	Course revision CET 301 Fiber-Optics Communications  Introduction to fiber-optic communication systems. Optical detectors and receivers. Coherent light wave systems. WDM communication systems and optical amplifiers. Two hours lecture and three hours laboratory, course meets five hours per week.	
	Semiconductor and p-n junction theory. Structure, parameters, performance characteristics of diodes, bipolar and field effect transistors, operational amplifiers and special semiconductor devices. Basic circuit analysis, synthesis, and laboratory experiments emphasize building circuits, troubleshooting, and using instruments to measure quantities, and observe phenomena. Two hours lecture and three hours laboratory per week.	

	Principles and applications of digital circuits, number systems, Boolean Algebra, combinatorial and sequential logic circuits, arithmetic circuits, and MSI logic circuits. Laboratory experiments focus on circuit building and troubleshooting using TTL integrated circuits. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.12	Course revision CET 405 Applied Topics in Computer Electronics Technology	
	A laboratory oriented course providing comprehensive study of a selected technological topic. May be used as an elective on a graduate student's planned program of study with the permission of the program advisor. Course may be repeated for a maximum of 6 credits for different topics. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.13	Course revision CET 453 Microcomputers	
	Microcontroller architecture including basic memory design, address decoding and internal register structure, and assembly language programming including addressing modes and instruction set. Laboratory work consists of programming and interfacing experiments. Projects focus on solving real world problems following a standard development process. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.14	Course revision CET 443 Electronic Communications	
	Radio Frequency transmitting and receiving circuits, modulation and detection techniques, noise in circuits and systems, transmission lines, antennas analog and digital communications. Analysis and synthesis laboratory experiments emphasize building circuits, troubleshooting, and using instruments to measure quantities and observe phenomena. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.15	Course revision CET 449 Advanced Networking	
	Note: this is a 3 credit course, not 4	
	Major emphasis on switching and STP, VLANs and InterVLAN routing. Basic Wireless concepts and configuration. In-depth focus on WAN technology, theory and design including serial communication, HDLC, PPP, Frame Relay. Secure router management and ACL creation. Lab includes hands-on switching and routing configuration and troubleshooting Layer 2 and Layer 3 networking equipment and software. Two hours lecture and three	

	hours laboratory, course meets five hours per week.	
4.16	Course revision CET 466 Logic Design  Prereq: CET 363. Use of hardware design languages to implement digital design, including modular combinational circuits, flip-flops, latches, counter and synchronous sequential circuits in programmable devices such as FPGA. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.17	Course Addition CET 463 Advanced Microcomputers	
4.18	Course revision GRT 212 Graphic Arts Processes  Skill Area IV A course designed to provide the student with a basic working knowledge of the printing industry. Printing, duplicating, and copying processes are included. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.19	Course revision GRT 232 Introduction to 3D Animation Technology  Prereqs: GRT 112 and CS 110; or permission of instructor  Wire frame modeling applications will be introduced. Topics include the creation of basic geometric shapes; editing the model structure; animating and rendering the animation. Two hours lecture and two hours laboratory, course meets four hours per week.	
4.20	Course revision GRT 342 Screen & Specialty Printing Manufacturing  Application and techniques for screen and specialty printing on a variety of substrates. Issues and processes control concerns related to the image transfer methods. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.21	Course revision GRT 352 Color Management & Analysis  Scientific study of color, perception and measurement principles, protocol for tolerances and targeting, and quality control practices of graphic color systems. Emphasis on the connection of color science to the graphic industry and state-of the art measurement equipment and software. Students will deploy color profiling, color management, color targeting and tolerance	

	development to industry relevant applications. Two hour lecture and three hour laboratory, course meets five hours per week.	
4.22	Course revision GRT 405 Applied Topics in Graphics Technology  A laboratory oriented course providing comprehensive study of a selected technological topic. May be used as an elective on a graduate student's planned program of study with the permission of the program advisor. Course may be repeated for a maximum of 6 credits for different topics. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.23	Course deletion GRT 411 Instructional Methods in Animation Graphics	
4.24	Course deletion GRT 412 Instructional Methods in Computer-Aided Publishing	
4.25	Course revision GRT 442 Print Production  GRT 212 or permission of instructor  Applied study of pre-production, production, and post-production in the printing industry. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.26	Course revision GRT 462 Advanced Graphic Arts Techniques  GRT 442 or permission of instructor  Integrated experience of advanced instruction in both flexo, offset and digital printing. Experiences will include advanced color work and direct to press operations. Cultural and historical aspects of graphic arts and industrial visitations. Two hours lecture and three hours laboratory, course meets five hours per week.	
4.27	Course revision GRT 472 Digital & Film Photography  Principles of conventional and digital camera techniques. Includes camera handling, exposure, composition, developing, printing, and editing.  Darkroom plans and equipment listings will be evaluated. Student must provide 35mm digital camera. Field trips to selected photography studios. Two hours lecture and three hours laboratory, course meets five hours per	

	week.	
4.28	Program revision Major in Electronics Technology, BS (122 credits)  Directed electives should be 14, not 12	
4.29	Program revision Major in Computer Engineering Technology, BS (124 credits)	
	As approved with following corrections:	
	Replace ET 241 with ET 251 Applied Mechanics I-statics 3	
	Replace ET 399 with ET 357 Strength of Materials 3	
	Remove the "I" from the title of general Chemistry	
	Directed electives should be 8, not 7	

