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PSU C	urricular	Char	iaes - I	Effective for Academic Year 20	016-17	
	mitted to OrACI					
	ılar Change Cyc					
	submission dat					
Name & cor	tact info of pers	on upda	ting this te	mplate: Steve Harmon 503-725-4596		
Effective Term	New (N) Modified (M) Deleted (D)	Prefix	Course#	Course Title	Course Description	Type of Change (for modified classes only)
Fall 2016	М	Actg	335	Accounting Information Systems	Methodology used in manual and computer systems for the accumulation, classification, processing, analysis, and communication of accounting data. Development of the accounting techniques used in the handling of large amounts of information; special journals and controlling accounts; computer files for storing data; computer processing of data. Discussion of the problems encountered in the systems for different types of organizations. Prerequisites: BA 213, BA 325, Ec 202, Stat 241 or Stat 243. Emphasis on the development, analysis, and communication of cost information relevant to the following functions: planning, decision making, cost control and management, pricing, and performance evaluation. Prerequisities: BA 213, Ec 202, Stat	
Fall 2016	М	Actg	360	Management Accounting	4 241 or Stat 243.	Prerequisites
Fall 2016	м	Actg	381	FinancialAccounting and Reporting I	Comprehensive study of the principles, conventions and postulates of financial accounting. Appropriate preparation of GAAP financial statements and financial disclosures, including exposure to the judgment inherent in financial reporting. Considers information requirements and expectations of users of financial statements. International financial accounting standards will be considered where appropriate. Specific focus on the responsibility of accountants for maintaining professional accountability to the public interest in the face of institutional pressures. This is the first course in a sequence of three: Actg 381, Actg 382, and Actg 383 which must be taken in sequence. Prerequisites: Ba 213, Ec 202, Stat 241 or Stat 243.	Prerequisites
Fall 2016 Fall 2016	M	Actg Actg	485 512	Business Law Managerial Accounting and Control	Laws of contracts, negotiable checks, notes, and drafts, insurance, documents of title, sales of goods, letters of credit, employees and independent contractors, agency, partnership, corporations, securities, bankruptcy, security interests, mortgages, suretyship and bulk sales. Covers law part of CPA exam. Prerequisites: BA 213, Ec 202, Stat 241 or Stat 243.	Prerequisites
Fall 2016	N	Actg	513	Managerial Accounting and Control	The course covers managerial accounting and control issues, and focuses on the identification and use of accounting information as well as other information from within the organization.	
Fall 2016	N		526	Accounting Methods and Periods	Deals with federal income tax issues that arise with respect to the determination of the proper periods for reporting income and deductions, overall methods of tax accounting and all of the choices and options available to taxpayers.	
Fall 2016	N	Actq	528	Corporate Taxation II	Continuation of Corporate Taxation I with emphasis on corporate reorganizations, operation, liquidation of subsidiary corporations and corporate division, and carryover of tax attributes.	
Fall 2016	M	Actg	531	Partnership Taxation	4	Credit hours
Fall 2016	D	Actg	532	Corporation Reorganization and Liquidation	3	
Fall 2016	N	Actg	532	S Corporations Taxation	Examination of tax treatment, tax problems, and tax planning techniques involving S corporations; eligibility rules; election, revocation, and termination; treatment of income, deductions, and credits; determining the shareholder's taxable income; pass-through of corporate net operating loss; distributions of previously taxed income; and special taxes applicable to S corporations. Prerequisite: Actg 527 and Actg 531.	

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						Students are exposed to the federal income tax consequences resulting from sales,	
						exchanges, and other dispositions of property, determining the taxable event;	
						ascertaining basis and amount realized; depreciation deductions; ascertaining gain or	
Fall 2016	N	A -4	533	Financial Accounting for Income Taxes	4	loss; limitations regarding the use of losses, including the at-risk and passive activity loss provisions. Prerequisite: Actg 528.	
Faii 2010	IN	Actg	333	Financial Accounting for Income Taxes	4	loss provisions. Frerequisite. Actg 320.	
						Examination of issues and taxation other than federal income tax, including property tax	
							Description, prerequisite, credit
Fall 2016	М	Actg	535	State and Local Taxation	4	sumptuary and regulatory excise taxes. Prerequisite: Actg 525	hours
		111.9				Introduction to U.S. taxation of U.S. firms, citizens, and residents with foreign source	
						income, and U.S. taxation of foreign firms and individuals doing business within the	Description, prerequisite, credit
Fall 2016	M	Actg	536	International Taxation	4	United States. Prerequisite: Actg 527.	hours
Fall 2016	D	Actg	537	Tax Accounting Problems	3		
						This capstone course provides students with an opportunity to work on real business	
						problems for companies. MTax students work as a 3-4 person consulting team with a	
						client and Faculty Advisor to develop solutions that will be put to use by the client.	
Fall 2016	N	Actg	537	Tax Accounting Capstone Consulting Project	4	Prerequisite: Final term of program.	
						The Accounting Practicum is an internship with an accounting firm or corporate finance	
						group. This provides opportunities to apply program content to real-world environments,	
Fall 2016	N	A -4	540	Practicu/Internship	4	gain appreciation of work expectations and demands, and relate field experience to remaining taxation program curriculum. Prerequisite: Final term of program.	
Fall 2016	IN	Actg	340	Practicu/internship	4	remaining taxation program curriculum. Prerequisite. Pinai term of program.	
						In this course you will further your leadership agenda through interactive discussion with	
Fall 2016	N	Actg	544	Professional Practices Seminar	1	regional leaders in the financial, taxation, and accountancy industries.	
		3				Survey of topics in forensic science: DNA, drug chemistry, toxicology, firearms, and	
						latent prints. Focus on forensic anthropology and taphonomy, including assessment of	
						age, sex, population-based skeletal variation, and effects of peri-/post-mortem	
						environmental processes on forensic investigation. Course clarifies popular media	
						misinformation with fact-based overview of real forensic analysis. Expected preparation:	
Fall 2016	M	Anth	379	Practicing Forensic Science	4	Anth 101.	Description, prerequisite
Fall 2016	D	Ar	204	Common Spoken Arabic	4		
Fall 2016	D	Ar	205	Common Spoken Arabic	4		
Fall 2016	D	Ar	206	Common Spoken Arabic	4		
						Practical pan-Arab spoken Arabic used in social, intellectual gatherings and business in	
						lieu of limited local spoken "dialects," or the fus-ha (literary Arabic), understandable and	
						usable anywhere in the Arab world. For non-native speakers of Arabic only. This is the first course in a sequence of three: Ar 304, Ar 305, and Ar 306. Prerequisite: Ar 203 or	
Fall 2016	м	Ar	304	Common Spoken Arabic Term 1	4	consent of instructor.	Title, description, prerequisite
1 411 2010	141	Ai -	004	Common Opokon / Rubio Tomi T	7	Practical pan-Arab spoken Arabic used in social, intellectual gatherings and business in	nae, description, prerequisite
						lieu of limited local spoken "dialects," or the fus-ha (literary Arabic), understandable and	
						usable anywhere in the Arab world. For non-native speakers of Arabic only. This is the	
						second course in a sequence of three: Ar 304, Ar 305, and Ar 306. Prerequisite: Ar 203	
Fall 2016	M	Ar	305	Common Spoken Arabic Term 2	4	and Ar 304.	Title, description, prerequisite
						Practical pan-Arab spoken Arabic used in social, intellectual gatherings and business in	
						lieu of limited local spoken "dialects," or the fus-ha (literary Arabic), understandable and	
1						usable anywhere in the Arab world. For non-native speakers of Arabic only. This is the	
						third course in a sequence of three: Ar 304, Ar 305, and Ar 306. Prerequisite: Ar 203	
Fall 2016	М	Ar	306	Common Spoken Arabic Term 3	4	and Ar 305.	Title, description, prerequisite
1						Reading, translating, and analyzing texts of extemporized-sung folk poetry (zajal)	
						covering major genres and lyrics of folk songs composed in vernacular Arabic; viewing videos of social occasions where these genres are performed. Conducted in English.	
						Also offered for graduate-level credit as Ar 521 and may be taken only once for credit.	
Fall 2016	M	Ar	421	Extemporized-Sung Poetry and Fok Songs of the Arabs	4	Prerequisites: Ar 303 & Ar 306 or consent of instructor.	Description, prerequisite
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Fall 2016	м	Ar	427	Classical Arabic Prose	4	Introduction to the history of Arabic prose (7th – 18th century AD); reading selected texts from classic literary works of major authors such as Ibn al-Muqaffa', al-Jahiz, al-Isfahani, Ibn 'Adiy, and Ibn 'Abd Rabbuh; translating texts and writing literary reviews in Arabic. Also offered for graduate-level credit as Ar 527 and may be taken only once for credit. Prerequisite: Ar 303 or consent of instructor.	Title, prerequisite
Fall 2016	М	A-	521	Extemporized-Sung Poetry and Fok Songs of the Arabs	4	Reading, translating, and analyzing texts of extemporized-sung folk poetry (zajal) covering major genres and lyrics of folk songs composed in vernacular Arabic; viewing videos of social occasions where these genres are performed. Conducted in English. Also offered for undergraduate-level credit as Ar 421 and may be taken only once for credit.	Description prorequisite
Fall 2016	IVI	Ar	521	Extemporized-Sung Poetry and Fok Songs of the Arabs	4		Description, prerequisite
Fall 2016	М	Ar	527	Classical Arabic Prose	4	Introduction to the history of Arabic prose (7th – 18th century AD); reading selected texts from classic literary works of major authors such as Ibn al-Muqaffa', al-Jahiz, al-Isfahani, Ibn 'Adiy, and Ibn 'Abd Rabbuh; translating texts and writing literary reviews in Arabic. Also offered for undergraduate-level credit as Ar 427 and may be taken only once for credit.	Title, prerequisite
1 411 2010	141	A	021	Oldsoldal / Wabio 1 1000	7	Basic metal working skills, including cutting, welding, blacksmithing and safety protocols.	Title, prerequisite
Fall 2016	N	Arch	198	Metal Shop Skills Workshop	1	Prerequisite: Arch 281.	
Fall 2016	M	Arch	280	Design Fundamentals Studio 1	6	Foundational design studio sequence initiating awareness of the creative language of architecture through practical assignments in drawing, modeling, and artful making. The communication of perceptions and imaginative propositions through the use of diverse media is encouraged. Includes individual criticism, lectures, and seminar discussions. This is the first course in a sequence of two: Arch 280 and Arch 281 which must be taken in sequence. Prerequisite: Arch 121.	Prerequisite
1 4.11 2010		7 (1011	200	Doorgin i andamentale etadle i		and in objection for equality from 121.	. Toroquiono
Fall 2016	м	Arch	281	Design Fundamentals Studio 2	6	Foundational design studio sequence initiating awareness of the creative language of architecture through practical assignments in drawing, modeling, and artful making. The communication of perceptions and imaginative propositions through the use of diverse media is encouraged. Includes individual criticism, lectures, and seminar discussions. This is the second course in a sequence of two: Arch 280 and Arch 281 which must be taken in sequence. Prerequisite: Arch 280.	Prerequisite
						Seminar course investigating architectural theory and critical thought by examination of	
Fall 2016	M	Arch	530	Contemporary Architectural Theory	4	key texts and contemporary architectural works.	Prerequisite: add Arch 580.
Fall 2016	м	Arch	540	Professional Practice	4	A lecture course focusing on the context, responsibilities, licensure, principles and processes of the practice of architecture, including project and client acquisition, risk analysis, project and practice management, project delivery methods, services and scope definition, roles and responsibilities of all parties, contract forms, general conditions of the contract, compensation methods, fee budget management, contract administration, and standard of care.	Prerequisite: add Arch 581.
Fall 2016	М	Arch	583	Architectural Design Studio X	6	Studio projects and critical discussions addressing themes and issues pertinent to the imaginative design of architectural intervention in urban environments. Encouraging experimental engagement with relations of material, form, human habitation, and cultural meaning.	Prerequisite: add Arch 572.
. 311 2010		7 11 0/1			-	A survey of major trends in Italian art and architecture from the late 16th to the mid-18th	,
Fall 2016	М	ArH	376	Italian Baroque Art	4	century. Open to non-majors.	Title, description
Fall 2016	М	ArH	377	Dutch and Flemish Baroque Art	4	A survey of major trends in Dutch and Flemish art from the late 16th to the late 17th century. Open to non-majors.	Title, description
Fall 2016	м	ArH	378	Spanish Baroque Art	4	A survey of major trends in Spanish painting, sculpture, and architecture from the late 16th to the early 18thcentury. Open to non-majors.	Title, description
Fall 2016	N	ArH	379	Latin American Baroque	4	Examination of the rich artistic tradition that developed in several Latin American countries during the Spanish colonial period (1492-1821). Emphasis on Mexico and Peru, where the Aztec and Inca empires were located. Survey of the major trends in Spanish colonial painting, sculpture, and architecture.	
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Fall 2016	N	ArH	474	Art and the Early Modern City	4	Each iteration of this course explores the art, architecture, and urban development of a different renaissance or baroque city. Contact instructor for details.	

