

## MEMORANDUM

TO: Deans and Chairs  
 FROM: Becky Bitter, Sr. Assistant Registrar  
 DATE: October 14, 2015  
 SUBJECT: Minor Change Bulletin No. 2

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.

Subject	Course Number	New Revise Drop	Current	Proposed	Effective Date
AMDT	210	Revise	<del>[SCI] Textile Specifications</del> 4 (3-3) Examination of basic textile components including fibers, yarns, structure, coloration, and finishes relative to performance standards and expectations for intended use. Typically offered Fall and Spring.	[SCI] <u>Textiles</u> 4 (3-3) Examination of basic textile components including fibers, yarns, structure, coloration, and finishes relative to performance standards and expectations for intended use. Typically offered Fall and Spring.	1-16
AMDT	413	Revise	<del>[CAPS] [M] International Trade in Textiles and Apparel</del> 3 Course Prerequisite: MKTG 360; certified major in Apparel, Merchandising, and Textiles; junior standing. Economic/social conditions influencing apparel trade and consumption; comparison of production, distribution, and consumption of apparel in the global economy. Typically offered Spring.	[CAPS] [M] <u>Global Sourcing</u> 3 Course Prerequisite: MKTG 360; certified major in Apparel, Merchandising, and Textiles; junior standing. Economic/social conditions influencing apparel trade and consumption; comparison of production, distribution, and consumption of apparel in the global economy. Typically offered Spring.	1-16
AMDT	480	Drop	<b>Special Topics: Study Abroad V</b> 1-15 May be repeated for credit. S, F grading.	--N/A--	1-16
CE / MSE	593 / 543	Revise	<b>Polymer Materials and Engineering</b> 3 Preparation and structure-property relationship of polymer materials with emphasis on fracture mechanics and toughening. (Crosslisted course offered as CE 593, MSE 543). Required preparation must include MSE 402.	<b>Polymer Materials and Engineering</b> 3 Preparation and structure-property relationship of polymer materials with emphasis on fracture mechanics and toughening. (Crosslisted course offered as CE 593, MSE 543). Required preparation must include MSE 402. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
CE /	594 /	Revise	<b>Natural Fibers</b> 3 Structural aspects	<b>Natural Fibers</b> 3 Structural aspects	1-16

MSE	544		and properties of natural fibers including anatomy, ultrastructure, and chemistry. (Crosslisted course offered as CE 594, MSE 544).	and properties of natural fibers including anatomy, ultrastructure, and chemistry. (Crosslisted course offered as CE 594, MSE 544). <u>Cooperative: Open to UI degree-seeking students.</u>	
CE / MSE	595 / 545	Revise	<b>Polymer and Composite Processing</b> 3 Polymer and composite processing from fundamental principles to practical applications. (Crosslisted course offered as CE 595, MSE 545).	<b>Polymer and Composite Processing</b> 3 Polymer and composite processing from fundamental principles to practical applications. (Crosslisted course offered as CE 595, MSE 545). <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
CE / MSE	596 / 546	Revise	<b>Engineered Wood Composites</b> 3 Theory and practice of wood composite materials, manufacture and development. (Crosslisted course offered as CE 596, MSE 546).	<b>Engineered Wood Composites</b> 3 Theory and practice of wood composite materials, manufacture and development. (Crosslisted course offered as CE 596, MSE 546). <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
CE / MSE	597 / 547	Revise	<b>Polymers and Surfaces for Adhesion</b> 3 Physical chemistry of polymers and surfaces needed to understand interface morphology, adhesion mechanisms and bond performance. (Crosslisted course offered as CE 597, MSE 547). Required preparation must include MSE 402 or 404.	<b>Polymers and Surfaces for Adhesion</b> 3 Physical chemistry of polymers and surfaces needed to understand interface morphology, adhesion mechanisms and bond performance. (Crosslisted course offered as CE 597, MSE 547). Required preparation must include MSE 402 or 404. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
CE / MSE	598 / 548	Revise	<b>Natural Fiber Polymer Composites</b> 3 Fundamentals, development and application of composite materials produced from polymers reinforced with natural fibers and wood as major components. (Crosslisted course offered as CE 598, MSE 548).	<b>Natural Fiber Polymer Composites</b> 3 Fundamentals, development and application of composite materials produced from polymers reinforced with natural fibers and wood as major components. (Crosslisted course offered as CE 598, MSE 548). <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
CPT S	427 / 527	Revise	<b>Computer Security</b> 3 Course Prerequisite: CPT S 360 with a C or better; MATH 216 with a C or better; certified major in Computer Science, Computer Engineering, or Electrical Engineering. <del>Computer security concepts, models and mechanism; encryption technology,</del>	<b>Computer Security</b> 3 Course Prerequisite: CPT S 360 with a C or better; MATH 216 with a C or better; certified major in Computer Science, Computer Engineering, or Electrical Engineering. <u>Examines cyber vulnerabilities and attacks against computer systems and</u>	1-16