## **Counseling and Family Therapy**

# **5.1** Program Revision PROFESSIONAL AND REHABILITATION COUNSELING

Change program title: Professional Counseling

Delete Rehabilitation from Rationale, and Learning Outcomes

Add "CNSL 505 Counseling and Human Development Across the Lifespan 3 or PSY 512 Developmental Psychology 3" to core

Deletion of words that start...."The curriculum and end with credentials as..." Correct wording is ...."becoming a licensed Professional Counselor (LPC) and Licensed Alcohol and Drug Counselors (LADC).

Students in the Mental Health track are required to take an additional 24 credits to equal 63 credits

Students in the Rehabilitation Counseling track are required to take an additional 21 credits to equal 60-63 credits

Students in the Drug and Alcohol Recovery Counseling track are required to take an additional 21 credits to equal 60-63 credits

	Add asterisk and language for those electing CNSL 599 Thesis 3*	
	"Students in Mental Health Track electing to do a thesis (Plan A) will be exempt from one core requirement course as determined with the advisor"	
	Note: All students are now at 60-63 credits.	
Crimin	nology and Criminal Justice	
6.1	Course Revision CRM 245 Diversity and Criminal Justice	
	Add "d-designation" for Reginald Simmons	
Educa	tional Leadership	
7.1	Course Deletion EDL 551 Curriculum Leadership	
7.2	Course Deletion EDL 513 Supervision	
7.3	Course Addition ED 520 Instructional Programs for Diverse Learners	
	Note: should this be ED and not EDL	
7.4	Course Addition EDL 524 Leadership and the Dynamics of Organizational Change	
7.5	Course Addition EDL 523 Collaboration, Coaching, and Instructional Leadership	
	Proposed prereq: Admission to the M.S. Educational Leadership or permission of the department chair	
7.6	Course Addition ED 591 Curriculum, Instruction, and Assessment I	

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	Note: should that be the letter "I", not the number "1" in the title	
	Prereqs: ED 598, EDT 540, EDL 555, ED 523	
	Principles of standards-based elementary and secondary curriculum development, implementation, and curricular evaluation Part I. Development of formative and summative evaluations to monitor student progress. Capstone Project: Action Research. Plan E	
7.7	Course Addition ED 592 Curriculum, Instruction, and Assessment II	
	Prereqs: ED 598, ED 591	
	Principles of standards-based elementary and secondary curriculum development, implementation, and curricular evaluation Part 2.  Development of formative and summative evaluations to monitor student progress. Capstone Project: Action Research. Plan E	
7.8	Course Addition EDT 540 Instructional Design & Technology for Educators	
	Proposed prereq: Admission to the M.S. Educational Leadership or permission of the department chair	
	Guided exploration of the systematic instructional design (ID) process and construction of ID projects typically found in school environments	
7.9	Course Addition ED 515 Professional Ethics and Law for Teachers	
7.10	Course revision EDL 590 leaders as Learners: Educational leadership and Self-Assessment	
	Prereq.: Admission to the Sixth Year Certificate program or permission of department chair.	
	Self-assessment of leadership. Discussion of self-awareness as the cornerstone of effective leadership. Exploration of State and national standards, learning and leading styles, the impact of cultural and experiential background, and values and beliefs concerning educational leadership. Spring, Summer. [GR]	
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7.11	Course revision EDL 605 Leadership in Teaching and Learning I	
	Change preqs to: Admission to the Sixth-Year Certificate program and EDL 590	
7.12	Course revision EDL 610 School Leadership I	
	Change preqs to: Admission to the Sixth-Year Certificate program and EDL 590	
7.13	Course revision EDL 615 Understanding External Environments of School	
	Change preqs to: Admission to the Sixth-Year Certificate program and EDL 590	
7.14	Program Revision MASTER OF SCIENCE IN EDUCATIONAL LEADERSHIP	
	The following changes are being made only to the PROPOSED DESCRIPTION SECTION  Core Requirements: 18 Credits	
	ED 598 Research in Education EDT 540 Instructional Design, Assessment, and Data Management	
	EDL 555 Leadership for Social Justice EDF 500, 516, 524, 525, 538, 583, <b>OR</b> ED 515 Professional Ethics and Law for	
	Teachers	
	ED 520 Instructional Programs for Diverse Learners EDL 523 Collaboration, Coaching, and Instructional Leadership	
	Electives (6-12 Credits) Select from EDL 524 Leadership and Dynamic of Organizational Change, ED 517 Evaluation or others as approved by advisor.	
	Capstone: Plane E Action Research Project in ED 591 Curriculum, Instruction, and Assessment 1, ED 592 Curriculum, Instruction, and Assessment II OR Plan B Comprehensive Exam and additional 3 credit elective.	
Engine	Perina	<u> </u>