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Fall 2016	м	Art	230	Introduction to Drawing II	4	Second of a two-term sequence, this course continues to explore drawing as a means of personal expression with an emphasis on drawing from observation. Students deepen drawing strategies and continue to develop fluency in the language of line, shape, value, space, and color. This is the second course in a sequence of two: Art 131 and Art 230 and must be taken in sequence. Prerequisite: Art 115 & Art 131. Open to non-majors with instructor's consent or departmental approval.	Title, description
				3		Studio introduction to digital photography, exploring digital image capture, editing, and	,
Fall 2016	М	Art	261	Digital Photography	4	printing. Examination of the work of photographers with emphasis on conceptual development, the use of color, and digital craft, and mastery of basic digital camera controls. Course includes lectures, demonstrations, critique, and lab work. Students must provide own camera.	Title, description
Fall 2016	D	Art	262	Photoimaging	4	indst provide own camera.	ritie, description
Fall 2016	М	Art	360	Special Topics in Photography	4	A variety of photographically based practices presented through lectures, demonstrations, and assignments. Students explore technical, aesthetic, and ethical issues while developing photographic portfolios, with an emphasis placed on series, sequence and narrative. Prerequisite: Art 260 and Art 261.	Title, description, prerequisite
Fall 2016	N	Art	362	Photographic Imaging	4	Studio introduction to concepts, techniques, practices, aesthetics, and ethics of photographic imaging and image-making with digital technology. Investigations in photographic media are enabled through a variety of digital imaging techniques, including retouching, color correction, filtering, masking, layering, and compositing.	
Fall 2016	М	Art	391	Drawing Concepts	4	Develops drawing and compositional strategies, languages and methods that build on skills learned in foundation courses. Students explore historical and contemporary strategies of visual analysis, surface and space as tools for creative exploration. Prerequisite: Art 115, Art 131, & Art 230. Open to non-majors with instructor's consent or departmental approval.	Title, description, prerequisite
Fall 2016	М	Art	461	Advanced Photography Studio	4	An advanced studio course focused on the study of photographic practices and portfolio development. Students engage in discussion regarding assigned readings, practices within contemporary photography, and the critique of their own work. This course allows for a variety of photographic methods. This course is repeatable. Also offered for graduate-level credit as Art 561. Prerequisite: Art 360 or Art 362.	
Fall 2016	м	Art	561	Advanced Photography Studio	4	An advanced studio course focused on the study of photographic practices and portfolio development. Students engage in discussion regarding assigned readings, practices within contemporary photography, and the critique of their own work. This course allows for a variety of photographic methods. This course is repeatable. Also offered for undergraduate-level credit as Art 461. Prerequisite: Art 360 or Art 362.	
Fall 2016	M	BA	301	Research and Analysis of Business Problems	4	Development and use of business tools and techniques as applied to business problems. Students will identify business problems, articulate the issues, research, develop, and evaluate solution alternatives relevant to the problem, and present the results orally and in writing. Students will integrate and reinforce their skills in logical and analytical processing, critical thinking, and communication. Prerequisite: BA 205, BA 213, Comm 220, Stat 241 or Stat 243, Ec 202 and Wr 121 or the third term of FRINQ.	Prerequisites
Fall 2016	М	ВА	303	Business Finance	4	Development and study of a decision framework for financial management with special emphasis on small- and medium-sized businesses. Topics include analysis of financial health, planning for future financial performance, evaluation of investment opportunities, and analyses of risk. Financing of firm growth and valuation will be introduced. An integration of the concepts of financial management into a total system approach to business decision making will be facilitated with the use of cases, as appropriate. Prerequisites: BA 213, Ec 202, Stat 241 or Stat 243.	Prerequisites

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Fall 2016	М	ВА	325	Competing with Information Technology	4	Presents the key steps required to gain a competitive advantage in the marketplace through the use of information technologies. Primary focus is to help students understand the information systems development lifecycle and the ways that systems can support functional areas of a business. Other topics include: communication technologies to support groups, productivity software and applications, designing systems for competitive advantage, and systems reengineering. Prerequisites: BA 213, Ec 202, Stat 241 or Stat 243.	Prerequisites
						This course is the first stage for the development of leadership competencies in the MBA program. Students will be involved in various activities to assess and develop their interpersonal, communication, problem solving, and systems thinking competencies,	
Fall 2016	M	BA	521	Leadership Development and Assessment	2	and will use the results of their assessments to write a personal development plan. A business simulation experience designed to assess students' technical and	Description
E 11 0040		D.4	E04	Londorship Immercian		leadership skills. This course can only be taken as a pass/no pass grading option.	Proroguisito
Fall 2016 Fall 2016	M	BA BA	524 525	Leadership Immersion Capstone Consulting Project	1	Prerequisite: Fin 513.	Prerequisite
Fall 2016	IVI	DA	323	Capsione Consulting Project		Explores global business issues through the lens of one or more of the region's key	
Fall 2016	N	BA	527	MBA Domestic Business Experience	4	industry sectors. Students will learn from executives and innovators leading groundbreaking global efforts and initiatives.	
Fall 2016	N	ВА	528	MBA Culture Module	1	This course is intended to help students prepare for their international experience trips by developing a greater understanding of culture and cross-cultural communication in the business setting.	
F-II 2040	N.	DA	529	Duilding Effective Teams	4	The purpose of this course is to teach the theory and processes of group and team behavior so that students can successfully manage groups and work effectively in a waiting the processing the processin	
Fall 2016	N	BA	529	Building Effective Teams	1	variety of team settings.	
Fall 2016	N	ВА	530	Thought Leadership	1	Under the direction of a faculty member, students will examine relevant topics in business, and explore the connection between academic research and the needs of the business community.	
Fall 2016	М	Bi	336	Cell Biology	5	Biology of eukaryotic (plant/animal) and prokaryotic cells (bacteria, etc.) with emphasis on physiology, biochemistry, morphology, and energetic. Four hours of lecture and one hour of recitation. Expected preparation: BI 334 Molecular.	Prerequisite
Fall 2010	IVI	ы	330	Cell Biology	3	Laboratory using recombinant DNA and molecular cloning techniques applied to current	·
						research projects. Presentations and discussions of scientific literature. Also offered for	
				Advanced Molecular and Cell Biology Research		graduate-level credit as Bi 531 and may be taken only once for credit. Prerequisite: Bi	
Fall 2016	M	Bi	431	Laboratory	2	334; Bi 235 or Bi 337.	Title, description, prerequisite
Fall 2016	N	Bi	438	Plant Chemical Biology	3	Covers the diversity and function of chemical plant traits and their impact on plant-associated organisms. Students will learn about groups of compounds, their regulation, effects and potential applications and will gain an understanding of how different plant traits functionally interact including positive (defense syndromes) and negative (tradeoffs) associations. Prior completion of Bi 330 recommended. Also offered for graduate-level credit as Bi 538 and may be taken only once for credit. Prerequisites: Bi 211 and Bi 212.	
Fall 2016	N	Bi	440	Evolutionary Medicine	3	An introduction to evolutionary thinking as it applies to human diseases, traits, diet, and aging. Concepts in evolutionary theory will provide a framework for understanding the ultimate causes of human ailments. Expected preparation: Bi 358. Also offered for graduate-level credit as Bi 540 and may be taken only once for credit. Prerequisite: one year of introductory biology.	
					-	Laboratory using recombinant DNA and molecular cloning techniques applied to current	
			404	Advanced Molecular and Cell Biology Research		research projects. Presentations and discussions of scientific literature. Also offered for	
Fall 2016	М	Bi	431	Laboratory	2	undergraduate-level credit as Bi 431 and may be taken only once for credit.	Title, description, prerequisite
Fall 2016	N	Bi	538	Plant Chemical Biology	3	Covers the diversity and function of chemical plant traits and their impact on plant-associated organisms. Students will learn about groups of compounds, their regulation, effects and potential applications and will gain an understanding of how different plant traits functionally interact including positive (defense syndromes) and negative (tradeoffs) associations. Prior completion of Bi 330 recommended. Also offered for undergraduate-level credit as Bi 438 and may be taken only once for credit.	
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Fall 2016	N	Bi	540	Evolutionary Medicine	3	An introduction to evolutionary thinking as it applies to human diseases, traits, diet, and aging. Concepts in evolutionary theory will provide a framework for understanding the ultimate causes of human ailments. Expected preparation: Bi 358. Also offered for undergraduate-level credit as Bi 440 and may be taken only once for credit.	
E 11 00 4 0		Por	318U	Black Families in the U.S.		Overview of contemporary theories and research of the Black family in the U.S. Examination of the historical and socio-economic contexts surrounding families and the impacts on family structure and experiences. Topics for discussion include health issues, family formations, racism, community organizing, welfare and economic security.	
Fall 2016	N	BSt	3180	Black Families in the U.S.	4		
						Effect of air, land, and water pollutants on environment. Transport and fate of pollutants in environment. Flow and mass balances of reactors. Reaction kinetics. Mathematical modeling of water quality in rivers, lakes, and estuaries. Water and wastewater treatment processes. Air quality management. Solid waste management. Prerequisite:	
Fall 2016	М	CE	371	Environmental Engineering	4	Ch 22, Ch 228, and CE 361.	Prerequisites
Fall 2016	D	CE	420	Advanced Mechanics of Materials	4		
Fall 2016	D D	CE	421 456	Analysis of Framed Structures	4		
Fall 2016 Fall 2016	D	CE	464	Traffic Engineering Hydrologic and Hydraulic Modeling	4		
	D	CE	467	Hydrologic and Hydraulic Modeling Hydrologic and Hydraulic Design	4		
Fall 2016 Fall 2016	D	CE	520	Advanced Mechanics of Materials	4		
Fall 2016	D	CE	521	Analysis of Framed Structures	4		
Fall 2016	D	CE	527	Finite Elements in Structural Mechanics	4		
Fall 2016	D	CE	528	Finite Elements in Structural Mechanics	4		
Fall 2016	D	CE	552	Highway Design for Capacity	4		
Fall 2016	D	CE	556	Traffic Engineering	4		
Fall 2016	D	CE	564	Hydrologic and Hydraulic Modeling	4		
Fall 2016	D	CE	567	Hydrologic and Hydraulic Design	4		
Fall 2016	D	CE	570	Groundwater Modeling	4		
Fall 2016	D	CE	627	Finite Elements in Structural Mechanics	4		
Fall 2016	D	CE	628	Finite Elements in Structural Mechanics	4		
Fall 2016	D	CE	652	Highway Design for Capacity	4		
Fall 2016	N	Comm	398	Topics in Communication in the Workplace	2-4	Examine communication in and for the workplace. Different topics will include: leadership, collaboration, consensus, and career-building. You will assess your communication style and critically think about the workforce. Use this course to make better sense of your current life situation and develop working knowledge.	
						Undergraduate introduction to the study of foundational concepts in the field of conflict	
Fall 2016	м	CR	310	Fundamentals of Conflict Resolution	4	resolution. The course also introduces the impact that conflict resolution practice may have on the critique and construction of theory. Professional ethical issues and other dilemmas in conflict resolution practice are also studied.	Prerequisite
						Introduction to the psychological research and insights that illuminate conflict resolution	·
Fall 2016	М	CR	311	Introduction to Conflict Resolution Psychology	4	theory and practice. A dual focus on both methods and research.	Prerequisite
Fall 2016	N	CR	314	Introduction to Restoriative Justice	4	Defines restorative justice and differentiates from restorative practices. Explores restorative justice options in the justice system at juvenile and adult levels; and evaluates restorative practices in schools.	
Fall 2016	M	CR	511	Research Methods in Conflict Resolution	2-4		Course credits.
Fall 2016	N	cs	320	Principles of Programming Languages	4	Syntax and semantics. Compilers and interpreters. Programs as data. Regular expressions and context free grammars. Programming paradigms, including procedural, functional, and object-oriented programming. Type systems, including dynamic and static typing disciplines. Binding, scope, data abstraction, and modularity. Denotational, operational, and axiomatic semantics. Introduction to program correctness. Prerequisites: CS 202, CS 251 and CS 311.	
Fall 2016	D	cs	321	Languages and Compiler Design I	4		
Fall 2016	D	cs	322	Languages and Compiler Design II	4		

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Fall 2016	м	cs	415	Parallel Programming	4	An introduction to parallel programming concepts and techniques. Topics include: parallel programming models and languages, share-memory programming, message-passing programming, performance models and analysis techniques, domain-specific parallel algorithms. Prerequisites: CS 320 and CS 333.	Prerequisites
Fall 2016	М	cs	420	Object-Oriented Programming	4	The fundamental concepts of object-oriented programming languages, including data abstraction and typing, class inheritance and generic types, prototypes and delegation, concurrency control and distribution, object-oriented databases, and implementation. To illustrate these issues, programming assignments in languages such as Smalltalk, Eiffel and C++ will be given. Prerequisite: CS 320.	Prerequisite
				Programming Language Implementation: Syntax and		Techniques and tools for construction of compiler and interpreter front-ends, including: representation of programs using abstract syntax trees; lexical analysis, and lexer generators; parsing (recursive descent, top-down, and bottom-up), and parser generators; type checking and static analysis. Design and implementation of a front-end for a small programming language. Prerequisities: CS 201, CS 202, CS 300, CS 311 and	·
Fall 2016	N N	CS	421	Static Semantics Programming Language Implementation: Code Generation and Dynamic Semantics	4	CS 320. Techniques and tools for construction of compiler and interpreter back-ends, including: interpreter design; code generation strategies for standard programming constructs; intermediate representations; optimization techniques; run-time organization, including functions, objects, and closures; run-time systems. Design and implementation of an interpreter and a compiler back-end for a small programming language. Prerequisites: CS 201, CS 202, CS 300, CS 311, and CS 320.	
Fall 2016	М	cs	438	Computer Architecture	4	Processors, memory hierarchy, and bus systems. Multi-level caches and cache coherence in MP systems. Arithmetic algorithms. RISC vs. CISC instructions, pipelining, and software pipelining. Superscalar, super pipelined, and VLIW architectures. Connection networks. Performance evaluation, simulation, and analytic models. Performance enhancement through branch prediction and out-of-order execution. Also offered for graduate-level credit as CS 538 and may be taken only once for credit. Prerequisite: CS 333.	
Fall 2016	м	cs	445	Machine Learning	4	Provides a broad introduction to techniques for building computer systems that learn from experience; conceptual grounding and practical experience with several learning systems; and grounding for advanced study in statistical learning methods, and for work with adaptive technologies used in speech and image processing, robotic planning and control, diagnostic systems, complex system modeling, and iterative optimization. Students gain practical experience implementing and evaluating systems applied to pattern recognition, prediction, and optimization problems. Also offered for graduate-level credit as CS 545 and may be taken only once for credit. Prerequisites: Mth 261 or Mth 343; Stat 451; and CS 202.	Prerequisites
Fall 2016	M	cs	454	Software Engineering	4	Current methodologies for the development of large, industrial strength software systems. Topics include requirements, specification, design, implementation, testing, project management and cost estimation, formal methods, and software process improvement. Also offered for graduate-level credit as CS 554 and may be taken only once for credit. Prerequisites: CS 300 and CS 320.	Prerequisites
Fall 2016	М	cs	469	Software Engineering Capstone I	3	Emphasizes teamwork on a substantial project that will be developed for a real customer. The course integrates the knowledge and skills from the rest of the CS curriculum. This course creates an obligation for participation for two consecutive quarters. This is the first course in a sequence of two CS 469, CS 470 and must be taken in sequence. Offered as P/NP only. Prerequisites: CS 311, CS 320,CS 333, CS 350 and at least one programming intensive course.	Title, description, prerequisite
Fall 2016	М	cs	470	Software Engineering Capstone II	3	Emphasizes teamwork on a substantial project that will be developed for a real customer. The course integrates the knowledge and skills from the rest of the CS curriculum. This course creates an obligation for participation for two consecutive quarters. This is the second course in a sequence of two CS 469, CS 470 and must be taken in sequence. Offered as P/NP only. Prerequisite: CS 469.	Title, description, prerequisite

