

MEMORANDUM

Faculty Senate Approved January 31, 2013

TO: Deans and Chairs
 FROM: Becky Bitter, Assistant Registrar
 DATE: January 22, 2013
 SUBJECT: Minor Change Bulletin No. 4

The courses listed below reflect the minor curricular changes approved by the catalog editor since approval of the last Minor Change Bulletin. The column to the far right indicates the date each change becomes effective.

Prefix	Course Number	New Revise Drop	Current	Proposed	Effective Date
CE	303	Revise	Civil Engineering Computer Applications 2 (1-3) Course Prerequisite: CST M 254; certified civil engineering major. Advanced civil engineering computer applications including Geographical Information Systems, CIVIL3D and Excel.	Civil Engineering Computer Applications 2 (1-3) Course Prerequisite: Certified civil engineering major. Advanced civil engineering computer applications including Geographical Information Systems, <u>Revit</u> , and Excel.	5-13
CE	403	Revise	Air Quality Management 3 Course Prerequisite: CE 402; CHEM 105 . Air pollution from the perspective of an environmental manager; regulatory framework, management strategies, monitoring, modeling tools, and control technologies. Offered at 400 and 500 level.	Air Quality Management 3 Air pollution from the perspective of an environmental manager; regulatory framework, management strategies, monitoring, modeling tools, and control technologies. Offered at 400 and 500 level.	5-13
CHE	527	Revise	Macroscopic Thermodynamics 3 Advanced thermodynamics from macroscopic viewpoint; basic postulates, equilibrium, stability, property relations; application to thermal fluid and solid mechanics; irreversible thermodynamics.	<u>Chemical Thermodynamics 3</u> <u>Thermodynamic laws for design and optimization of thermodynamic systems, equations of state, properties of ideal and real fluids and fluid mixtures, stability, phase equilibrium, chemical equilibrium; applications of thermodynamic principles.</u>	5-13

E_E	351	Revise	Distributed Parameter Systems 3 Course Prerequisite: E E 331 with a C or better; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Plane waves, waveguides, resonators, antennas, numerical methods.	Distributed Parameter Systems 3 Course Prerequisite: E E 331 with a C or better; certified major in Electrical Engineering, Computer Science, or Computer Engineering. <u>Maxwell's equations, plane waves, waveguides, resonators, antennas, numerical methods.</u>	8-13
E_E	431	Revise	RF and Microwave Circuits and Systems 4 (3-3) Course Prerequisite: E E 341 with a C or better; E E 351 with a C or better; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Design and implementation of RF/microwave modules and systems for telecommunications; microstrip, filters, mixers, amplifiers, frequency synthesizers and transceivers.	RF and Microwave Circuits and Systems 4 (3-3) Course Prerequisite: Certified major in Electrical Engineering, Computer Science, or Computer Engineering. Design and implementation of RF/microwave modules and systems for telecommunications; microstrip, filters, mixers, amplifiers, frequency synthesizers and transceivers.	1-14
E_E	496	Revise	Introduction to Semiconductor Device Theory 3 Course Prerequisite: E E 311 with a C or better or MSE 302 with a C or better; STAT 360 or 443 with a C or better; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Equilibrium statistics of electrons and holes; carrier dynamics; p-n junctions, metal-semiconductor junctions, BJTs, Mosfets, LEDs.	Semiconductor Devices 3 Course Prerequisite: Certified major in Electrical Engineering, Computer Science, Computer Engineering, Physics, Mechanical Engineering, or Material Science and Engineering. Equilibrium statistics of electrons and holes; carrier dynamics; p-n junctions, metal-semiconductor junctions, BJTs, Mosfets, <u>Solar Cells, and LEDs.</u>	8-13
ECONS	431	Revise	Economic Analysis of Environmental Policies 3 Course Prerequisite: ECONS 301; ECONS 311; ECONS 330. Nature and practice of environmental policy analysis using economics concepts and tools including benefit cost, social indicators and environmental accounts. Offered at 400 and 500 level.	Economic Analysis of Environmental Policies 3 Course Prerequisite: ECONS 301. Nature and practice of environmental policy analysis using economics concepts and tools including benefit cost, social indicators and environmental accounts. Offered at 400 and 500 level.	8-13
ENGLISH	105	Revise	[WRTG] [W] Composition for ESL Students 3 Course Prerequisite: Appropriate Writing	[WRTG] [W] Composition for ESL Students 3 Course Prerequisite: <u>Writing placement</u>	5-13

			Placement Exam score. Designed to develop academic writing, critical thinking, reading, library skills, and rhetorical strategies for non-native speakers of English. Credit not granted for more than one of ENGLISH 101 and 105.	<u>exam or C or better in ENGLISH 104. Designed to develop academic writing, critical thinking, reading, library skills, and rhetorical strategies for non-native speakers of English. Credit not granted for more than one of ENGLISH 101 and 105.</u>	
ENVR_SCI	285	Revise	Climate Change: Planning for a Sustainable Environment 3 Course Prerequisite: ENVR SCI 101. <u>Ideas and information necessary to integrate environmental viability and sustainable development with other concerns of environmental planning.</u>	<u>The Science and Policy of Climate Change</u> 3 Course Prerequisite: ENVR SCI 101. <u>The science of the climate system; the case for reducing greenhouse gas emissions, and the best policies to do so.</u>	5-13
ME	216	Revise	Integrated CAD Design 2 (0-6) Course Prerequisite: ME 116; CE 215 or concurrent enrollment. CAD based analysis for engineering design, the application of motion, FEA and CFD, CAD simulations to the engineering design process.	Integrated CAD Design 2 (0-6) Course Prerequisite: ME 116 <u>with a C or better</u> ; CE 215 or concurrent enrollment. CAD based analysis for engineering design, the application of motion, FEA and CFD, CAD simulations to the engineering design process.	8-13
ME	404	Revise	Heat Transfer 3 Course Prerequisite: ME 301; ME 303 or concurrent enrollment ; certified major in Mechanical Engineering, Materials Science Engineering, Civil Engineering, or Electrical Engineering. Conduction, radiation, and convection heat transfer; analytical, numerical, experimental results for solids, liquids, and gases; heat exchanger design. Cooperative course taught jointly by WSU and UI (ME 345).	Heat Transfer 3 Course Prerequisite: ME 301; ME 303; certified major in Mechanical Engineering, Materials Science Engineering, Civil Engineering, or Electrical Engineering. Conduction, radiation, and convection heat transfer; analytical, numerical, experimental results for solids, liquids, and gases; heat exchanger design. Cooperative course taught jointly by WSU and UI (ME 345).	8-13
SHS	570	Revise	Advanced Internship in Speech-Language Pathology V 1-18 May be repeated for credit. Course Prerequisite: SHS 566 or SHS 568; SHS 575; by interview only. Advanced practicum in diagnosis of and therapy for communication disorders. SHS graduate student; all undergraduate prerequisite	Advanced Internship in Speech-Language Pathology V 1-18 May be repeated for credit. Course Prerequisite: SHS 566 or SHS 568. Advanced practicum in diagnosis of and therapy for communication disorders. SHS graduate student; all undergraduate prerequisite courses completed. S, F grading.	8-13

			courses completed. S, F grading.		
TCH_LRN	301	Revise	Learning and Development 3 Course Prerequisite: PSYCH 105. Analysis of the connections among learning theories, human development theories, and educational practice in today's PK-12 classrooms.	Learning and Development 3 Analysis of the connections among learning theories, human development theories, and educational practice in today's PK-12 classrooms.	5-13