			<del>formal models, policy and ethical implications. Credit not granted for both CPT S 427 and CPT S 527.</del>	<u>networks; includes security protection mechanisms; cryptography, secure communication protocols, information flow enforcement, network monitoring, and anonymity techniques. Credit not granted for both CPT S 427 and CPT S 527.</u>	
<b>E E</b>	<b>311</b>	<b>Revise</b>	<b>Electronics 3</b> Course Prerequisite: <del>E E 214 with a C or better;</del> E E 261 with a C or better; concurrent enrollment in E E 352; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Fundamental device characteristics including diodes, MOSFETs and bipolar transistors; small- and large-signal characteristics and design of linear circuits. Typically offered Fall and Spring.	<b>Electronics 3</b> Course Prerequisite: E E 261 with a C or better; concurrent enrollment in E E 352; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Fundamental device characteristics including diodes, MOSFETs and bipolar transistors; small- and large-signal characteristics and design of linear circuits. Typically offered Fall and Spring.	<b>1-16</b>
<b>ME</b>	<b>501</b>	<b>Revise</b>	<b>Continuum Mechanics 3</b> Unified presentation of principles common to all branches of solid and fluid mechanics; viscous fluids, elasticity, viscoelasticity, and plasticity. Typically offered Fall.	<b>Continuum Mechanics 3</b> Unified presentation of principles common to all branches of solid and fluid mechanics; viscous fluids, elasticity, viscoelasticity, and plasticity. Typically offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	<b>1-16</b>
<b>ME</b>	<b>502</b>	<b>Revise</b>	<b>Sustainability Assessment for Engineering Design 3</b> Sustainability assessment, including environmental, societal, and economic assessment, in design and planning for entire product life cycle. Typically offered Fall.	<b>Sustainability Assessment for Engineering Design 3</b> Sustainability assessment, including environmental, societal, and economic assessment, in design and planning for entire product life cycle. Typically offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	<b>1-16</b>
<b>ME</b>	<b>503</b>	<b>Revise</b>	<b>Systems Design Approaches for Sustainability 3</b> Sustainability in systems design methodologies; systems modeling and decision-making for sustainability; multidisciplinary design optimization; research topics.	<b>Systems Design Approaches for Sustainability 3</b> Sustainability in systems design methodologies; systems modeling and decision-making for sustainability; multidisciplinary design optimization; research topics. <u>Cooperative: Open to UI degree-seeking students.</u>	<b>1-16</b>
<b>ME / MSE</b>	<b>509</b>	<b>Revise</b>	<b>MEMS Engineering 3 (2-3)</b> Introduction to the design, fabrication and application of	<b>MEMS Engineering 3 (2-3)</b> Introduction to the design, fabrication and application of	<b>1-16</b>

			microelectromechanical systems. (Crosslisted course offered as ME 509, MSE 509).	microelectromechanical systems. (Crosslisted course offered as ME 509, MSE 509). <u>Cooperative: Open to UI degree-seeking students.</u>	
ME	516	Revise	<b>Conduction and Radiation Heat Transfer</b> 3 Principles of conduction and radiation heat transfer with focus on solving conduction and radiation problems of engineering interest. Typically offered Spring.	<b>Conduction and Radiation Heat Transfer</b> 3 Principles of conduction and radiation heat transfer with focus on solving conduction and radiation problems of engineering interest. Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
ME / MSE	520	Revise	<b>Multiscale Modeling in Thermomechanics of Materials</b> 3 Multiscale problems in thermomechanics of materials; practical and computational aspects of homogenization, granular materials, dislocation plasticity and atomistic methods. (Crosslisted course offered as ME 520, MSE 520). Typically offered Spring.	<b>Multiscale Modeling in Thermomechanics of Materials</b> 3 Multiscale problems in thermomechanics of materials; practical and computational aspects of homogenization, granular materials, dislocation plasticity and atomistic methods. (Crosslisted course offered as ME 520, MSE 520). Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
ME / MSE	531	Revise	<b>Theory of Plasticity</b> 3 The fundamentals of the theory of plasticity; the classical theory of plasticity; the classical theory and modern continuum theories of large elasto-plastic deformations. (Crosslisted course offered as ME 531, MSE 531). Typically offered Spring.	<b>Theory of Plasticity</b> 3 The fundamentals of the theory of plasticity; the classical theory of plasticity; the classical theory and modern continuum theories of large elasto-plastic deformations. (Crosslisted course offered as ME 531, MSE 531). Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
ME	565	Revise	<b>Nuclear Reactor Engineering</b> 3 Reactor power distribution; thermal and exposure limits; critical heat flux and pressure design; neutronic/thermal hydraulic relationships; transient/accident analysis. Typically offered Spring.	<b>Nuclear Reactor Engineering</b> 3 Reactor power distribution; thermal and exposure limits; critical heat flux and pressure design; neutronic/thermal hydraulic relationships; transient/accident analysis. Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
ME	575	Revise	<b>Geometric Modeling</b> 3 Study of the mathematics behind the creation of complex shapes for CAD using curves, surfaces, and solids. Typically offered Spring.	<b>Geometric Modeling</b> 3 Study of the mathematics behind the creation of complex shapes for CAD using curves, surfaces, and solids. Typically offered Spring. <u>Cooperative: Open to UI degree-</u>	1-16