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Fall 2016	N	cs	490	Introduction to Multimedia Computing and Networking	4	Introductory course in multimedia computing and networking intended for senior undergraduate or graduate level students. The objective of this course is to introduce many of the fundamental concepts involved with handling multimedia data and applications. The course will cover (i) basic representation and compression of multimedia data types including H.261, JPEG, and MPEG, (ii) techniques to support multimedia quality-of-service in computing and networked systems, and (iii) networked streaming media techniques such as buffering and adaptation. Also offered for graduate level credit as CS 590 and may be taken only once for credit. Prerequisite: CS 333 or instructor's permission.	
						In-depth study of current and historical issues in the design, implementation, and application of programming languages. Topics range from basic to advanced. Areas include syntax, semantics, scoping, typing, abstraction, exceptions, and concurrency. Computational paradigms such as functional, logic, and/or object oriented are analyzed. Several "recent" programming languages used. Also offered as CS 658 and may be	
Fall 2016	M	CS	558	Programming Languages	3	taken only once for credit. Prerequisite: CS 320. Graduate seminar on machine learning. Students will read and discuss recent papers in the machine learning literature. This one-credit course will be offered each term, and students may take it multiple times. Prerequisite: CS 445 or CS 545 or permission of	Prerequisite
Fall 2016	N	cs	570	Machine Learning	1	instructor.	
Fall 2016	М	cs	577	Modern Language Processors	3	An advanced course on compiler construction for modern programming languages, such as object-oriented or functional languages. Topics include type-checking, executable intermediate representations, interpretation and virtual machines, code generation for modern architectures, memory management and garbage collection, and optimization. Also offered as CS 677 and may be taken only once for credit. Prerequisite: CS 421.	Prerequisite
Fall 2016	М	cs	579	Formal Verification of Hardware/Software Systems	3	Introduction to the formal verification of functional correctness of hardware and software systems. Topics to be covered include: formal logics for system verification (first-order logic, higher order logic, temporal logic), formal specifications, theorem proving systems, circuit verification, microprocessor verification, and system software verification. Prerequisite: CS 333.	Prerequisite
Fall 2016	N	cs	590	Introduction to Multimedia Computing and Networking	4	Introductory course in multimedia computing and networking intended for senior undergraduate or graduate level students. The objective of this course is to introduce many of the fundamental concepts involved with handling multimedia data and applications. The course will cover (i) basic representation and compression of multimedia data types including H.261, JPEG, and MPEG, (ii) techniques to support multimedia quality-of-service in computing and networked systems, and (iii) networked streaming media techniques such as buffering and adaptation. Also offered for undergraduate-level credit as CS 490 and may be taken only once for credit. Prerequisite: CS 333 or instructor's permission.	
Fall 2016	М	cs	658	Programming Languages	3	In-depth study of current and historical issues in the design, implementation, and application of programming languages. Topics range from basic to advanced. Areas include syntax, semantics, scoping, typing, abstraction, exceptions, and concurrency. Computational paradigms such as functional, logic, and/or object oriented are analyzed. Several "recent" programming languages used. Also offered as CS 558 and may be taken only once for credit. Prerequisite: CS 320.	Prerequisite
Fall 2016	М	cs	677	Modern Language Processors	3	An advanced course on compiler construction for modern programming languages, such as object-oriented or functional languages. Topics include type-checking, executable intermediate representations, interpretation and virtual machines, code generation for modern architectures, memory management and garbage collection, and optimization. Also offered as CS 577 and may be taken only once for credit. Prerequisite: CS 421.	Prerequisite
E-II 0040	N.	D	205	Dence Tenice	0	Intermediate Dance techniques in selected topics, for example, Tap, Musical Theater,	
Fall 2016	N N	D Ec	415	Dance Topics Microeconomic Theory with Calculus	4	Hip Hop, African etc. Prerequisite: D 195. Mathematical analysis of consumers, firms and markets. Uncertainty, Game Theory, Partial Equilibrium Analysis, General Equilibrium Analysis and Welfare. Economics majors take either Ec 311 or Ec 415. Ec 415 cannot be used as an elective in the economics major. Prerequisite: Ec 201 and Ec 380 or Mth 251.	

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Fall 2016	м	ECE	101	Exploring Electrical Engineering	4	Freshman introductory course for students interested in electrical engineering. Students learn the design process, problem-solving, teamwork and presentation skills through completion of a hands-on project. Lab activities familiarize students with basic equipment and components. Speakers present an overview of different fields and caree opportunities in electrical engineering. Weekly lab. Prerequisite: Mth 112 with a grade of C or better or passing at the necessary level on the mathematics placement test (see PSU Math Department webpage at pdx.edu/math for information).	r
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Fall 2016	M	ECE	102	Engineering Computation	4	Applying the principles of engineering analysis. Presenting technical content. Utilizing engineering software and writing scripts. Controlling external hardware via programming. Weekly lab. Prerequisite: ECE 101 or equivalent. Mth 112 with a grade of C or better or passing at the necessary level on the mathematics placement test (see PSU Math Department webpage at pdx.edu/math for information).	Description, lecture hours, lab hours, prerequisties
Fall 2010	IVI	LOL	102	Engineering Computation	7	Second course in the digital and microprocessor sequence. Covers shift registers,	nours, prerequisites
Fall 2016	N	ECE	172	Digital Systems		synchronous state machines, programmable logic devices, memories, and simple arithmetic circuits; introduction to timing analysis, design for test techniques; weekly laboratory.	
Fall 2010	IN	ECE	172	Digital Systems	4	laboratory.	
Fall 2016	D	ECE	271	Digital Systems	4		
			244			An overview of computer architecture and programming from a hardware viewpoint. Topics covered include: digital logic; arithmetic operations; pipelining; CISC/RISC; memory hierarchy; virtual memory; input/output techniques; computer system components. This course may not be used towards degree requirements for an electrical engineering or a computer engineering baccalaureate degree. Prerequisite:	Description account to
Fall 2016	М	ECE	341	Introduction to Computer Hardware	4	CS 201. Introduces the students to the Verilog Hardware Description Language and describes its	Description, prerequisite
Fall 2016	М	ECE	351	Hardware Description Languages and Prototyping	4	role in the electronic design automation environment. Students learn how to prototype digital designs using FPGAs. Prerequisite: ECE 172.	Prerequisite
Fall 2016	м	ECE	371	Microprocessors	4	Microprocessor instruction set architecture of a 32-bit microprocessor, structured development of assembly language programs, interfacing assembly language and highlevel language programs, interrupt procedures, handshake data transfer, and interfacing with simple digital devices. Introductions to microcomputer memory systems, virtual memory, and overview of microprocessor evolution. Course includes two software/hardware development projects. Prerequisites: ECE 103 or CS 162, ECE 172.	
Fall 2016	м	ECE	412	Senior Project Development I	3	Project teams apply structured design methodology from ECE 411 to original projects with assistance of faculty and industrial/community advisers and after initial research, prepare written and oral project proposals. Students keep logs of their design work and submit weekly progress reports. Groups periodically give oral progress reports. Prerequisite: ECE 411, ME 491, or UnSt 421 (Industry Design Processes), Wr 227 or Wr 327.	Description, credit hours
						Concludes development of design projects started in ECE 412. Students maintain logs of their individual work and submit weekly progress reports. Each group prepares final written and oral reports for the project sponsor. Each group creates a poster and	
Fall 2016	M	ECE	413	Senior Project Development II	3	participates in the poster session at the end of the quarter.	Description, credit hours
						Students in electrical and computer engineering are introduced to the analysis and design of digital integrated circuits. A design project is an integral part of this course. Also offered for graduate-level credit as ECE 525 and may be taken only once for credit	
Fall 2016	М	ECE	425	Digital Integrated Circuit Design I	4	Prerequisite: ECE 321, Stat 351.	Prerequisites
Fall 2016	D	ECE	436	Applications in Electromagnetics, Optics and Acoustics	4		
Fall 2016	м	ECE	451	Control Systems Design I	4	State space description of linear systems. Controllability and observability. Controller and observer design by pole placement. Optimal control, linear quadratic regulator, linear quadratic estimator (Kalman filter), linear quadratic Gaussian with loop transfer recovery design procedures. Also offered for graduate-level credit as ECE 551 and may be taken only once for credit. Prerequisite: ECE 311, Mth 261 or Mth 343.	Desription, prerquisite

Fall 2016	М	ECE	457	Engineering Data Analysis and Modeling	Introduces statistical learning theory and practical methods of extracting information from data. Covers time-proven methods of statistical hypothesis testing, linear modeling, univariate smoothing, density estimation, nonlinear modeling, and multivariate optimization. Also offered for graduate-level credit as ECE 557 and may be taken only once for credit. Prerequisite: Mth 343 and Stat 351.	Description, prerquisite
Fall 2016	D	ECE	538	Statistical Signal Processing I: Nonparametric Estimation	4	
Fall 2016	D		539	Statistical Signal Processing II: Nonparametric Estimation		
Fall 2010	D	ECE	555	Statistical Signal Processing II. Nonparametric Estimation	State space description of linear systems. Controllability and observability. Controller	
Fall 2016	м	ECE	551	Control Systems Design I	and observer design by pole placement. Optimal control, linear quadratic regulator, linear quadratic estimator (Kalman filter), linear quadratic Gaussian with loop transfer recovery design procedures. Also offered for undergraduate-level credit as ECE 451 and may be taken only once for credit.	Desription, prerquisite
					Introduces statistical learning theory and practical methods of extracting information from data. Covers time-proven methods of statistical hypothesis testing, linear modeling, univariate smoothing, density estimation, nonlinear modeling, and multivariate optimization. Also offered for undergraduate-level credit as ECE 457 and may be taken	
Fall 2016	M	ECE	557	Engineering Data Analysis and Modeling	4 only once for credit.	Description, prerquisite
Fall 2016	D D	ECE	565 566	Signals and Noise Digital Signal Processing	4	
Fall 2016	D	ECE	000	Digital Signal Processing	4	
Fall 2016	N	ECE	593	Fundamentals of Pre-Silicon Validation	Introduction to theory, strategy, and methods to validate functionality of digital integrated circuit using simulation based techniques. Topics include complete validation flow, validation environment, stimulus, checking, and coverage. Familiarity with computer architecture and System Verilog is required. A design project is an integral part of this course. Prerequisite: ECE 351 or equivalent, ECE 571 or permission of instructor.	
Fall 2016	N	ECE	595	Emulation and Functional Specification Verification	Introduction to theory and techniques to verify digital circuit designs with emphasis on non-simulation methods. Topics include hardware emulation, formal verification, and abstract system specification. Familiarity with computer architecture and System Verilog is required. A design verification project is an integral part of this course. Prerequisite: ECE 351 or equivalent, ECE 571 or permission of instructor.	
Fall 2016	N	ECE	597	Post-Silicon Electrical Validation	Methods, tools, and processes used to validate electrical concerns of modern electronic designs, including silicon, circuit boards, and communication interfaces. Includes validation of design specifications and manufacturing processes. Hardware and software tools. Special emphasis to complex microprocessor based systems, though material applicable to any electronic system. Prerequisite: graduate standing in ECE or permission of instructor.	
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Fall 2016	D	ECE	638	Statistical Signal Processing I: Nonparametric Estimation	4	
Fall 2016	D	ECE	639	Statistical Signal Processing II: Nonparametric Estimation	4	
Fall 2016	D	ECE	665	Signals and Noise	4	
Fall 2016	D	ECE	666	Digital Signal Processing	4	
Fall 2016	N	EE	517	Instrumentation and Sensing	Introduction to instrumentation and sensing focused on low-cost, low-power short and long range wireless sensing and monitoring techniques. Topics include small-signal electronics for interconnecting deployable sensors to analog and digital signal processing hardware, system noise floor and dynamic range, and practical implementation of wireless systems with long battery life. Prerequisite: Graduate standing or permission of instructor.	
Fall 2016	N	EE	520	Random Processes	Review of probability, random variables, and expectation followed by a study of the principles and properties of random sequences and random processes. Topics include random vectors, fundamentals of estimation, modeling random sequences with linear systems, stationarity, Markov random sequences, and common random process models. Prerequisite: Stat 351, graduate standing or permission of instructor.	