8.1	Course Revision CE 471 Reinforced Concrete Design	
	CE 301 (C- or higher), ENGR 357 (C- or higher), and CE 397 (May be taken concurrently)	
8.2	Course Revision CE 497 CE Professional Practice and Senior Project Research	
	CE 253 (C- or higher), CE 301 (C- or higher), CE 375 (C- or higher), CE 407 (May be taken concurrently), CE 451(C- or higher), CE 454 (May be taken concurrently), and CE Senior standing.	
	First of a two course design sequence. Students work in teams in an environment appropriate to a professional engineering setting. Teams propose and begin development of a capstone design project. Class presentations include communication, engineering project management, the design function, ethics, professional liability and qualifications based selection. Oral and written communication skills are emphasized. One hour lecture and two hours laboratory per week.	
8.3	Course Addition CE 222 CAD Applications in Civil Engineering	
8.4	Course Addition CE 301 CE Fundamental Computations  ENGR 240, ENGR 251, ME 258, CE 253 (May be taken concurrently), and ENGR 357 (May be taken concurrently).	
8.5	Course Revision CE 397 Structural Analysis  Change title to: Structural Analysis I  MATH 221 (C- or higher), ENGR 357 (C- or higher) and CE 301 (May be taken concurrently).  Analysis of statically determinate structures; moving loads and influence lines for determinate structures; deflection analysis of trusses, beams and frames; evaluation of cables and arches; application of dead, live, wind, and earthquake loads and load combinations for design of structures.	

8.6	Course Addition CE 402 Inquiry and Research in Civil Engineering	
8.7	Course Addition CE 407 Structural Analysis II  Prereqs: CE 301 (C- or higher), and CE 397 (C- or higher).	
8.8	Course Revision CE 451 Soil Mechanics & Foundations  Change title to: Soil Mechanics  Change credits from 4 to 3  ENGR 357 (C- or higher), and CE 301 (May be taken concurrently).  Fundamentals of the physical and mechanical properties of soils. Application of solid mechanics and fluid mechanics to describe strength, permeability and consolidation. Evaluation of earth slope stability. Laboratory measurement of soil properties. Two hours lecture and three hours laboratory per week.	
8.9	Course Addition CE 452 Foundation Engineering	
8.10	Course Revision CE 454 Introduction to Transportation Engineering  Prereqs: CE 253 (May be taken concurrently) and Math 226 (may be taken concurrently).  Engineering for the planning, design, construction and maintenance of surface transportation projects. Driver and vehicle characteristics, highway geometric design, intersection design and control, traffic flow and capacity, safety, and travel forecast modeling. Two hours of lecture and two hours lab per week.  Cycling: Fall	
8.11	Course Revision CE 458 GPS Mapping for GIS  Change title to: Introduction to GPS for Engineering	

	CE 253 or GEO	OG 378 or permission of instructor		
	An exploration global framewo and field opera field use of GP	of Geodesy and world coordinate systems, Cork, code and carrier wave based GPS equipations for GIS mapping and cm level position S equipment and lab processing of GPS data hours lecture and two hours lab per week.	nent, GPS errors, ing. Hands on	
8.12	Course Revi	sion ME 485 Introduction to Combustion		
	Change title to	: Combustion		
8.13	Course Addi	tion ME 487 Flight Dynamics		
8.14	Course Addi	tion ME 488 Aerospace Vehicle Design		
8.15	Program Rev	vision Civil Engineering		
	General Education	Requirements (40-49 credits)		
	Study Area I: A	Arts & Humanities		
	Olday Alloa II. 7	Literature	3	
		Philosophy or fine arts	3	
		Literature, philosophy or fine arts	3	
	Study Area II:	Social Sciences		
		History	3	
		Economics	3	
	or			
	ET 399	Engineering Economy	3	
	Study Area III:	Behavioral Sciences		
		Anthropology, Psychology, or Sociology	3	
	Study Area IV:	Natural Sciences		
	PHYS 125	University Physics I	4	
	PHYS 126	University Physics II	4	
	Skill Area I: Co	ommunication Skills		
	ENG 110*	Freshman Composition	3	
	ENGR 290	Engineering Technical Writing and Presentation	3	

