

MEMORANDUM

Faculty Senate approved November 14, 2024

TO: Deans and Chairs

FROM: Becky Bitter, Sr. Assistant Registrar

DATE: November 5, 2024

SUBJECT: Minor Change Bulletin No. 3

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
ARCH	510	Revise	Graduate Design Studio III 6 (0-12) Intensive summer studio focusing on design projects that address significant issues in a particular context and locale (regional, national, or international city) outside of Pullman. Typically offered Summer Session.	Graduate Design Studio III 6 (0-12) <u>Course Prerequisite: ARCH 403 with a C or better.</u> Intensive summer studio focusing on design projects that address significant issues in a particular context and locale (regional, national, or international city) outside of Pullman. Typically offered Summer Session.	5-25
ARCH	511	Revise	Graduate Design Studio IV 6 (0-12) Graduate studio experience researching a single topic of material relevance to architecture. Travel for site visit required. Typically offered Fall.	Graduate Design Studio IV 6 (0-12) <u>Course Prerequisite: ARCH 510 with a C or better.</u> Graduate studio experience researching a single topic of material relevance to architecture. Travel for site visit required. Typically offered Fall.	5-25
ART	359	Revise	Studio Fabrication 3 (0-6) May be repeated for credit; cumulative maximum 9 credits. Introduction to 2D and 3D digital fabrication techniques with software and hardware including 3D printers, scanners, laser cutters, and CNC machines; integration of technologies with traditional fabrication methods.	3D Modeling and Studio Fabrication 3 (0-6) May be repeated for credit; cumulative maximum 9 credits. Introduction to 2D and 3D digital fabrication techniques with software and hardware including 3D printers, scanners, laser cutters, and CNC machines; integration of technologies with traditional	1-25

			Typically offered Fall and Spring.	fabrication methods. Typically offered Fall and Spring.	
BIO ENG	411	Revise	[CAPS] Bioengineering Capstone Project II 3 (2-2) Course Prerequisite: BIO ENG 410 with a C or better; senior standing. Detailed design and business case for a biological engineering related process, machine, structure, or system. Recommended preparation: ECONS 101 or 102. Typically offered Spring.	<u>[CAPS] Bioengineering Capstone Project II 3 (2-2) Course Prerequisite: BIO ENG 410 with a C or better; admitted to the major in Bioengineering. Part II of capstone engineering design project; prototype implementation, verification, validation, and delivery.</u> Typically offered Spring.	8-25
BIO ENG	430	Revise	Bioinstrumentation 3 (2-3) Course Prerequisite: BIO ENG 325; E E 261, each with a C or better. Principles of instrumentation applicable to bioengineering systems; experimental design for measurement systems. Typically offered Fall.	<u>Bioinstrumentation 3 (2-3) Course Prerequisite: E E 261; BIO ENG 325 or E E 262; each with a C or better.</u> Principles of instrumentation applicable to bioengineering systems; experimental design for measurement systems. Typically offered Fall.	8-25
BIO ENG	440	Revise	Biological Control Systems 3 (2-3) Course Prerequisite: BIO ENG 360 with a C or better. Feedback control system analysis and design, with applications to physiological and biomedical engineering systems. Typically offered Spring.	<u>Physiological Control Systems 3 (2-3) Course Prerequisite: BIO ENG 360 with a C or better.</u> Feedback control system analysis and design, with applications to physiological and biomedical engineering systems. Typically offered Spring.	8-25
BIO ENG	456	Revise	Protein Bioengineering 3 Course Prerequisite: Senior standing. Integrating molecular biology and engineering sciences to analyze, change, and design proteins' structure and function. Recommended preparation: Organic chemistry and/or biochemistry. Credit not granted for both BIO ENG 456 and 556. Offered at 400 and 500 level. Typically offered Spring.	<u>Protein Bioengineering 3 Course Prerequisite: BIO ENG 350 with a C or better, or BIO ENG 475 with a C or better or concurrent enrollment.</u> Integrating molecular biology and engineering sciences to analyze, change, and design proteins' structure and function. Recommended preparation: Undergraduate cellular bioengineering and biochemical engineering. Credit not granted for both BIO ENG 456 and 556. Offered at 400 and 500 level. Typically offered Spring.	8-25
BIO ENG	556	Revise	Protein Bioengineering 3 Integrating molecular biology	<u>Protein Bioengineering 3 Integrating molecular biology</u>	8-25