						Discrete time signals and systems, z-transform, sampling of continuous-time signals,	
			==.			transform analysis of linear time-invariant systems, structures for discrete-time systems.	
Fall 2016	N	EE	521	Discrete Time Processing I	4	Prerequisite: EE 520.	
E-II 2040	NI.		E22	Disercts Time Processing II		Filter design, discrete Fourier transform, faster Fourier transform, Fourier analysis of	
Fall 2016	N	EE	522	Discrete Time Processing II	4	signals. Prerequisite: EE 521.	
						Theoretical and practical approaches to estimation including both classical estimation techniques such as maximum likelihood and best linear unbiased estimation and	
						Bayesian estimation techniques. Discussion of the advantages, limitations, and	
Fall 2016	N	EE	523	Estimation and Detection I	4	tradeoffs for each of these methods. Prerequisite: EE 520.	
- uii 20 10	.,					Theoretical and practical approaches to detection algorithms. Hypothesis testing,	
						composite hypothesis testing, non-Gaussian noise, model change detection. Many	
						examples with on real-world signal processing applications, including state-of-the-art	
						speech and communications technology as well as traditional sonar/radar systems.	
Fall 2016	N	EE	524	Estimation and Detection II	4	Prerequisite: EE 523.	
						Unified introduction to theory, implementation, and applications of statistical signal	
						processing methods. Focus on random signal modeling, characterization of stochastic	
						signals and systems, and nonparametric spectral estimation. Designed to give a solid	
Fall 2016	N	EE	525	Statistical Signal Processing I: Spectral Estimation	4	foundation in the underlying theory balanced with discussion of practical advantages and limitations of nonparametric spectral estimation methods.	
1 411 2010	IN		020	otational orginal i rocessing i. Opecital Estimation	+		
						Unified introduction to the theory, implementation, and application of statistical signal processing methods. Focus on optimum linear filters, least square filters, adaptive	
						filters, the Kalman filter, signal modeling, and parametric spectral estimation. Designed	
				Statistical Signal Processing II: Linear Estimatin and		to give a solid foundation in the underlying theory balanced with examples of practical	
Fall 2016	N	EE	526	Adaptive Filters	4	applications and limitations.	
						Focus on various critical approaches to comics, exploring interdisciplinary theories and	
						methods and applying these theories to primary texts. Also offered for graduate-level	
Fall 2016	N	Eng	496	Comics Theory	4	credit as Eng 596 and may be taken only once for credit.	
						Focus on various critical approaches to comics, exploring interdisciplinary theories and	
Fall 2016	N	Eng	596	Comics Theory	4	methods and applying these theories to primary texts. Also offered for undergraduate- level credit as Eng 496 and may be taken only once for credit.	
1 all 2010	IN .	Ling	000	Connect Medity	7	level orealt as Elig 400 and may be taken only once for oreal.	
						Introduction to the structure and function of terrestrial, aquatic, and atmospheric	
						systems, including the human actions that affect them. Includes a lab section that	
						introduces basic quantitative techniques for collecting and analyzing data from	
						environmental systems; 2 lecture periods, one 3-hour lab. Prerequisites: Math 111 (may	
						be taken concurrently; if you take ALEKS math placement exam and receive a score of	description, prerequisites,
Fall 2016	M	ESM	220	Introduction to Environmental Systems	4	60 or above, email the instructor to request this pre-requisite be waived).	repeatability
						Environmental problem solving, sampling, design for quantitative sampling, and	
						measurement. Prerequisites: ESM 220 or ESM 101 & ESM 102; Math 111 (instructor	
Fall 2016	М	ESM	221	Applied Environmental Studies: Problem Solving	4	will waive this prerequisite with an ALEKS score of >59); Stat 243 (may be taken concurrently).	Description, prerequisites
Fall 2010	IVI	ESIVI	221	Applied Environmental olddies. I Toblem Golving	-		Description, prerequisites
						Provides experience with environmental sampling techniques and the quantitative analysis of contaminants in water, soil and air. Explore the chemical and physical	
						principles underlying the sources, transformation and fate of contaminants in the	
						environment. One one-hour lecture and two three-hour labs per week. Prerequisites:	
Fall 2016	N	ESM	315	Environmental Sampling and Contaminant Analysis	4	ESM 230 and ESM 231.	
						Structure and function of environmental physical systems such as mass and heat	
						transport in lakes, rivers, oceans and atmosphere, climate and climate forcing, and	
						global circulation. Co-requisite: ESM 323. Expected preparation: Mth 241 or Mth 251,	
E-II 0010		F01/	320	Environmental Systems I		and four credits each in biology, chemistry, and physics or geology. Co-requisite: ESM 323.	Title description as requisits
Fall 2016	M	ESM	320	Environmental Systems I	4		Title, description, co-requisite
						Introduction to the structure and function of environmental systems with an emphasis on ecological processes and human impacts. Co-requisite: ESM 324. Prerequisite: ESM	
Fall 2016	М	ESM	321	Environmental Systems II	4	320, ESM 323.	Prerequisites
	1	251		•	1	Overview of risk assessment applied to environmental problems, including the impact	·
						assessment process, application of cost-benefit analysis, hazard identification, risk	
						characterization, risk assessment, and risk management. Co-requisite: ESM 325.	
Fall 2016	М	ESM	322	Environmental Risk Assessment	4	Prerequisite: ESM 320, ESM 321, ESM 323, ESM 324.	Prerequisitres, co-requisite

Fall 2016	N	ESM	343	Environmental Problem Solving: Restoring EcosystemDamage from Human Impacts	4	Inquiry based course that addresses many problems that can be addressed through environmental restoration. Analysis of potential solutions based on ecological principles and management efficacy. Projects will address site evaluation, tests for effectiveness, and design considerations. Corequisite: ESM 343L. Prerequisite: Sci 341U and Sci 342U.	
Fall 2016	N	ESM	415	Road Ecology	4	Environmental impacts of roads and mitigation. Issues associated with road system construction, maintenance, and operation. Projects on the ecological effects of roads will bring real-world perspectives to the class, helping students understand current problems and research needs. Also offered for graduate-level credit as ESM 515 and may be taken only once for credit. Prerequisite: any undergraduate environmental science course.	
Fall 2016	N	ESM	417	Applied Watershed Restoration	4	Fundamentals of applied watershed/stream restoration: hydrologic, hydraulic, geomorphic, and ecological principles and tools applicable to the assessment of watershed and reach-scale processes and evaluation of stream channel condition. Emphasis on the inter-related nature of physical processes and aquatic and riparian ecology at both the watershed and reach-scale. Also offered for graduate-level credit as ESM 517 and may be taken only once for credit. Prerequisite: ESM 416.	
Fall 2016	N	ESM	474	Fish Ecology and Conservation	4	This course provides a multidisciplinary focus on major ecological issues related to fish conservation, with a strong emphasis on grounding ecological concepts in real-life case studies. The course incorporates lectures and paper discussions related to fish conservation issues in the Pacific Northwest and beyond. Also offered for graduate-level credit as ESM 574 and may be taken only once for credit. Prerequisite: ESM 221.	
Fall 2016	N	ESM	493	Advanced Environmental Science Lab and Field Methods	2	Trains seniors and graduate students in skills that can be used in field and laboratory research. The specific application and topics will rotate from term to term allowing students to learn skills necessary to their own research but also to learn methods employed by other research groups in ESM. Also offered for graduate-level credit as ESM 593 and may be taken onlhy once for credit. Prerequisite: Senior or graduate standing.	
Fall 2016	N	ESM	515	Road Ecology	4	Environmental impacts of roads and mitigation. Issues associated with road system construction, maintenance, and operation. Projects on the ecological effects of roads will bring real-world perspectives to the class, helping students understand current problems and research needs. Also offered for undergraduate-level credit as ESM 415 and may be taken only once for credit.	
Fall 2016	N		517	Applied Watershed Restoration	4	Fundamentals of applied watershed/stream restoration: hydrologic, hydraulic, geomorphic, and ecological principles and tools applicable to the assessment of watershed and reach-scale processes and evaluation of stream channel condition. Emphasis on the inter-related nature of physical processes and aquatic and riparian ecology at both the watershed and reach-scale. Also offered for undergraduate-level credit as ESM 417 and may be taken only once for credit.	
Fall 2016	М	ESM	570	Methods for Informal Environmental Education	4		Title
Fall 2016	N	ESM	574	Fish Ecology and Conservation	4	This course provides a multidisciplinary focus on major ecological issues related to fish conservation, with a strong emphasis on grounding ecological concepts in real-life case studies. The course incorporates lectures and paper discussions related to fish conservation issues in the Pacific Northwest and beyond. Also offered for undergraduate-level credit as ESM 474 and may be taken only once for credit.	
Fall 2016	N	ESM	593	Advanced Environmental Science Lab and Field Methods	: 2	Trains seniors and graduate students in skills that can be used in field and laboratory research. The specific application and topics will rotate from term to term allowing students to learn skills necessary to their own research but also to learn methods employed by other research groups in ESM. Also offered for undergraduate-level credit as ESM 493 and may be taken onlhy once for credit. Prerequisite: Senior or graduate standing.	

Fall 2016	N	ETM	347U	Introduction to Product Design	4	This course is geared to students interested in understanding products and their roles in our culture and lives, and experiencing some of what is involved in their design and production. Course will reflect a multidisciplinary approach and will enhance students' teamwork experience, communication skills, and exposure to the various disciplines. Expected preparation: Unst 222 (SINQ) before or concurrently.	
Fall 2016	N	ЕТМ	356U	Introduction to Human-Centered Design	4	HCD is an approach that puts human needs, capabilities, and behaviors first, then designs to accommodate them. This course will build on the principles of Design Thinking to further students' knowledge and hands-on practice applied to the creation of products and services that enhance human experiences. Expected preparation: Unst 222 (SINQ) before or concurrently.	
Fall 2016	М	ЕТМ	530	Decision Making	4	Decision and value theory concepts are applied to technical and management decisions under uncertainty. Multi-criteria decisions are analyzed. Subjective, judgmental values are quantified for expert decisions and conflict resolution in strategic decisions involving technological alternatives. Hierarchical decision modeling approach is introduced. Individual and aggregate decisions are measured. Decision discrepancies and group disagreements are evaluated. Case studies are included in the course. Also offered as ETM 630 and may be taken only once for credit.	Prerequisite
Fall 2016	M	ETM	545	Project Management	4	Critical issues in the management of engineering and high technology projects; analysis of time, cost, performance parameters from the organizational, people, and resource perspectives; project planning evaluation and selection, including project selection models; project and matrix organizations; project teams; scheduling and termination of projects. Case discussions and term project are included in the course. Also offered as ETM 645 and may be taken only once for credit. Prerequisite: ETM 520 or ETM 620 or consent of instructor.	Prerequisite
Fall 2016	М	ETM	630	Decision Making	4	Decision and value theory concepts are applied to technical and management decisions under uncertainty. Multi-criteria decisions are analyzed. Subjective, judgmental values are quantified for expert decisions and conflict resolution in strategic decisions involving technological alternatives. Hierarchical decision modeling approach is introduced. Individual and aggregate decisions are measured. Decision discrepancies and group disagreements are evaluated. Case studies are included in the course. Also offered as ETM 530 and may be taken only once for credit.	
Fall 2016	М	ETM	645	Project Management	4	Critical issues in the management of engineering and high technology projects; analysis of time, cost, performance parameters from the organizational, people, and resource perspectives; project planning evaluation and selection, including project selection models; project and matrix organizations; project teams; scheduling and termination of projects. Case discussions and term project are included in the course. Also offered as ETM 545 and may be taken only once for credit. Prerequisite: ETM 520 or ETM 620 or consent of instructor.	Prerequisite
Fall 2016	D	Film	135	Classic Movies	4		
Fall 2016	D	Film	365	Classic Movies	4		
Fall 2016	м	Film	384	Topics in American Cinema and Culture	4	Examines topics within American film/culture, including studies of specific industry practices, artistic movements, and historical moments in American culture and cinema history.	Title, description
Fall 2016	D	Film	385	American Cinema and Culture II	4		
Fall 2016	D	Fin	511	Economics and Sustainability of the Firm I	2		Change course number to Fin 516.
Fall 2016	D	Fin	512	Economics and Sustainability of the Firm II	2		Change course number to Fin 515.
Fall 2016	M	Fin	513	Financial Mangement	4	Examines financial concepts and problem solving skills required to evaluate whether managerial decisions add value to the firm. Students will develop an understanding of financial implications of business decisions and a framework with which to evaluate their decisions. Ethical standards and long term value creation are integrated throughout the course. Prerequisite: Actg 511.	
Fall 2016	N	Fin	515	Economics and Sustainability of the Firm	2	Introduction to the principle concepts behind managerial economics, with an emphasis on the economics that lead to sustainable value creation for projects, firms and nations. The focus is on microeconomics, or how individual- and firm-level decision-making can create (or destroy) value.	Change course number from Fin 511.