	Skill Area II: Mat	hematics		
	MATH 152*	Calculus I		4
	MATH 221	Calculus II		4
	Skill Area III: For	reign Language Proficiency		0-6
	Skill Area IV: Un	iversity Requirement		2-3
	PE 144	Fitness/Wellness Ventures		
	or for transfer stu	udents		
	ENGR 150	Introduction to Engineering		
* A	placement exam ı	may be required before enrolling in English or Ma	athematics	courses.
Ma	ijor Requirements	(53 credits, 50 for transfer students taking ENGR	150 as S	kill Area IV)
	ENGR 150	Introduction to Engineering	3	
	ENGR 251	Engineering Mechanics I - Statics	3	
	ENGR 252	Engineering Mechanics II - Dynamics	3	
	ENGR 357	Mechanics of Materials	3	
	ME 258	Engineering Thermodynamics	3	
	ME 354	Fluid Mechanics	3	
	CE 253 CE 301	Intro to Engineering Surveying CE Fundamental Computations	3 <b>1</b>	
	CE 357	Advanced Surveying	3	
	or			
	CE 458	Intro GPS for Engr.	3	
	CE 357	Hydraulic Engineering	3	
	CE 397 CE 407	Structural Analysis I Structural Analysis II	3 <b>3</b>	
	CE 451 CE 452	Soil Mechanics & Foundations /w Lab. Foundation Engineering	3 2	
	CE 454	Intro. to transportation Engineering	3	
	CE 470	Structural Steel Design	3	

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Reinforced Concrete Structures

Hydrology and Storm Drainage

Prof. Practice & Sr. Project Research

Senior Design Project - Capstone\*\*

**Environmental Engineering** 

Additional Requirements (34 or 35 credits)

CE 471

CE 475

CE 476

CE 497

CE498

 $<sup>^{\</sup>star\star}$  Completion of CE 498 requires that students register to take the NCEES Fundamentals of Engineering (FE) Exam.

	CET 236	Circuit Analysis	3
	CHEM 161	General Chemistry	3
	CHEM 162	General Chemistry I Laboratory	1
	ETM 356	Materials Analysis or (CM 356)	3
	ENGR 240	Spreadsheet & Engr. Prob. Solving Tools	3
	ETC 122 CE 222	Intro. to CAD for AEC 1 CAD App in CE (or ETC 122)	3 2
	MATH 226	Linear Algebra and Probability for Engineers	4
	MATH 355	Introduction to Differential Equations with Applications	4
	BIO or BMS or	Additional Science Elective w/ Lab.	4
	ESCI	BIO 121 or BMS 102/103 or ESCI 121 &125)	
		Directed Technical Elective	3
		CE Directed Technical Electives	6
		E Directed Technical Electives (6 credits) include: CE 47 NGR 490, ETM 467, and MATH 222, or course approval neering Chair)	
9.1	Course Addition	1 <u>HIST 298 History and Travel</u>	
9.2	Course Revision	n HIST 501 The Professional Historian	
	Prereqs: Acceptance into the MA program in history or public history, and permission of department chair  Focus on major professional trends in history at both the academic and public history level, with a special focus on writing, research, and analysis of historical arguments and theories. This is a mandatory course for all MA History and MA Public History graduate students and should be taken within the first year of acceptance to these programs		
9.3	Change to 3 credit		
	past, and cultivates	s to debates among historians about how to write the skills necessary to understand historiograph mandatory course for all MA History and MA	phical

	History graduate students and should be taken within the first year of acceptance to these programs	
9.4	Course Addition: HIST 530 Seminar in Ancient History	
	Amended:	
	(approved by AS & GR) Change prereqs to :Admission to the M.A. Program in History or Public History or permission of department chair	
	Prerequisite or corequisite: History 501 or 502 or permission of department chair or M.A. coordinator.	
9.5	Course Revision HIST 540 Seminar in European History	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator	
9.6	Course Revision HIST 545 History of South Africa since 1900	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator	
9.7	Course Revision HIST 560 Seminar in American History	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator.	
9.8	Course Revision HIST 563 The Age of Jackson	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator.	
9.9	Course Revision HIST 565 Seminar in 17th- and 18th-Century America	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator.	