				seeking students.	
ME	579	Revise	<b>Advanced Topics in Mechanical Engineering V</b> 1-3 May be repeated for credit. Typically offered Fall, Spring, and Summer.	<b>Advanced Topics in Mechanical Engineering V</b> 1-3 May be repeated for credit. Typically offered Fall, Spring, and Summer. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
ME	598	Revise	<b>Seminar 1</b> May be repeated for credit. Current research interests. S, F grading. Typically offered Fall and Spring.	<b>Seminar 1</b> May be repeated for credit. Current research interests. Typically offered Fall and Spring. <u>Cooperative: Open to UI degree-seeking students. S, F grading.</u>	1-16
MSE	503	Revise	<b>Advanced Topics in Materials Engineering V</b> 1-3 May be repeated for credit; cumulative maximum 6 hours.	<b>Advanced Topics in Materials Engineering V</b> 1-3 May be repeated for credit; cumulative maximum 6 hours. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
MSE	508	Revise	<b>Polymer Nanocomposites and Functionalities 3</b> Structures, properties, fabrication and applications of nano-scale material and their polymer nanocomposites; functionalities including flame retardant, electrically, thermal and damping properties. Typically offered Spring.	<b>Polymer Nanocomposites and Functionalities 3</b> Structures, properties, fabrication and applications of nano-scale material and their polymer nanocomposites; functionalities including flame retardant, electrically, thermal and damping properties. Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
MSE / ME	514	Revise	<b>Thermodynamics of Solids 3</b> Thermodynamic properties of solid solutions; models for substitutional and interstitial solutions; configurational and non-configurational contributions; calculation of phase diagrams. (Crosslisted course offered as MSE 514, ME 514). Typically offered Fall.	<b>Thermodynamics of Solids 3</b> Thermodynamic properties of solid solutions; models for substitutional and interstitial solutions; configurational and non-configurational contributions; calculation of phase diagrams. (Crosslisted course offered as MSE 514, ME 514). Typically offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
MSE	515	Revise	<b>Electronic Properties of Materials 3</b> Electron energy bands in solids, electrical conduction in metals and semiconductors, applications to semi-conduction devices based on silicon and III-V compounds. Typically offered Fall.	<b>Electronic Properties of Materials 3</b> Electron energy bands in solids, electrical conduction in metals and semiconductors, applications to semi-conduction devices based on silicon and III-V compounds. Typically offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
MSE / ME	517	Revise	<b>Thin Films 3</b> Materials science aspect of thin films, including	<b>Thin Films 3</b> Materials science aspect of thin films, including	1-16

			growth, characterization, and properties for electrical, mechanical, corrosion, and optical behavior. (Crosslisted course offered as MSE 517, ME 517). Typically offered Spring.	growth, characterization, and properties for electrical, mechanical, corrosion, and optical behavior. (Crosslisted course offered as MSE 517, ME 517). Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	
<b>MSE</b>	<b>523</b>	<b>Revise</b>	<b>Ceramics Processing 3</b> Fundamentals of ceramic processing science for thin films and bulk ceramics. Ceramics Processing 3 Fundamentals of ceramic processing science for thin films and bulk ceramics. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	<b>Ceramics Processing 3</b> Fundamentals of ceramic processing science for thin films and bulk ceramics. Ceramics Processing 3 Fundamentals of ceramic processing science for thin films and bulk ceramics. Typically offered Spring. Cooperative: Open to UI degree-seeking students. <u>Cooperative: Open to UI degree-seeking students.</u>	<b>1-16</b>
<b>MSE / ME</b>	<b>537</b>	<b>Revise</b>	<b>Fracture Mechanics and Mechanisms 3</b> Fracture mechanics and mechanisms and the microstructural origins of toughness in metals, polymers and composites. (Crosslisted course offered as MSE 537, ME 537). Typically offered Spring.	<b>Fracture Mechanics and Mechanisms 3</b> Fracture mechanics and mechanisms and the microstructural origins of toughness in metals, polymers and composites. (Crosslisted course offered as MSE 537, ME 537). Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	<b>1-16</b>
<b>MSE</b>	<b>592</b>	<b>Revise</b>	<b>Transmission Electron Microscopy 3</b> Development of the principles and applications of electron optics in microscopy.	<b>Transmission Electron Microscopy 3</b> Development of the principles and applications of electron optics in microscopy. <u>Cooperative: Open to UI degree-seeking students.</u>	<b>1-16</b>