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						Introduction to key concepts of macroeconomics, including monetary and fiscal policies	
						and the relationships between inflation, interest and unemployment rates. Building from economic theory fundamentals, the course also examines how economics is linked to	
						ecosystems and the roles of business and government in fostering economic value	
Fall 2016	N	Fin	516	Managerial Macroeconomics	2	creation and ecosystem stewardship.	
						Survey of the role of culture and corporate governance in maximizing the value of a	
						business. How corporate boards are led, focusing on the role of the director, shareholder rights, executive compensation, and the challenge of balancing the needs	
Fall 2016	N	Fin	517	Corporate Governance	2	of shareholders, managers, and other stakeholders.	
						Course provides an opportunity to apply business knowledge to a comprehensive	
						finance problem. Student teams will research, develop an analysis and make	
						recommendations to professional / faculty panel. The type of project will vary but topics	
Fall 2016	N	Fin	525	Finance Capstone Project	2	may include valuation, risk management, capital budgeting or portfolio management. Prerequisites: Fin 513 or Fin 551.	
F 411 20 10	IN	F III	323	Tillance Capstone i Toject	2	r rerequisites. Fin 515 of Fin 551.	
						Introduction to the study of French literature, its forms, genres, techniques, and themes,	
						and to French literary criticism. Focus is on the practice of writing literary commentary,	
= "		_	0.40	E 1 11 15 117 01 F		analysis and criticism in French. Recommended prior to or concurrently with Fr 341, Fr	
Fall 2016	М	Fr	340	Fundamentals of French Literary Studies	4	342, or Fr 343. Expected preparation: Fr 203; Fr 301 or 302 strongly recommended.	Description
						French literature from the Middle Ages to the present. Poetry, theater, and prose readings from representative authors. Fr 341: medieval and Renaissance; Fr 342: 17th	
						and 18th centuries; Fr 343: 19th and 20th. This is the first course in a sequence of	
						three: Fr 341U, Fr 342U, and Fr 343U. Expected preparation: Fr 203; Fr 301 or Fr 302	
E 0040		_	341U	later direction to Forest Literature		strongly recommended. Fr 340 strongly recommended concurrently or prior to	D
Fall 2016	М	Fr	3410	Introduction to French Literature	4	enrollment in Fr 341U, Fr 342U, or Fr 343U.	Prerequisite
						French literature from the Middle Ages to the present. Poetry, theater, and prose readings from representative authors. Fr 341: medieval and Renaissance: Fr 342: 17th	
						and 18th centuries; Fr 343: 19th and 20th. This is the second course in a sequence of	
						three: Fr 341U, Fr 342U, and Fr 343U. Expected preparation: Fr 203; Fr 301 or Fr 302	
						strongly recommended. Fr 340 strongly recommended concurrently or prior to	
Fall 2016	M	Fr	342U	Introduction to French Literature	4	enrollment in Fr 341U, Fr 342U, of Fr 343U.	Prerequisite
						French literature from the Middle Ages to the present. Poetry, theater, and prose readings from representative authors. Fr 341: medieval and Renaissance; Fr 342: 17th	
						and 18th centuries; Fr 343: 19th and 20th. This is the second course in a sequence of	
						three: Fr 341U, Fr 342U, and Fr 343U. Expected preparation: Fr 203; Fr 301 or Fr 302	
F 0040		_	343U	Introduction to French Literature		strongly recommended. Fr 340 strongly recommended concurrently or prior to enrollment in Fr 341U, Fr 342U, of Fr 343U.	Prerequisite
Fall 2016	М	Fr	3430	introduction to French Literature	4		Prerequisite
						In this course students study and analyze a variety of documents (audio, video, texts, etc) on various topics to better understand the intricacies of spoken and written French.	
						Great importance will be given to stylistic and to creative and rigorous application of	
						grammatical principles in different situations and genres. Also offered for graduate-level	
F 0040		_	411	Advanced French		credit as Fr 511 and may be taken only once for credit. Prerequisite: 8 credits of 300-	C di-tii-ti
Fall 2016	М	Fr	411	Advanced French	4	level French.	Course description, prerequisties.
						Stylistic and grammatical elements of several written genres will be analyzed in terms of	
						why certain linguistic devices are used in particular genres and what effects they have	
						on textual meaning. After analyzing and gaining familiarity with these features, students	
F 0040	м	Fr	412	Creative Writing in French		will create their own French texts. Also offered for graduate-level credit as Fr 512 and may be taken only once for credit. Prerequisite: 8 credits of 300-level French.	Course title, description, prerequisites.
Fall 2016	IVI	FI	412	Creative writing in French	4	may be taken only once for credit. Prerequisite, o credits of 300-level French.	prerequisites.
						In this course students study and analyze a variety of documents (audio, video, texts,	
						etc) on various topics to better understand the intricacies of spoken and written French.	
						Great importance will be given to stylistic and to creative and rigorous application of	
Fall 2016	M	Fr	511	Advanced French	4	grammatical principles in different situations and genres. Also offered for undergraduate- level credit as Fr 411 and may be taken only once for credit. French.	Course description.
rall 2016	IVI	Fr	311	Auvanceu Fielicii	4		Course description.
						Stylistic and grammatical elements of several written genres will be analyzed in terms of why certain linguistic devices are used in particular genres and what effects they have	
						on textual meaning. After analyzing and gaining familiarity with these features, students	
L						will create their own French texts. Also offered for undergraduate-level credit as Fr 412	
Fall 2016	M	Fr	512	Creative Writing in French	4	and may be taken only once for credit.	Course title, description.

Fall 2016	N	Geog	412	Global Climate Change Science and Socio-Environmenta Impact Assessment	Examination of the physical processes of climate change at multiple scales. Evaluation of the potential impacts of climate change on ecosystem, water, human health in urban and non-urban environments. Understanding of integrated models for climate change impact assessment. Also offered for graduate-level credit as Geog 512 and may be taken only once for credit.
Fall 2016	N	Geog	512	Global Climate Change Science and Socio-Environmenta Impact Assessment	Examination of the physical processes of climate change at multiple scales. Evaluation of the potential impacts of climate change on ecosystem, water, human health in urban and non-urban environments. Understanding of integrated models for climate change impact assessment. Also offered for undergraduate-level credit as Geog 412 and may be taken only once for credit.
Fall 2016	N	Ger	484	German Stylistics	A study of the stylistic aspects of fictional and nonfictional writings within the context of the cultural and philosophical history of modern Germany. Also offered for graduate-level credit as Ger 584 and may be taken only once for credit.
					This interdisciplinary and multidisciplinary graduate course will provide an overview of critical and decolonizing research methodologies focused on relations of race, gender, nations, and sexuality, with attention to other dimensions of difference and power.
Fall 2016	N	GRN	520	Critical and Decolonizing Research Methodologies	4 Emphasis will be on novel approaches to research as an avenue for social justice.
E # 0040		ODN	520	Cosial hadis a Radiona or	Focus on contemporary radical pedagogical theories and practices. Students will analyze, experience and develop their own social justice pedagogies. Students will examine radical theories of education and co-create practical strategies with the
Fall 2016	N	GRN	530	Social Justice Pediagogy	4 intention of building towards social transformation.
Fall 2016	N	GRN	550	Seminar in Gender,Race, and Nations	In-depth study of varying topics related to gender, race, and nations from an interdisciplinary and intersectional approach. Focus is on rethinking and challenging foundational western, heteropatriarchal, colonialist, heteronormative, and white supremacist ways of understanding the topical focus related to the reproduction and production of social relations, domination and resistance.
Fall 2016	N	Heb	344	Israel through Graphic Novels	Discusses central themes in contemporary Israel as they are represented in Israeli graphic novels and graphic novels written about Israel in the 2000s and 2010s.
Fall 2016	N	Heb	361	Israel through Film	Discusses the history and culture of Israel as it is represented in Israeli cinema from 1931 up through the 2010s.
1 all 2010	IN .	TICD	001	israer unought min	
Fall 2016	N	HSMP	32011	Health Ethics	Explores the theoretical, historical, and institutional contexts of health ethics across populations. Students will learn and apply practical skills to deconstruct and analyze ethical challenges across a continuum of health-related topics from the classical cases through contemporary debates regarding our global social health, social justice, and related issues.
Faii 2010	IN	TIOWE	0200	Fieduri Etilos	4 Ionaca Issues.
Fall 2016	N	HSMP	541	Organizational Behavior in Health Services	Provides an overview of organizational theory and behavior in health services organizations. Emphasis is on developing an understanding of the factors and forces which influence the organization, behavior, and operations of health services delivery organizations through consideration of organizations, their environments, and the roles of individuals working in management. Also offered as HSMP 641 and may be taken only once for credit. Recommended corequisite: HSMP 574.
					This course provides students with concrete tools and knowledge about marketing concepts and processes in health services and develops competencies for application of marketing principles for a range of health services organizations. Concepts of
Fall 2016	N	HSMP	542	Marketing in Health Srvices Organizations	messaging are also addressed as a component of the marketing strategy.
Fall 2016	N	HSMP	543	Culture and Health Care	The course is designed to provide an examination of health delivery and outcomes and the influence of culture. Using readings in conjunction with interactive learning, students consider various cultures and their interactions with the health care system. Knowledge of the tools, techniques, and applications of cultural assessment and cultural competency will be achieved. This course is open to admitted students in the graduate programs in the Division of Public Administration and other appropriate graduate programs. This is the same course as PAH 543 and may be taken only once for credit.

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Fall 2016	N	НЅМР	544	Leadership and Governance in Health Services	Class explores principles and practices of leadership and governance in a variety of health and human services organizations. Theories of leadership and models of governance are studied, and explored through case studies of local health and human services leaders and their governance relationships. Students also conduct self-assessments of present and future leadership practice and potential. Prerequisites: PA 541, PA 571, PA 547.
Fall 2016	N	HSMP	570	Health Administration	An examination of issues related to the administration of health care systems. Topics include: changing patterns of health care, budget and financial management techniques, and political influences on health administration. This is the same course as PAH 570 and may be taken only once for credit.
Fall 2016	N	НЅМР	571	Health Policy	Centers on an investigation of the public policy process as it affects the health care field. Specific health care policies and programs are used to explore the characteristics of the health care policy process and the factors involved in the formulation, implementation, and evaluation of health care policies and programs. This is the same course as PAH 571; also offered as HSMP 671 and may be taken only once for credit. Recommended corequisite: HSMP 574.
Fall 2016	N	HSMP	572	Health Politics	This course is designed to survey the inter-workings of health care legislation. By examining the nuts and bolts of health law development, a better understanding of health policy development within the context of the political system can be realized. Health legislation is examined in terms of historical analysis and the legislative process, including the role of interest groups, the use of information in the political system, the role of bureaucracy, and the budget process. This is the same course as PAH 572 and may be taken only once for credit. Recommended corequisits: HSMP 574.
Fall 2016	N	HSMP	573	Values and Ethics in Health	This course addresses issues and questions regarding values and ethics in health, with particular attention to public health practice and health policy and management. It provides students with opportunities to consider issues in health and social services that challenge values and pose ethical issues, and assists students in addressing these issues in the context of both personal and organizational values and beliefs. Specific course content includes, but is not limited to, ethical issues such as reproductive issues, emerging diseases, product liability, pharmaceutical controls, advertising, occupational and environmental issues, and research dilemmas. Also offered as HSMP 673 and may be taken only once for credit. Prerequisite: Completion of at least 30 credits of the graduate program.
Fall 2016	N	HSMP	574	Health Systems Organization	This course introduces basic concepts and issues in the organization, financing, and delivery of health services. The emphasis is on the systemic aspects of health services production and delivery which address the health needs of populations with respect to death, disease, disability, discomfort, and dissatisfaction. Students will examine the interrelationships of system structures, subsystems, and processes, as well as their interactions with the larger social, cultural, economic and political environments in which they exist. The focus is on the United States, with international comparisons used to illustrate similarities and differences. This is the same course as PAH 574; also offered as HSMP 647 and may be taken only once for credit.
Fall 2016	N	нѕмр	575	Advanced Health Policy	Provides students focusing on health policy analysis or advocacy the opportunity to explore specific areas of health policy in-depth. Taught as a seminar with students required to select two policy areas, develop readings and questions, and lead class discussion facilitated by the instructor. Coursework emphasizes the understanding, identification and development of successful and sustainable health policy including preparation of four brief, structured policy proposals. Prerequisite: HSMP 571.
Fall 2016	N	НЅМР	576	Strategic Management of Health Care Organizations	This course provides prospective and current health care managers with the tools necessary to successfully manage their departments/organizations in a strategic manner. Course content will build upon the basic methods of strategic planning and management, with special attention paid addressing and managing the problems and challenges specific to the health care industry. Prerequisites: HSMP 541, HSMP 574; recommend corequisite: HSMP 587.

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Fall 2016	N	нѕмр	577	Health Care Law and Regulation	Course intended to be an introduction to the American legal system and the laws that affect public health and health care. Initially, course focuses on public legal relationships between governments and individuals, and proceeds to review private legal relationships between individuals or organizations. Reviews the source of laws affecting health care, the basics of constitutional law, the right to privacy, state and federal regulation of health care, and negligence in health care. Wraps up with an introduction to cutting edge health care issues such as health care fraud and abuse compliance and medical record privacy. Also offered as HSMP 677 and may be taken only once for credit. Prerequisites: HSMP 571, HSMP 574.
Fall 2016	N	HSMP	579	Continual Improvement in Health Care	Intended to introduce students to the concepts of continual improvement and illustrate applications of these concepts in health care. The basic content will be drawn from the industrial quality improvement literature; this will be elaborated through presentation and analysis of health care case studies. Students will gain an understanding of different approaches to process improvement and quality management and will be prepared to apply this knowledge in the practice setting. Prerequisites: HSMP 541, HSMP 575.
Fall 2016	IN	HOINIP	376	Continual improvement in health Care	apply this knowledge in the practice setting. Prerequisites. Hower 541, Hower 575.
Fall 2016	N	НЅМР	579	Health Informaton Technology andSystems Management	Advances in information technology are driving fundamental changes throughout health care and transforming the health care industry. Students will gain an understanding how to manage and use health information technology systems. The course will identify the various types of health care information systems, and assess the key issues confronting the management of such systems, including business needs, the relationship between organizational needs and technology capabilities, and the management and control of IT resources in a variety of health-related organizational settings. Prerequisite: HSMP 574.
Fall 2016	N	НЅМР	580	Health Services Human Resources Management	Overview of human resources within the context of health care organizations. Focus on the practical application of human resources management principles in the work setting through discussion of situations common in health care environments. Elements of the situation evaluated from the health care employee and health care manager perspectives. Examples of techniques, forms, and tools will be discussed.f Prerequisite: HSMP 574.
Fall 2016	N	нѕмр	586	Introduction to Health Economics	Focuses on defining and measuring the performance of the health care sector, defining and explaining microeconomic concepts, and evaluating various policy initiatives to improve efficiency, equity, and technological progress in health care. Specific topics include description of the health care industry, production of health, measurement of health care price changes, theory of demand for health care, theory of production and cost, measurement of inputs and outputs, cost-benefit and cost-effectiveness analysis, and structure and functioning of markets. In addition, the role of government in a private economy in dealing with market failure is discussed, especially as it relates to the goal of assuring universal access to health care. Does not require any specific preparation in economics or mathematics, although graphical presentation of economic concepts is emphasized. This is the same course as PAH 586; also offered as HSMP 686 and may be taken only once for credit. Recommended corequisite: HSMP 574.
Fall 2016	N	HSMP	587	Financial Management of Health Services	Focuses on the analysis and administration of resources in the health care field. Among the specific topics included in this course are financial statements, budgeting, cash flow, costing, capital decision making, sources of capital and operating funds, depreciation and government reimbursement schemes, and human resources planning and management. Prerequisite: HSMP 574. Recommended corequisite: HSMP 586.
Fall 2016	N	HSMP	588	Program Evaluaton and Management in Health Services	Introduces the theory and practice of program evaluation in the health services system. Includes multiple methods and uses of evaluation from the perspectives of managers, health professionals, and health services researchers, with an emphasis on the utilization of evaluation findings in program planning and management in health services. Course learning will be synthesized through a community-based learning experience involving working with a community partner to develop an evaluation framework and methodology for an existing or proposed health program.