9.16	Program Revision MASTER OF ARTS IN HISTORY	
	Add: HIST 591: Topicsmust be taken twice with different topics.	
	Add headers: CORE (18 cr.), ELECTIVES (6 cr.), CAPSTONE PROJECT: Plan C (3 cr.)	
	Amendments:	
9.15	Program Revision MASTER OF ARTS IN PUBLIC HISTORY	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator	
9.14	Course Revision HIST 585 Modern World History	
9.13	Course Revision HIST 583 Seminar in Latin American History  Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator.	
9.12	Course Revision HIST 580 Seminar in Non-Western History	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator	
9.11	Course Revision HIST 571 History of Sex, Gender, and Health in Modern	
	Prerequisite or corequisite: History 501 or 502 or permission of the department chair or M.A coordinator	
9.10	Course Revision HIST 566 Civil War and Reconstruction in the United States	

Amendments:

Add header: CORE (18 cr.) at 500 level

Add Header: Electives

Add: No more than 6 credits at the 400 level

Add header: Capstone

Change: program advisor to M.A. coordinator

#### **Journalism**

## **10.1** Program Revision Minor in Journalism

Add JRN 340 Introduction to Broadcast News Add JRN440 TV News Practicum

Remove Comm 330 from directed electives and Replace with "COMM 227 Introduction to Television Production 3"

# **10.2** Program Addition Major in Journalism

Note: Only the relevant section is being shown below:

#### Current:

Broadcast Sequence 18 credits

a. Required

JRN 340 Introduction to Broadcast News

COMM 330 Digital Film and Television Production

COMM 427 Digital Film and Television Production II

COMM 230 Introduction to Mass Media

Or

COMM 255 Visual Communication

#### Change to:

Broadcast Sequence 18 credits

a. Required

COMM 227 Introduction to Television Production 3

JRN 340 Introduction to Broadcast News 3 JRN 440 TV News Practicum 3 and Either COMM 230 Introduction to Mass Media 3 Or COMM 255 Visual Communication 3

## **Manufacturing and Construction Management**

### 11.1 Course Revision CM 500 Fundamentals of Construction Management

Introduces fundamental aspects of construction management to students without formal construction management backgrounds. Emphasis on creating familiarity with all aspects of construction projects. Topics covered include planning, scheduling, estimating, organizational forms, contracts and risk management. Will be used for conditional admission for students without appropriate background. Credit for this course may not be applied to the MS CM program.

## 11.2 Course Deletion EMEC 114 Introduction to Energy Processing

### 11.3 Course Revision MFG 118 Introduction to Materials

Technical principles and concepts of material structure, properties, and testing methods for the major material families (metals, polymers, ceramics and composites) as it relates to material selection and processing decisions.

# 11.4 Program Revision Major in Construction Management BS

(75 credits), not 78

Under core requirements: CM 485 is now Construction Management Senior Lab

Replace COMM 140 by ENGR 290

Change CM 255 to CM 475

Change ETC 405 to CM 425

Remove ENG 403

	Remove PHIL 240 from study area I	
	Add "or ESCI 121/125" to Study Area IV	
	Add Math 119 to list of courses for Skill Area II	
11.5	Program Revision Major in Industrial Technology, BS (63 credits)	
11.6	Program Addition BS Manufacturing Management	
	BS – Manufacturing Management (NEW) Major Requirements (45 credits)  CET 113Intro to Info Processing TM 120 Intro to Technology Mgt TM 121 Mechanical CAD TM 190 Global Quality Mgmt Systems MM 216 Manufacturing Processes AC 210 Industrial Accounting MGT 295Fundamentals of Management MKT 295Fundamentals of Marketing TM 310 EH&S MM 360 Production Systems TM 362 Leading Project Teams MM 366 Supply Chain and Purchasing Strategies TM 401 Senior Seminar and Internship TM 464 Six Sigma Quality MM 390 Lean Operations Management  Directed Electives (w/advisor) (12 credits) Electives (12 credits) MM 226 Principles of CNC MM 236 Tool Design MM 324 Fluid Power TM 480 Robotics or CM 335Construction Safety TM 411 Industrial Hygiene TM 414 Accident Investigation TM 456 Hazardous Material Management  General Education Study Area I - Arts and Humanities (9) Literature 3	

	2	
	Study Area II - Social Sciences (9)	
	ECON 201 3	
	Historical 3	
	3	
	Study Area III - Behavioral Sciences (6)	
	PSY 112 ** 3	
	3	
	3	
	Study Area IV - Natural Scientific (6)	
	PHYS 111 w/lab3	
	CHEM 161/162 w/lab 3	
	Skill Area I - Communication Skills (6)	
	ENG 110* 3	
	ENGR 290 3	
	Skill Area II - Mathematical (6)	
	STAT 104 * 3	
	Math 115 3	
	Skill Area III Foreign Language	
	Skill Alea III i Oleigii Language	
	Skill Area IV Univ Requirement 2-3	
Moder	n Language	
12.1	Program Revision Minor in Modern Language	
	1-1-0g	
	SPAN 125 Intermediate Spanish I 3	
	SPAN 125 Intermediate Spanish I 3	
	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3	
	SPAN 125 Intermediate Spanish I 3	
	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3	
Music	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3	
	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3	
Music	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6	
	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12	
Music	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6	
Music	SPAN 125 Intermediate Spanish II 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12 teaching)	
Music	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12	
Music 13.1	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12 teaching) Remove Phys 113 Sound of Music for required Gen Ed courses.	
Music 13.1	SPAN 125 Intermediate Spanish II 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12 teaching)	
Music 13.1	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12 teaching) Remove Phys 113 Sound of Music for required Gen Ed courses.	
Music 13.1 Physic	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12 teaching) Remove Phys 113 Sound of Music for required Gen Ed courses.  Cal Ed and Human Performance	
Music 13.1	SPAN 125 Intermediate Spanish I 3 SPAN 126 Intermediate Spanish II 3 or Span 128 Intensive Intermediate Spanish 6  Program Revision Major in Music Education, B.S. (Certifiable for PK 12 teaching) Remove Phys 113 Sound of Music for required Gen Ed courses.	