			and engineering sciences to analyze, change, and design proteins' structure and function. Recommended preparation: Organic chemistry and/or biochemistry. Credit not granted for both BIO ENG 456 and 556. Offered at 400 and 500 level. Typically offered Spring.	and engineering sciences to analyze, change, and design proteins' structure and function. <u>Recommended preparation: Undergraduate cellular bioengineering and biochemical engineering.</u> Credit not granted for both BIO ENG 456 and 556. Offered at 400 and 500 level. Typically offered Spring.	
CHE / BIO ENG	476	Revise	Biomedical Engineering Principles 3 Course Prerequisite: CHE 310 with a C or better. The application of chemical engineering principles to biomedical processes. (Crosslisted course offered as CHE 476, BIO ENG 476.) Typically offered Spring.	<u>Applied Molecular and Cellular Bioengineering 3</u> Course Prerequisite: <u>BIO ENG 350, OR CHE 310 and CHE 301, each with a C or better. Applying bioengineering and chemical engineering kinetics and transport principles to practical applications in cellular and biological separations, biomanufacturing, tissue engineering, protein design, drug delivery, and bioassays.</u> (Crosslisted course offered as CHE 476, BIO ENG 476.) Typically offered Spring.	8-25
ENGR	420	Revise	Multidisciplinary Engineering Design I 3 (1-4) Course Prerequisite: Admitted to an engineering major; senior standing. Needs analysis and conceptualization of technological products and business plan for target market; multidisciplinary team development. Typically offered Fall.	<u>Multidisciplinary Engineering Design I 3</u> (1-4) Course Prerequisite: <u>ENGR 320; senior standing.</u> Needs analysis and conceptualization of technological products and business plan for target market; multidisciplinary team development. Typically offered Fall.	8-25
FRENCH	410	Revise	[CAPS] French Film in Translation 3 (2-2) Course Prerequisite: Junior standing. In depth study of French cinema integrating its history, techniques, methods, and global impact. Taught in English. French majors will complete academic work requirements in the target language. Typically offered Fall and Spring.	<u>[CAPS] French Film in Translation 3</u> Course Prerequisite: Junior standing. In depth study of French cinema integrating its history, techniques, methods, and global impact. Taught in English. French majors will complete academic work requirements in the target language. Typically offered Fall and Spring.	1-25

			Cooperative: Open to UI degree-seeking students.	Cooperative: Open to UI degree-seeking students.	
MUS	257	Revise	Applied Jazz Theory and Improvisation I 2 (0-6) Course Prerequisite: MUS 251 with a C or better; MUS 252 with a C or better. Applied study of fundamental jazz theory and improvisation concepts including rhythms, four-part chords, modes of the major scale, ii-V7-I progression, harmonic minor scale, guidetones, 12-bar blues form, and blues scales. Typically offered Spring.	Applied Jazz Theory and Improvisation I 2 (0-6) Course Prerequisite: MUS 251 with a C or better; MUS 252 with a C or better. Applied study of fundamental jazz theory and improvisation concepts including rhythms, four-part chords, modes of the major scale, ii-V7-I progression, harmonic minor scale, guidetones, 12-bar blues form, and blues scales.	1-25
MUS	258	Revise	Applied Jazz Theory and Improvisation II 2 (0-6) May be repeated for credit; cumulative maximum 4 credits. Course Prerequisite: MUS 257 with a C or better. Applied study of intermediate jazz theory and improvisation concepts including five-part chords, modes of melodic minor scale, chord-scale theory, idiomatic jazz progressions, voice-leading, rhythm changes, bebop blues, and bebop scales. Typically offered Fall.	Applied Jazz Theory and Improvisation II 2 (0-6) May be repeated for credit; cumulative maximum 4 credits. Course Prerequisite: MUS 257 with a C or better. Applied study of intermediate jazz theory and improvisation concepts including five-part chords, modes of melodic minor scale, chord-scale theory, idiomatic jazz progressions, voice-leading, rhythm changes, bebop blues, and bebop scales.	1-25
MUS	452	Revise	Electronic Music Techniques 2 Course Prerequisite: MUS 164. Composition and performance using computer-controlled digital, analog, and sampling synthesis; topics include sequencing, waveform editing, signal processing, spatialization, and performance. Typically offered Fall.	Electronic Music Techniques 2 Course Prerequisite: MUS 164. Composition and performance using computer-controlled digital, analog, and sampling synthesis; topics include sequencing, waveform editing, signal processing, spatialization, and performance. <u>Typically offered Odd Years - Spring.</u>	1-25
MUS	458	Revise	Applied Jazz Theory and Improvisation III 2 (0-6) May be repeated for credit; cumulative maximum 4 credits. Course Prerequisite: MUS 258 with a C or better. Applied study of advanced jazz theory and improvisation concepts including	Applied Jazz Theory and Improvisation III 2 (0-6) May be repeated for credit; cumulative maximum 4 credits. Course Prerequisite: MUS 258 with a C or better. Applied study of advanced jazz theory and improvisation concepts including	1-25