Fall 2016	N	HSMP	589	Research Design in Health Services	Provides an introduction to traditional methods of designing and conducting health services research. It is intended that at the completion of the course students will understand multiple approaches to health services research, be able to be both participants in and consumers of the research process, and will be competent in conducting critical appraisals of the health services literature and in writing research proposals. Also offered as HSMP 689 and may be taken only once for credit. 3 Prerequisite: PHPM 525.
Fall 2016	N	НЅМР	641	Organizational Behavior in Health Services	Provides an overview of organizational theory and behavior in health services organizations. Emphasis is on developing an understanding of the factors and forces which influence the organization, behavior, and operations of health services delivery organizations through consideration of organizations, their environments, and the roles of individuals working in management. Recommended corequisite: HSMP 574. Also offered as HSMP 541 and may be taken only once for credit.
Fall 2016	N	HSMP	660	Contemporary Research in Health Systems and Policy	Doctoral seminar covering current topics in health systems and policy research providing doctoral students in the Health Systems and Policy Ph.D. program an opportunity to develop multi-disciplinary perspectives on current issues in their area of research. This course is repeatable for up to 9 credits.
Fall 2016	N	НЅМР	671	Health Policy	Centers on an investigation of the public policy process as it affects the health care field. Specific health care policies and programs are used to explore the characteristics of the health care policy process and the factors involved in the formulation, implementation, and evaluation of health care policies and programs. Also offered as PAH 571 and may be taken only once for credit. Recommended corequisite: HSMP 574.
Fall 2016	N	нѕмр	673	Values and Ethics in Health	This course addresses issues and questions regarding values and ethics in health, with particular attention to public health practice and health policy and management. It provides students with opportunities to consider issues in health and social services that challenge values and pose ethical issues, and assists students in addressing these issues in the context of both personal and organizational values and beliefs. Specific course content includes, but is not limited to, ethical issues such as reproductive issues, emerging diseases, product liability, pharmaceutical controls, advertising, occupational and environmental issues, and research dilemmas. Also offered as HSMP 573 and may be taken only once for credit. Prerequisite: Completion of at least 30 credits of the graduate program.
Fall 2016	N	НЅМР	674	Health Systems Organization	This course introduces basic concepts and issues in the organization, financing, and delivery of health services. The emphasis is on the systemic aspects of health services production and delivery which address the health needs of populations with respect to death, disease, disability, discomfort, and dissatisfaction. Students will examine the interrelationships of system structures, subsystems, and processes, as well as their interactions with the larger social, cultural, economic and political environments in which they exist. The focus is on the United States, with international comparisons used to illustrate similarities and differences. Also offered as PAH 574 and may be taken only once for credit. Also offered as HSMP 574 and may be taken only once for credit.
Fall 2016	N	HSMP	677	Health Care Law and Regulation	Course intended to be an introduction to the American legal system and the laws that affect public health and health care. Initially, course focuses on public legal relationships between governments and individuals, and proceeds to review private legal relationships between individuals or organizations. Reviews the source of laws affecting health care, the basics of constitutional law, the right to privacy, state and federal regulation of health care, and negligence in health care. Wraps up with an introduction to cutting edge health care issues such as health care fraud and abuse compliance and medical record privacy. Also offered as HSMP 577 and may be taken only once for credit. Prerequisites: HSMP 571, HSMP 574.

Fall 2016	N	HSMP	686	Introduction to Health Economics	Focuses on defining and measuring the performance of the health care sector, defining and explaining microeconomic concepts, and evaluating various policy initiatives to improve efficiency, equity, and technological progress in health care. Specific topics include description of the health care industry, production of health, measurement of health care price changes, theory of demand for health care, theory of production and cost, measurement of inputs and outputs, cost-benefit and cost-effectiveness analysis, and structure and functioning of markets. In addition, the role of government in a private economy in dealing with market failure is discussed, especially as it relates to the goal of assuring universal access to health care. Does not require any specific preparation in economics or mathematics, although graphical presentation of economic concepts is emphasized. Recommended corequisite: HSMP 574. Also offered as HSMP 586 and may be taken only once for credit.	
1 811 2010	11	TIOWII	000	Introduction to Ficular Economics		
Fall 2016	N	HSMP		Research Design in Health Services	Provides an introduction to traditional methods of designing and conducting health services research. It is intended that at the completion of the course students will understand multiple approaches to health services research, be able to be both participants in and consumers of the research process, and will be competent in conducting critical appraisals of the health services literature and in writing research proposals. Also offered as HSMP 589 and may be taken only once for credit. 3 Prerequisite: PHPM 525.	
Fall 2016	M	Hst	325	Chicano/a History, 1492-1900	4	Title
Fall 2016	M	Hst	326	Chicano/a History, 1900-Present	4	Title
Fall 2016	N	Hst	369U	Women in World History	Explores the history of women from "prehistory" to the modern era. Themes include work, marriage, empire, and slavery. Through primary and secondary sources, students will examine gender as a social construct in the human past and as a critical category of analysis in the present.	
Fall 2016	M	Hst	385	Late Imperial Middle East, 1700-1914	Survey of the social, political, economic, and cultural history of the Middle East from the 18th century till the outbreak of World War I. Coverage of key themes such as imperialism, political reform, sectarianism, constitutionalism, and revolution.	Title, description
Fall 2016	М	Hst	386	Middle East in the Twentieth Century	Overview of the Middle East since World War I. Discussion of colonialism and nationalism, emergence of mass society, economic development, birth of the Arab-Israeli conflict, Cold War, oil, and the rise of political Islam.	Title, description
Fall 2016	N	Intl	365	Digital Globalization	Explores how digital globalization has impacted all aspects of global society. Examines three main areas: digital culture and the individual; the sharing economy and innovation; and security issues, particularly questions of privacy and surveillance.	
Fall 2016	N	Intl	380U	Globalization, Repesentation and Difference in Media and Film	Culture Industries such as television, film, social/digital media, community-based media, & local press are global in reach and influence. We use international cultural artifacts to understand how globalization impacts the representation of difference & commodifization of culture.	
					Examines the role of media (traditional and new media), historical and contemporary, in the conduct of international relations and in the reporting and representations of national	
Fall 2016	N	Intl	391U 472	Media and International Relations Media and International Relations	4 and international politics and cultures.	
Fall 2016	D	Intl	472	media and international Relations	Introduction to and overview of Enterprise Resource Planning (ERP) systems, their function in business, the major modules, and data structures with an emphasis on	
Fall 2016	N	ISQA	412	Introduction to Enterprise Resource Planning Systems	4 supply chain and accounting issues. Prerequisite: BA 339.	
Fall 2016	N	ISQA	432	Craft Beverage Operations Management	An overview of the craft brewery business from grower to glass. Covers processes and associated costs for making and selling craft beverages from raw materials to production, distribution, and retail environments. Students will complete a basic business plan. Also offered for graduate-level credit as ISQA 532S and may be taken only once for credit. Prerequisite: Upper-division standing.	
Fall 2016	М	ISQA	469	Lean Management	This course covers the foundation and the basic principles of lean and lean thinking to improve an organization's performance by eliminating waste. Students will learn the concepts and the tools of Lean which include 5S, Standard work, TPM, Kanban, Poka Yoke, SMED, Value Stream Mapping. Also offered for graduate-level credit as ME 569 and may be taken only once for credit.	Title, description.

Fall 2016	М	ISQA	479	Global Supply Chain Strategy and Sustainability Management	4	Covers global supply chain topics including risk management, collaboration, strategy development and sustainability.	Title, description.
Fall 2016	N	ISQA	519	Managerial Analytics	4	Introduction to the role of "big data analytics" related to strategic decision making. Exploration of concepts fundamental to analytics programs, including data-driven decision making, interpreting and gaining insight from structured data, effective communication of strategic decisions, and managing an analytics team.	
						An overview of the craft brewery business from grower to glass. Covers processes and associated costs for making and selling craft beverages from raw materials to production, distribution, and retail environments. Students will complete a basic business plan. Also offered for undergraduate-level credit as ISQA 432 and may be	
Fall 2016	N	ISQA	532	Craft Beverage Operations Management	4	taken only once for credit. Prerequisite: Upper-division standing.	
Fall 2016	м	ISQA	569	Lean Management	4	This course covers the foundation and the basic principles of lean and lean thinking to improve an organization's performance by eliminating waste. Students will learn the concepts and the tools of Lean which include 5S, Standard work, TPM, Kanban, Poka Yoke, SMED, Value Stream Mapping. Also offered for undergraduate-level credit as ME 469 and may be taken only once for credit.	Title, description.
Fall 2016	D	It	341U	Introduction to Italian Literature	4		
Fall 2016	D	It	342	Introduction to Italian Literature	4		
Fall 2016	N	It	344U	Italian Literary and Cultural Movements	4	Thematic study of Italian and Italian-related literary movements and works within the world context, with emphases on feminism, war, dictatorship, resistance, and social practice. To be taken at any time during the third year of study. Prerequisite: It 203 or equivalent.	
Fall 2016	N	JSt	431	The Arts and the Jewish Experience	4	Examines the connection between Jewish culture and the visual, literary, and/or performing arts. Investigates the diversity of Jewish experience, the formation of Jewish identity, and the interpretation of Jewish arts through lectures, workshops with artists, and attendance of events such as films, exhibits, readings, and/or performances. Prerequisite: Upper-division standing.	
Fall 2016	м	Lib	429	Young Adult Literature	3	Analyze young adult literature (YAL) and study trends and styles in YAL. Discuss fictional and informational texts, digital, and online resources, graphic novels, and other materials featuring authors and illustrators who dominate the YAL landscape. Also offered for graduate-level credit as Lib 529 and may be taken only once for credit.	Desription
						Analyze young adult literature (YAL) and study trends and styles in YAL. Discuss fictional and informational texts, digital, and online resources, graphic novels, and other materials featuring authors and illustrators who dominate the YAL landscape. Also	
Fall 2016	M	Lib	529	Young Adult Literature	3	offered for undergraduate-level credit as Lib 429 and may be taken only once for credit.	Desription
Fall 2016	N	ME	240	Survey of Manufacturing Processes	2	Survey of manufacturing processes, including casting, forming, machining, joining, and nontraditional processes. Emphasis on process capabilities and limitations and design for manufacturability. Also includes topics in product design, material selection, and process planning. Prerequisite: ME 213.	
Fall 2016	N	ME	250	Geometric Modeling	2	Geometric modeling of parts and assemblies using a commercial solid modeling system Topics include principles of parametric geometry construction and modeling for design intent. Course covers part/assembly constructions for machine design including creation of drawings and dimensioning techniques. Other topics include sheetmetal parts modeling, standard library parts, and presentation methods.	
1 all 2010	IN	IVIE		Section in dening			
						An introduction to vibrations and system dynamics for single and multiple degree-of- freedom linear systems. The course includes: free and forced vibrations; resonance; modeling of mechanical and electrical systems; Laplace transformations; and dynamic system response in the time and frequency domains. Computer analysis and solution techniques will be utilized. Prerequisites: EAS 215, Mth 256, Mth 261, ECE 241, ME	
Fall 2016	M	ME	351	Vibrations and Systems Dynamics	4	350.	Description, prerequisites
Fall 2016	D D	ME	412L 416	Mechanical Engineering Lab Internal Combustion Engines			
Fall 2016 Fall 2016	D	ME ME	417	Gas Turbines			
Fall 2016	D	ME	418	Analysis of Powerplant Cycles	_		
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Fall 2016	N	ME	427	Phase Transformations and Kinetics in Materials	4	Designed to facilitate understanding of the thermodynamic forces driving material phase transformations and the role that strain energy and interfacial energy play in producing or modifying these forces. Also explores microstructure, a fundamental topic of study for students in material and mechanical engineering fields. Also offered for graduate-level credit as ME 527 and may be taken only once for credit. Prerequisite: Senior or graduate standing in Engineering.	
Fall 2016	N	ME	428	Scanning Electron Microscopy for Materials and Device Characterization	4	The study of the design concepts and applications of scanning electron microscopy (SEM) and spectroscopy. Topics include electron optical principles, specimen preparation, and SEM imaging and interpretation. The spectroscopy of microanalysis covers qualitative and quantitative chemical analysis of materials. The lectures and lab sessions are integrated to enhance students' learning experience. Also offered for graduate-level credit as ME 528 and may be takenon only once for credit. Prerequisite: one year of general engineering or physics or instructor approval.	
Fall 2016	N	ME	429	Transmission Electron Microscopy and Chemical Analysis of Materials	4	Introduction to the theoretical concepts and practical applications of transmission electron microscopy (TEM) and spectroscopy for materials characterization. The chemical analysis techniques include energy dispersive X-ray spectroscopy and electron energy loss spectroscopy. The lab provides hands-on experiences for students to operate the state-of-the-art TEM and the attached analytical accessories. Also offered for graduate-level credit as ME 529 and may be taken only once for credit. Prerequisite: One year of general engineering or physics.	
Fall 2016	D	ME	431	Pneumatic and Hydraulic Systems	7		
Fall 2016	D	ME	441	AdvancedFluid Mechanics	4		
Fall 2016	D	ME	442	Advanced Heat Transfer	4		
Fall 2016	D	ME	444	Combustion			
Fall 2016	м	ME	476	Materials Failure Analysis	4	Fundamental mechanisms related to failure of metal and alloys used in engineering structures. Mechanisms include: ductile and brittle fracture, fatigue, corrosion fatigue, wear, liquid erosion, stress corrosion, hydrogen-assisted cracking, elevated temperature failures, and many others. Analytical tools used to identify types of failures including: optical metalography, scanning electron microscopy, secondary ion mass spectroscopy, electron probe microanalysis, X-ray photoelectron spectroscopy, Auger electron spectroscopy, and others. Ductile, brittle, intergranular, cleavage, quasi-cleavage, and microvoid coalescence modes of fracture are discussed. Failures in weldments, brazed and soldered joints, castings, bearings, boilers, forgings, pipelines, bridge components, gears, springs, wear components, tools, and dies. Also offered for graduate-level credit as ME 576 and may be taken only once for credit.	Description, prerequisite
						Presents the methods of planning the data collection scheme in industrial experimentation. Topics to be covered are methods of statistical inference, randomization, blocking, empirical and mechanistic model building using factorial,	
Fall 2016	М	ME	488	Design of Experiments	2	fractional factorial designs, and least squares methods. Prerequisite: Stat 353.	Prerequisite.
Fall 2016	D	ME	516	Internal Combustion Engines	4		
Fall 2016	D	ME	517	Gas Turbines	4		
Fall 2016	D	ME	518	Analysis of Powerplant Cycles	4	Designed to facilitate understanding of the thermodynamic forces driving material phase transformations and the role that strain energy and interfacial energy play in producing or modifying these forces. Also explores microstructure, a fundamental topic of study for students in material and mechanical engineering fields. Also offered for undergraduate-level credit as ME 427 and may be taken only once for credit. Prerequisite: senior or	
Fall 2016	N	ME ME	527 528	Phase Transformations and Kinetics in Materials Scanning Electron Microscopy for Materials and Device Characterization	4	graduate standing in Engineering. The study of the design concepts and applications of scanning electron microscopy (SEM) and spectroscopy. Topics include electron optical principles, specimen preparation, and SEM imaging and interpretation. The spectroscopy of microanalysis covers qualitative and quantitative chemical analysis of materials. The lectures and lab sessions are integrated to enhance students' learning experience. Also offered for undergraduate-level credit as ME 428 and may be takenon only once for credit.	