	Curricular Teaching	
14.2	Program Revision Major in Physical Education, B.S. Ed	
	As proposed except:	
	In skills section, Replace PE 220 with PE 223 Skills and Instructional Strategies for Cross-Curricular Teaching	
	In general Education section, Replace PE 150 with PE 144	
Physic	s and Earth Sciences	
15.1	Course Revision SCI 416 Educational Technology in Secondary Science	
	Removal of SCI 416 from the Teacher Preparation program for science majors	
	Irregular Cycling	
15.2	Course Revision SCI 417 Teaching of Science in the Secondary School	
	Increase the number credits from 3 to 4	
	Reduce the cycling of SCI 417 from every semester to every other semester (FALL)	
	Remove co-req of SCI 416	
	Add the following to description: "Thirty hours of content area major field experience is required for teacher candidates	
15.3	Course Revision SCI 419 Student Teaching Seminar	
	Change Cycling for SCI 419 from every semester to the spring semester	
15.4	Course Revision SCI 420 History and Nature of Science	
	Change prereqs to: Junior Standing or permission by instructor	
	Increase cycling from every other fall to every spring	
	Delete Grad credit	

15.5	Course Revision SCI 500 Science, Technology, and Society
	Change title to: SCI 500 STEM in Society
	Prereqs; Admission to Master's Program
	Inquiry into the nature and values of current science, technology, engineering, and math (STEM) issues and their implications for society.
15.6	Program Revision Major in Earth Sciences, B.S. (Certifiable for secondary teaching)
	1) Delete SCI 416 (1 credit) 2) Change SCI 417 from 3 to 4 credits 3) Correct title of 161/162 4) Delete CHEM 163/164 5) Add CHEM 260 and 201. 6) NOTE: THE EARTH SCIENCE COURSES REFLECT APPROVED CHANGES IN FALL 2012
15.7	Program Revision Minor in Astrobiology
	Change Bio 200 General Biology III to Bio 200 Integrative biology
	Change chem requirement to
	CHEM 210 Foundations of Organic Chemistry (3) CHEM 211 Foundations of Organic Chemistry lab (1) CHEM 212 Organic Synthesis (3)
	CHEM 213 Organic Organic Synthesis lab (1)
	In addition, students must take CHEM 161 General Chemistry, CHEM 162 General Chemistry Lab and CHEM 201 Foundations of Analytical Chemistry Lab, and either CHEM 200 Foundations of Analytical Chemistry or CHEM 260 Foundations of Inorganic Chemistry
15.8	Program Revision Minor in General Science (Certifiable for secondary teaching)
	Correct title of 161/162 2) Delete CHEM 163/164 3) Add CHEM 260 and 201.
15.9	Program Revision Minor in Physics (Certifiable for secondary teaching)
	1) Correct title of 161/162 2) Delete CHEM 163/164 3) Add CHEM 260 and

	201.	
15.10	Program Revision Major in Physics, B.S. (Certifiable for secondary teaching)	
	1) Delete SCI 416 (1 credit) 2) Change SCI 417 from 3 to 4 credits 3) Correct title of 161/162 4) Delete CHEM 163/164 5) Add CHEM 260 and 201. 6) Add SCI 420	
Specia	I Education	
16.1	Course Revision SPED 511 Behavioral/Emotional Disorders	
	Reduce credits from 3 to 2	
	SPED 315 or 501, admission to the School of Graduate Studies and admission to the Special Education program; or permission of the chair	
16.2	Course Revision SPED 512 Learning Disabilities	
	Reduce credits from 3 to 2	
16.3	Course Revision SPED 513 Developmental Disabilities	
	Reduce credits from 3 to 2	
	Examination of developmental disabilities including students with intellectual disabilities, pervasive developmental disorder, cerebral palsy, and other physical disabilities, with emphasis on current issues, classroom practices, and contemporary research (10 hours of off-campus field experience required).	
16.4	Course Revision SPED 517 Instructional Methods for Students with Special	
	Change title to: Special Education Methods in Teaching Reading (K-12)	
	Prereqs: RDG 503 or equivalent, SPED 515, 516	
	Methods in planning and implementing evidence-based reading instruction in K -12 settings for students with special needs (10 hours of off-campus	