			pentatonic scales, Coltrane changes, whole-tone scales, octatonic scales, upper structure triads, triad pairs, intervallic improvisation, and reharmonization techniques. Typically offered Even Years—Spring.	pentatonic scales, Coltrane changes, whole-tone scales, octatonic scales, upper structure triads, triad pairs, intervallic improvisation, and reharmonization techniques.	
MUS	484	Revise	Woodwind Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education major. Performance and pedagogy of woodwind instruments for music educators. Typically offered Even Years—Fall.	Woodwind Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education major. Performance and pedagogy of woodwind instruments for music educators. <u>Typically offered Fall.</u>	1-25
MUS	485	Revise	Woodwind Techniques II 1 (0-2) Course Prerequisite: MUS 190; MUS 484. Second level of performance and pedagogy of woodwind instruments for music educators. Typically offered Odd Years—Spring.	Woodwind Techniques II 1 (0-2) Course Prerequisite: MUS 190; MUS 484. Second level of performance and pedagogy of woodwind instruments for music educators. <u>Typically offered Spring.</u>	1-25
MUS	486	Revise	String Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education major. Performance and pedagogy of string instruments for music educators. Typically offered Even Years—Fall.	String Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education major. Performance and pedagogy of string instruments for music educators. <u>Typically offered Fall.</u>	1-25
MUS	487	Revise	String Techniques II 1 (0-2) Course Prerequisite: MUS 190; MUS 486. Second level of performance and pedagogy of string instruments for music educators. Typically offered Odd Years—Spring.	String Techniques II 1 (0-2) Course Prerequisite: MUS 190; MUS 486. Second level of performance and pedagogy of string instruments for music educators. <u>Typically offered Spring.</u>	1-25
MUS	492	Revise	Brass Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education major. Performance and pedagogy of brass instruments for music educators. Typically offered Odd Years—Fall.	Brass Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education major. Performance and pedagogy of brass instruments for music educators. <u>Typically offered Fall.</u>	1-25
MUS	494	Revise	Percussion Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education	Percussion Techniques I 1 (0-2) Course Prerequisite: MUS 190 if enrolled as music education	1-25

			major. Performance and pedagogy of percussion instruments for music educators. Typically offered Odd Years– Fall.	major. Performance and pedagogy of percussion instruments for music educators. <u>Typically offered Spring.</u>	
NEUROSCI	430	Revise	[M] Principles of Neurophysiology 3 Course Prerequisite: NEUROSCI 301. Advanced exploration of the principles underlying cellular, sensory, motor and integrative functions of the nervous system. Recommended preparation: previous or concurrent enrollment in PHYSICS 102 and 112, or PHYSICS 202 and 212, or PHYSICS 206. Typically offered Fall.	[M] Principles of Neurophysiology 3 Course <u>Prerequisite: NEUROSCI 301 or PSYCH 372.</u> Advanced exploration of the principles underlying cellular, sensory, motor and integrative functions of the nervous system. Recommended preparation: previous or concurrent enrollment in PHYSICS 102 and 112, or PHYSICS 202 and 212, or PHYSICS 206. Typically offered Fall.	8-25
NEUROSCI	431	Revise	Principles of Neurophysiology Laboratory 1 (0-3) Course Prerequisite: NEUROSCI 301; NEUROSCI 430 or concurrent enrollment or instructor permission. Advanced laboratory exploration of the principles underlying cellular, sensory, motor, and integrative functions of the nervous system. Recommended preparation: MBIOS 303. Typically offered Fall.	Principles of Neurophysiology Laboratory 1 (0-3) Course <u>Prerequisite: NEUROSCI 301 or PSYCH 372; NEUROSCI 430 or concurrent enrollment or instructor permission.</u> Advanced laboratory exploration of the principles underlying cellular, sensory, motor, and integrative functions of the nervous system. Recommended preparation: MBIOS 303. Typically offered Fall.	8-25