Fail 2016 N ALE S20 Assigned of Materials and Electron Microscopy and Charmosal Assigned analysis bethrough enrolled engine dispersion. The design microscopy and engineering of the previous analysis bethrough enrolled enging dispersion. The design analysis and entire dispersion and engineering dispersion. The design analysis bethrough enrolled enging dispersion. The design analysis and entire dispersion and engineering dispersion. The design approach and engineering dispersion. The design approach and engineering dispersion. The design approach and engineering dispersion and engineering dispersion. The design and engineering dispersion and engineering dispersion and engineering dispersion. The design and engineering dispersion and engineeri		1		I		
Particul differential equations governing the conservation of mass, momentum, and energy of Newtonian fluids are domested in Momenta and Mark States and Integral solutions of the Native-Stakes equations are presented. Approximations and length equations are derived. Although the States of the Native-Stakes equations are presented. Approximations of the Native-Stakes equations are derived. Although the States of the Native-Stakes equations are derived. Although the States of the Native-Stakes equations are derived. Although the States of the Native-Stakes equations are derived. Although the States of the Native-Stakes equations are derived. Although the Native-Stakes equations are derived. Although the Native-Stakes equations are derived. Although the Native States of the Native-Stakes equations are derived. Although the Native States of the Native-Stakes equations are derived. Although the Native-Stakes equations are derived. The Native-Stakes equations are derived. Although the Native-Stakes equations are derived. Although the Native-Stakes equations are derived. District are devived. District ar	Fall 2016		ME			electron microscopy (TEM) and spectroscopy for materials characterization. The chemical analysis techniques include energy dispersive X-ray spectroscopy and electron energy loss spectroscopy. The lab provides hands-on experiences for students to operate the state-of-the-art TEM and the attached analytical accessories. Also
energy of Newtorian fluids are derived. Discretizations are a presented. Approximation and pages is used to smallly the governing equations. Each discretization are the presented. Approximation of the governing equations are derived. Also offered as ME 781/2016. D. NE 544. Compressable Flow 4. Page 12016. D. NE 545. Compressable	Fall 2016	D	ME	531	Pneumatic and Hydraulic Systems	4
Fall 2016 N ME 641 Advanced Fluid Mechanics 4 Advanced Fluid Mechanics 4 Advanced Fluid Mechanics 4 Advanced Fluid Mechanics 5 Advanced Fluid Mechanics 5 Advanced Fluid Mechanics 5 Advanced Fluid Mechanics 6 N M Mgmt 100 Succeed in Business School Basics: How to Get the Most out of the Fall 2016 N M Mgmt 200 SBA Managing the Innovation Process 4 Managing the Innovation Process 6 A Managing the Innovation Process 6 A Managing from across for line students of plants or source and to select a particular on the control of the students of plants or source and to select in a process selection process for large and more students of the sub-description of the students of the university my work and across in the sub-description in the control of the sub-description of the Success in the university my work and career and sub-description in the control of the sub-description of the Success of the Succ	Fall 2016	D	ME	544	Combustion	energy of Newtonian fluids are derived. Dimensional analysis is used to simplify the governing equations. Exact and integral solutions of the Navier-Stokes equations are presented. Approximations of the governing equations are derived. Also offered as ME 641 and may be taken only once for credit. Course description.
Fail 2016 N Mgmt 100 How to Succeed in Business School Fail 2016 N Mgmt 200 SBA Advanced Heat Gransfer Fail 2016 N Mgmt 200 SBA Advanced Heat Gransfer Advanced Fluid Mechanics Advanced In Business School Basics: How to Get the Most out of the Fail 2016 N Mgmt 200 SBA Managing the Innovation Process Advanced real removal in the SBA Managing the Innovation Process Advanced or SBA					·	4
structures. Mechanisms include: ductile and high frequent, failgue, corrosion fatigue, wear, liquid recibing the services corrosion, therefore from the frequent failures and many others. Analytical tools used to identify types of failures including optical metalogy, ascanning electron proble microarday in mass spectroscopy, electron proble microarday in mic	Fall 2016	D	ME	572L	Adv MP Lab	0
energy of Newtonian fluids are derived. Dimensional analysis is used to simplify the general programming equations. Exact and integral solutions of the Navier-Stokes equations are presented. Approximations of the governing equations are derived. Also offered as ME 541 and may be taken only once for credit. Advanced Fluid Mechanics 4 Advanced treatment of the principles of conductive and convective heat transfer. Analytic and numerical solutions of heat conduction problems. Laminar and turbulent convective heat transfer. Analytic and numerical solutions of heat conduction to personal frame, or provided the following of the stransfer. Analytic and numerical solutions of heat conduction to personal frame, or group work and S8A student groups designed to give students an opportunity for major exploration within the S8A. This course is designed to enhance student success in the School of Business at Portland State University. The course will focus on tools specifically designed to help students survey appropriate career and academic choices, learn more about campus resources, and focus on skills specific to success in the university environment. Experience innovation leadership via hands-on development of prototypes. Goals of this course are: to shift from the idea of resource and social compromise to a generative, innovative value creation that considers long-term goals for sustainable profitability and to train students in cross-functional innovation process for the student digital portfolio. The result is a portfolio ready for external consumption. Course content includes reflection on university learning, personal branding, theory of work and career and a personalized review of course and program goals. Co-requisite: BA 485. Prerequisite: BA 430. BA 302. BA 303. BA 311. BA 325. BA 339. BA 385.	Fall 2016	N	ME	576	Materials Failure Analysis	structures. Mechanisms include: ductile and brittle fracture, fatigue, corrosion fatigue, wear, liquid erosion, stress corrosion, hydrogen-assisted cracking, elevated temperature failures, and many others. Analytical tools used to identify types of failures including: optical metalography, scanning electron microscopy, secondary ion mass spectroscopy, electron probe microanalysis, X-ray photoelectron spectroscopy, Auger electron spectroscopy, and others. Ductile, brittle, intergranular, cleavage, quasi-cleavage, and microvoid coalescence modes of fracture are discussed. Failures in weldments, brazed and soldered joints, castings, bearings, boilers, forgings, pipelines, bridge components, gears, springs, wear components, tools, and dies. Also offered for undergraduate-level
Fall 2016 N ME 642 Advanced Heat Gransfer 4 Analytic and numerical solutions of heat conduction problems. Laminar and turbulent convective heat transfer. Also offered as ME 542 and may be taken only once for credit. Overview of campus and SBA resources, introduction to personal finance, group work and SBA student groups designed to give students an opportunity for major exploration within the SBA. This course is designed to enhance student success in the School of Business at Portland State University. The course will focus on tools specifically designed to help students survey appropriate career and academic choices, learn more about campus resources, and focus on skills specific to success in the university environment. Experience innovation leadership via hands-on development of prototypes. Goals of this course are: to shift from the idea of resource and social compromise to a generative, innovative value creation that considers long-term goals for sustainable profitability and to train students in cross-functional innovation process leadership. Fall 2016 N Mgmt 485 Career Management and Digital Portfolio 2 BA 495. Prerequisite: BA 301, BA 302, BA 311, BA 325, BA 339, and BA 385. Consideration of the various methods, techniques, and software tools of project	Fall 2016	,	ME	641	Advanced Fluid Mechanics	energy of Newtonian fluids are derived. Dimensional analysis is used to simplify the governing equations. Exact and integral solutions of the Navier-Stokes equations are presented. Approximations of the governing equations are derived. Also offered as ME
Fall 2016 N Mgmt 100 How to Succeed in Business School 1 and SBA student groups designed to give students an opportunity for major exploration within the SBA. This course is designed to enhance student success in the School of Business at Portland State University. The course will focus on tools specifically designed to help students survey appropriate career and academic choices, learn more about campus resources, and focus on skills specific to success in the university environment. Experience innovation leadership via hands-on development of prototypes. Goals of this course are: to shift from the idea of resource and social compromise to a generative, innovative value creation that considers long-term goals for sustainable profitability and to train students in cross-functional innovation process leadership. Integrates learning from across the business program and offers a redaction process for the student digital portfolio. The result is a portfolio ready for external consumption. Course content includes reflection on university learning, personal branding, theory of work and career and a personalized review of course and program goals. Co-requisite: Fall 2016 N Mgmt 485 Career Management and Digital Portfolio 2 BA 495. Prerequisite: BA 301, BA 302, BA 303, BA 311, BA 325, BA 339, and BA 385. Consideration of the various methods, techniques, and software tools of project	Fall 2016	N	ME	642	Advanced Heat Gransfer	Analytic and numerical solutions of heat conduction problems. Laminar and turbulent convective heat transfer. Also offered as ME 542 and may be taken only once for credit.
Portland State University. The course will focus on tools specifically designed to help students survey appropriate career and academic choices, learn more about campus resources, and focus on skills specific to success in the university environment. Experience innovation leadership via hands-on development of prototypes. Goals of this course are: to shift from the idea of resource and social compromise to a generative, innovative value creation that considers long-term goals for sustainable profitability and to train students in cross-functional innovation process leadership. Integrates learning from across the business program and offers a redaction process for the student digital portfolio. The result is a portfolio ready for external consumption. Course content includes reflection on university learning, personal branding, theory of work and career and a personalized review of course and program goals. Co-requisite: Eall 2016 N Mgmt 485 Career Management and Digital Portfolio 2 BA 495. Prerequisite: BA 301, BA 303, BA 311, BA 325, BA 393, and BA 385. Consideration of the various methods, techniques, and software tools of project	Fall 2016	N	Mgmt	100	How to Succeed in Business School	and SBA student groups designed to give students an opportunity for major exploration
Fall 2016 N Mgmt 398 Managing the Innovation Process 4 to shift from the idea of resource and social compromise to a generative, innovative value creation that considers long-term goals for sustainable profitability and to train students in cross-functional innovation process leadership. Integrates learning from across the business program and offers a redaction process for the student digital portfolio. The result is a portfolio ready for external consumption. Course content includes reflection on university learning, personal branding, theory of work and career and a personalized review of course and program goals. Co-requisite: BA 495. Prerequisite: BA 301, BA 302, BA 303, BA 311, BA 325, BA 339, and BA 385. Consideration of the various methods, techniques, and software tools of project	Fall 2016	N	Mgmt	200		Portland State University. The course will focus on tools specifically designed to help students survey appropriate career and academic choices, learn more about campus
the student digital portfolio. The result is a portfolio ready for external consumption. Course content includes reflection on university learning, personal branding, theory of work and career and a personalized review of course and program goals. Co-requisite: Fall 2016 N Mgmt 485 Career Management and Digital Portfolio 2 BA 495. Prerequisite: BA 301, BA 303, BA 311, BA 325, BA 339, and BA 385. Consideration of the various methods, techniques, and software tools of project	Fall 2016	N	Mgmt	398	Managing the Innovation Process	course are: to shift from the idea of resource and social compromise to a generative, innovative value creation that considers long-term goals for sustainable profitability and
Consideration of the various methods, techniques, and software tools of project	Fall 2016	N	Mgmt	485	Career Management and Digital Portfolio	the student digital portfolio. The result is a portfolio ready for external consumption. Course content includes reflection on university learning, personal branding, theory of work and career and a personalized review of course and program goals. Co-requisite:
	Fall 2016	N	Mgmt	516	Project Management	