	field experience required).	
16.5	Course Revision SPED 518 Instructional Methods for Students with Special	
	Change title to: Special Education Methods in Teaching Writing (K - 12)	
	RDG 503, SPED 515, 516  Methods in planning and implementing evidence-based writing instruction in K -12 settings for students with special needs (10 hours of off-campus field experience required).	
16.6	Course Revision SPED 519 Action Research in Special Education (Plan C)	
	Reduce credits from 3 to 2	
	Change title to: Special Education Methods in Content Area Instruction (K-12)	
	RDG 503 or equivalent, SPED 515, SPED 516, SPED 517, and SPED 518. May be taken concurrently with SPED 517 and SPED 518.	
	Methods in planning and implementing evidence-based content area instruction in K -12 settings for students with special needs (10 hours of off-campus field experience required).	
Teach	er Education and Special Education	
17.1	Course Addition EDEC 301 Child Development and Implications for Teaching and Learning in the Early Childhood Classroom	
	Add "45 hrs of Field Experience" to the description"	
17.2	Course Addition EDEC 302 Literacy for Early Childhood	

	Amendments:	
	Delete "This course" from first sentence of Proposed Prereqs.	
	Add "30 hrs of" to last sentence in Proposed Description to read"30 hrs of Field Experience required".	
17.3	Course Addition EDEC 303 Arts and Aesthetics in Early Childhood Education	
	Amendments:	
	for description of Proposed Prereqs, Delete "An" in first sentence.	
17.4	Course Addition EDEC 321 Curriculum and Instruction for English Language Learners	
	Amendments:	
	for description of Proposed Prereqs, Delete "This course is" in first sentence.	
17.5	Course Addition EDEC 401 Integrated Methods for Early Childhood:  Teaching and Learning of Mathematics and Science	
17.6	Course Addition EDEC 426 Integrated Curriculum for Early Childhood	
	Change number and title to EDEC 402 Child Development and Implications for Teaching in the Primary Classroom	
	Prereqs: Admission to the Professional Program In Early Childhood Education	
	Exploration of developmentally appropriate integrated models of curriculum, instruction and assessment strategies in alignment with appropriate standards to meet the needs of a diverse learning community serving children $6-8$ years of age. Reflection on practice in the place-based setting is required. 30 hrs of field experience is required.	
17.7	Course Revision EDEC 430 Early Childhood Student Teaching	
	9 credits	

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	Student teachers in elementary schools work with teachers and children in professional activities. They take on interesting obligations for planning, implementing, assessing and reflecting on units of instruction for a diverse population. They are also expected to demonstrate effective leadership skills. Full semester of supervised field-based work is required. Only the required concurrent courses may be taken during student teaching. CT law requires fingerprinting and a criminal background check for the field experiences in this class. Fingerprinting must be completed prior to the beginning of Student Teaching.	
17.8	Course Addition EDEC 431 Early Childhood Student Teaching Seminar	
17.9	Course Addition EDT 301 Instructional Technology in the Classroom I	
	Amendments t	
	Change Description to read: "Application of instructional design strategies and techniques using a range of technologies to develop effective lessons/instruction."	
17.10	Course Addition EDT 321 Instructional Technology in the Classroom II  Amendments	
	Change Description to read: (delete first sentence) "Apply instructional design strategies and techniques using a range of technologies to develop effective lessons/instruction. More" (continue paragraph as previously stated)	
17.11	Course Addition EDT 401 Instructional Technology in the Classroom III  Amendments	
	Change Description: delete from first sentence" This course will give students"	
17.12	Course Addition EDT 421 Instructional Technology in the Classroom IV	
	Amendments to Proposed Description:	
	first sentence to read: "Instructional design strategies and techniques	

	using a range of technologies" second sentence to read: "Integrates skills in the previous EDT courses and their field work in a discovery lab setting."				
17.13	Course Addition SPED 301 Assessment, Instruction & Curriculum Adaptations for Early Childhood				
	Amendment to Proposed Description.				
	Last sentence to read "10 hrs of Field Experience required".				
17.14	Course Addition SPED 321 Establishing the Classroom Environment for Early Childhood Programs				
	Amendment to Proposed Description to read:				
	"Establishing a positive classroom environment using the positive behavioral supports framework. 10 hours of Field Experience required."				
17.15	Program Revision B.S.E.D. EARLY CHILDHOOD EDUCATION				
Tech 8	Tech & Engineering Education				
18.1	Course Revision TE 215 Materials Processing				
	Concepts involved in the efficient processing of multiple materials.  Appropriate hand tools and equipment are employed to demonstrate the relationship between materials, properties and processes. Attention is given to procedures common to a variety of manufactured products. Two hours lecture and two hours laboratory, course meets four hours per week.				
18.2	Course Revision TE 217 Laboratory Practices				
	Change credit from 3 to 4 credits				
	TE 115 Laboratory practices designed to promote Science, Technology Engineering, and Math (STEM) activities and projects. Three hour lecture and two hours laboratory, course meets five hours per week.				
18.3	Course Revision TE 218 Electrical Applications for STEM				

	Study of electrical phenomena including energy conversion, transmission, and control applied to problem-based STEM learning experiences. Two hours lecture and two hours laboratory, course meets four hours per week.
18.4	Course Revision TE 221 Innovation & Invention
	Change credit from 3 to 4 credits
	Focus on activities that lead to innovation and invention, problem identification, research methods, prototype development and presentation of results. Three hours lecture and two hours laboratory, course meets five hours per week.
18.5	Course Revision TE 245 Building Design & Construction
	Change credit from 3 to 4 credits
	Means used to design and construct buildings. Investigation of building codes, site work, wood frame, masonry, concrete and steel frame design and construction techniques. A residential structure design project is required. Three hour lecture and two hours laboratory, course meets five hours per week.
18.6	Course Revision TE 310 Communication Systems 3 credits
	Prereqs: TE 115
	Application of graphic and electronic communication systems with focus on how the individualized components function together as a system. Research and lab activities include computer graphics, desktop publishing, video, and telecommunications. Two hours lecture and two hours laboratory, course meets four hours per week.
18.7	Course Revision TE 330 Transportation Design
	Change credit from 3 to 4 credits
	Application of the systems which extend the means of transportation beyond the physical capability of the human body. Includes terrestrial, atmospheric, marine, and space transportation technologies and their social, environmental, and economic impact. Three hour lecture and two hours

	laboratory, course meets five hours per week.
18.9	Course Revision TE 417 Robot Design & Construction
	Change credit from 3 to 4 credits
	Examines the use of robotics in education. Topics include robot applications in education, system development methodologies, project planning and scheduling, robot design and implementation, competitions, and educational resources. Three hour lecture and two hours laboratory, course meets five hours per week
18.10	Course Revision TE 498 Technology & Engineering Education Senior  Design Project
	TE 400, may be taken concurrently, and senior standing
	Team work or individual project of study, design and/or research a project related to technology education. Final reports submitted to the department for archiving. Oral presentations and electronic portfolio are required. Two hours lecture and two hours laboratory, course meets four hours per week.
18.11	Program Revision Major in Technology and Engineering Education (K-12), BS (130 credits)
	Remove the "or" from between PE 144 and Hist 161
Theatr	e
19.1	Course Revision: TH 111 Stagecraft
	Changing the credits from 0-3 to 3
19.1	Program revision Major in Theatre, B.F.A.
	Title should be Major in Theatre with Specialization in Performance, BA.

Move TH 347 Acting III 3 from guided electives to core course	es

# CURRICULUM COMMITTEE COMMENTS ON REPORT AND PROPOSAL FROM THE AD HOC COMMITTEE ON FOUR CREDIT COURSES

- The curriculum reviewed the Ad Hoc committee's proposal for a policy on 4- credit courses and would like to make the following recommendations.
  - (1) For item 1) of the proposed policy, the curriculum committee suggests that non-substantive changes in the size of programs could be allowed, following the procedures that are currently in place that require Dean's review of curriculum proposals and BOR approval of substantive changes.
  - (2) The curriculum committee expressed some concern about how 4-credit courses would fit into the current block schedule times, and the possible impact that this could have on the scheduling of other classes. We recommend that the current block schedule plan be reviewed and a plan put into place for how the schedule can be modified to accommodate 4-credit course. .
  - (3) The curriculum committee recommends that a seventh item be added to the policy to clarify how this policy will be used in conjunction with current policy. The suggested wording of the new item 7) to be:

"Nothing in this policy affects existing standards and guidelines for the assignment of credit in courses that include laboratory experiences in the fields of science, technology and engineering. Nothing in this policy affects existing standards and guidelines for the assignment of credit in courses that include non-science laboratory experiences or other similar experiences where there are established practices, "side letters" with Deans. "

The curriculum was in favor of items 2), 5), and 6) of the proposed policy. Policy Item 4) was not reviewed because our suggested changes to item 1) would necessary materially affect the content of item 4. It should be noted that due to the large number of other curriculum items that were on the agenda and the loss of a quorum because members had to depart to teach classes, we were not able to review the table of enhancements.