Fall 2016	N	Mgmt	517	Negotiations for Managers	2	Designed to provide a competitive advantage in negotiation in the context of a work environment where positive on-going relationships are essential. It explores the major theories and concepts of the field, giving students the chance to practice deal making and conflict resolution through participation in negotiation exercises.	
Fall 2016	M	Mktg	448	Digital Media Planning and Design	4	Covers the use of digital communication channels (internet, mobile, etc.) to strategically reach key audiences and foster consumer relationships. Topics include interactive media planning principles, use of digital media as PR tools, online metrics to measure marketing/advertising effectiveness, and basics of web site content construction (navigation, atmospherics, etc.). Prerequisite: BA 311.	Prerequisite.
Fall 2016	D	Mktg	511	Pioneering Innovation	4		Change course number to Mktg 513.
Fall 2016	М	Mktg	512	Marketing Strategy	4	Entrepreneurial, medium- and large-size organizations are considered in terms of how they develop and implement a marketing strategy. Topics include the role of marketing in a competitive environment, market segmentation, selection of target markets, development of product, pricing, packaging and distribution strategies, as well as social and 'green' marketing strategies.	Description, prerequisite
Fall 2016	N	Mktg	513	Pioneering Innovation	4	This course provides students with an understanding of the innovation process and its relationship to creating and managing organizations that can be sustained in the global economy. Consideration of the customer and the customer/firm interface is emphasized. Additionally the course will include methods for fostering the creative process.	Change course number from Mktg 511.
Fall 2016	M	Mth	261	Introduction to Linear Algebra	4	Systems of linear equations, linear transformations, matrix algebra, vector spaces, and determinants. Prerequisite: Mth 251.	Prerequisite.
Fall 2016	М	Mth	411	Introduction to Real Analysis I	3	Analysis on metric spaces, Baire Category, Contraction Mapping, and Stone-Weierstrass theorems. Lebesgue measure and integration theory, functions of bounded variation, absolutely continuous functions. Banach and Hilbert spaces. Bases and duality on Hilbert spaces, linear operators on Banach spaces. Introduction to Fourier series. This is the first course in a sequence of three: Mth 411, Mth 412 and Mth 413 which must be taken in sequence. Also offered for graduate-level credit as Mth 511 and may be taken only once for credit.	Description
Fall 2016	M	Mth	412	Introduction to Real Analysis II	3	Analysis on metric spaces, Baire Category, Contraction Mapping, and Stone-Weierstrass theorems. Lebesgue measure and integration theory, functions of bounded variation, absolutely continuous functions. Banach and Hilbert spaces. Bases and duality on Hilbert spaces, linear operators on Banach spaces. Introduction to Fourier series. This is the second course in a sequence of three: Mth 411, Mth 412 and Mth 413 which must be taken in sequence. Also offered for graduate-level credit as Mth 512 and may be taken only once for credit.	Description
Fall 2016	М	Mth	413	Introduction to Real Analysis III	3	Analysis on metric spaces, Baire Category, Contraction Mapping, and Stone-Weierstrass theorems. Lebesgue measure and integration theory, functions of bounded variation, absolutely continuous functions. Banach and Hilbert spaces. Bases and duality on Hilbert spaces, linear operators on Banach spaces. Introduction to Fourier series. This is the third course in a sequence of three: Mth 411, Mth 412 and Mth 413 which must be taken in sequence. Also offered for graduate-level credit as Mth 513 and may be taken only once for credit.	Description
Fall 2016	м	Mth	511	Introduction to Real Analysis I	3	Analysis on metric spaces, Baire Category, Contraction Mapping, and Stone-Weierstrass theorems. Lebesgue measure and integration theory, functions of bounded variation, absolutely continuous functions. Banach and Hilbert spaces. Bases and duality on Hilbert spaces, linear operators on Banach spaces. Introduction to Fourier series. This is the first course in a sequence of three: Mth 511, Mth 512 and Mth 513 which must be taken in sequence. Also offered for undergraduate-level credit as Mth 411 and may be taken only once for credit.	Description

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Fall 2016	M	Mth	512	Introduction to Real Analysis II	3	Analysis on metric spaces, Baire Category, Contraction Mapping, and Stone-Weierstrass theorems. Lebesgue measure and integration theory, functions of bounded variation, absolutely continuous functions. Banach and Hilbert spaces. Bases and duality on Hilbert spaces, linear operators on Banach spaces. Introduction to Fourier series. This is the second course in a sequence of three: Mth 511, Mth 512 and Mth 513 which must be taken in sequence. Also offered for undergraduate-level credit as Mth 412 and may be taken only once for credit.	Description
Fall 2016	M	Mth	513	Introduction to Real Analysis III	3	Analysis on metric spaces, Baire Category, Contraction Mapping, and Stone-Weierstrass theorems. Lebesgue measure and integration theory, functions of bounded variation, absolutely continuous functions. Banach and Hilbert spaces. Bases and duality on Hilbert spaces, linear operators on Banach spaces. Introduction to Fourier series. This is the third course in a sequence of three: Mth 511, Mth 512 and Mth 513 which must be taken in sequence. Also offered for undergraduate-level credit as Mth 413 and may be taken only once for credit.	Description
Fall 2016	N	PA	575	Foundations of Collaborative Governance	3	This initial course provides an overview of the current governing context and the new models that have emerged in response. In addition, students will explore the nature of collaborative relationships, the role of trust, harnessing the potential power of groups, and how to address conflict and reach consensus.	
Fall 2016	N	PA	576	Collaborative Voernance Process and Systems	3	This skills-based course focuses on the assessment, organization and phases of facilitating collaborative agreement-seeking processes, emphasizing techniques and challenges for reaching mutually satisfying agreements, including how to frame an issue to increase the group's chance for success.	
Fall 2016	N	PA	577	Case Studies in Collaborative Governance	3	Student teams to review three collaborative governance cases, one successful, one unsuccessful, and one a work in progress. A fourth case will be identified by the team. The course introduces typologies for different forms of collaborative governance and provides theory-based frameworks to assist in analyzing governance network efficacy. m	
Fall 2016	N	PA	578	Collaborative Governance Practicum	3	In this culminating practicum students participate in discussions with faculty experts and fellow students as they apply the knowledge and skills gained in core courses to a community-based problem, issue or project of their choosing. Co-requisite: PA 577. Prerequisite: PA 575, PA 576, and PA 596.	
Fall 2016	N	PA	579	Policy Tools in Policy Design	3	This course concerns the use of policy tools in designing public policy. It considers the strengths and weaknesses of the individual tools and the tradeoffs made in choosing or combining them. The way policy mechanisms and instruments are assembled into a policy mix can be helpful or seriously problematic.	
Fall 2016	D	PAH	641	Organizational Behavior in Health Services	3		
Fall 2016	D	PAH	660	Contemporary Research in Health Systems and Policy	3		
Fall 2016	D	PAH	671	Health Policy	3		
Fall 2016	D	PAH	673	Values and Ethics in Health	3		
Fall 2016	D	PAH	674	Health Systems Organization	3		
Fall 2016	D	PAH	677	Health Care Law and Regulation	3		_
Fall 2016	D	PAH	686	Introduction to Health Economics	3		_
Fall 2016	D	PAH	689	Research Design in Health Services	3		
Fall 2016	М	PAP	653	Policy Analysis	3		Title
Fall 2016	D	Ph	261	General Astronomy I	4		
Fall 2016	D N	Ph Ph	361U	General Astronomy I	4	An introduction to the history of astronomy, the nature of light, telescopes, and an examination of the Earth and other planets both within and outside of the solar system. Emphasis on basic scientific methods, including relationships found through ratios, powers, and a few square roots. Includes laboratory. This is the first course in a sequence of two: Ph 361U and Ph 362U. This is the same course as Sci 315U and may be takin only once for credit.	

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Fall 2016 Fall 2016	N D	Ph PHE	362U 513	General Astronomy II Health, Behavior and the Social Environment	Survey of the sun, stars, black holes, galaxies, and the role of women in the study of cosmic evolution and structure. Emphasis on basic scientific methods, including relationships found through ratios, powers, and a few square roots. Includes laboratory. This is the second course in a sequence of two: Ph 361U and Ph 362U. This is the same course as Sci 316U and may be taken only once for credit.	
Fall 2016	U	PHE	313	Treatti, Beriavior and the oocial Environment		
Fall 2016	N	PHE	524	SocialEpidemiology Methods and Theory	Surveys social epidemiology practice?including measurement, study design, analysis and translation?for researching behavioral, social, economic, and cultural determinants of population distributions of health outcomes. The course emphasizes the application of social epidemiology methods tightly coupled to theory salient to community health practice & policy. Prerequisite: PHE 530 and PHE 515.	
Fall 2016	М	PHE	624	Doctoral Research Methods in Commnity Health I	Approaches to community health research are explored, including the scientific method, ethics in research, theories, conceptual models and hypothesis generation, causal inference, the elements of research design, measurement (reliability, validity), developing data collection instruments, internal and external validity, and experimental methods.	Title, description
Fall 2016	м	PHE	624	Doctoral Research Methods in Commnity Health II	A second course in applied, non-experimental research designs used in epidemiological research (following PHE 624). Emphasis in this course is on quasi-experimental designs, program evaluation, sampling methods, longitudinal designs, and secondary data sources. Students will learn about research design, critical evaluation of research methods, and research proposal concepts. Prerequisite: PHE 624 or consent of instructor.	Title
Fall 2016	М	PHE	626	Teaching and Learning in Health Promotion and Social Work	This course focuses on pedagogical theory and practice in professional settings. Students develop skills to design, evaluate, and implement effective curriculum and instruction across settings: academic classrooms, community contexts, and research projects. Topics include educational theory, course design, learning and teaching strategies, assessment, and scholarship of teaching and learning. This is the same course as SW 626 and may be taken only once for credit.	Title, credits
					Historical development of life, thought and the arts in Brazil. Conducted in English. This	,
Fall 2016	N	Port	330	Brazilian Culture and Civilization	4 course may be taken twice for credit with different topics.	
Fall 2016	N	PS	373	Violence Rebellion and Civil War	Discusses the causes and consequences of the dominant modes of rebellion and civil war with attention to the role that violence plays in shaping their character, duration, and outcome. Topics include genocide, famine, civil war, sexual violence in war, nationalism and ethnic conflict, counterinsurgency and counterterrorism, and peacekeeping.	
Fall 2016	N	PS	477	Global Food Politics and Policy	Politics and policy of food production and consumption in both rich and poor nations. Review of competing policy arguments across issues relating to food security, markets and market access, and the environment and public health. Also offered for graduate-level credit as PS 577 and may be taken only once for credit. Prerequisite: Upperdivision standing or graduate standing.	
Fall 2016	N	PS	577	Global Food Politics and Policy	Politics and policy of food production and consumption in both rich and poor nations. Review of competing policy arguments across issues relating to food security, markets and market access, and the environment and public health. Also offered for undergraduate-level credit as PS 477 and may be taken only once for credit. Prerequisite: Upper-division standing or graduate standing.	
Fall 2016	М	Psy	537	Qualitative Research Methods for Social Inquiry	Introduction to qualitative research methods in psychology. Covers epistemology, research design, data collection techniques, narrative analysis, computer-aided analysis of text, qualitative research ethics, and writing/reporting of research. Includes field research project in the community. Also offered as Psy 637 and may be taken only once for credit.	Title, description
Fall 2016	М	Psy	637	Qualitative Research Methods for Social Inquiry	Introduction to qualitative research methods in psychology. Covers epistemology, research design, data collection techniques, narrative analysis, computer-aided analysis of text, qualitative research ethics, and writing/reporting of research. Includes field research project in the community. Also offered as Psy 537 and may be taken only once for credit.	Title, description

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Fall 2016	м	RE	439	Real Estate Valuation I	Fundamentals of appraising real estate, focusing on valuation techniques for income- producing real estate assets. Analysis of income and expenses, net operating income, leveraged and unleveraged cash flows, debt coverage ratios, direct capitalization, multipliers, and discounted cash flows. Marketability analysis, highest and best use concepts, zoning, environmental issues, and the risks and rewards of real estate development are discussed. Also offered for graduate-level credit as RE 539 and may be taken only once for credit. Prerequisite: BA 303.	otion, prerequisite, credit
Fall 2016	м	RE	539S	Real Estate Valuation I	Fundamentals of appraising real estate, focusing on valuation techniques for income- producing real estate assets. Analysis of income and expenses, net operating income, leveraged and unleveraged cash flows, debt coverage ratios, direct capitalization, multipliers, and discounted cash flows. Marketability analysis, highest and best use concepts, zoning, environmental issues, and the risks and rewards of real estate development are discussed. Also offered for undergraduatej-level credit as RE 439 and may be taken only once for credit. Prerequisite: Fin 551 or Fin 513 or RE 521.	otion, prerequisite, credit
Fall 2016	N	SpEd	411	Foundations of Special Education	Introduces research, theory and data as foundation for guiding decision making and professional practice in special education guided by the "Critical Concepts" of Special Education" as identified by department faculty including Individualization; inclusion and Diversity; Scaffolding Instruction; Data-based Decision Making; Collaboration and Teaming; and Leadership and Advocacy. Also offered for graduate-level credit as SpEd 511 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	414	Legal and Ethical Foundations of Special Education	Overview of state and federal laws, rules and regulations, including analysis of the Individuals with Disabilities Education Act (2004), and their impact on service provision for students with disabilities. Issues of ethics, inclusion, and diversity are integrated within this course. Application of Oregon Administrative Rules will be highlighted. Also offered for graduate-level credit as SpEd 514 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	415	Classroom Assessment, Instruction, and Behavior Management (Elementary)	Focus on establishing effective instructional environments through research-based techniques of behavior management, assessment, and instructional delivery in elementary settings. Also offered for graduate-level credit as SpEd 515 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	416	Classroom Assessment, Instruction, and Behavior Management (Secondary)	Establishing effective instructional environments through research-based techniques of behavior management, assessment, and instructional delivery. Also offered for graduate level credit as SpEd 516 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	422	Comprehensive Individualized Assessment and Curriculum I	Develop philosophical and social foundations for services to individuals with significant and multiple disabilities. Emphasize ecological and functional assessment strategies for daily living skills, communication, social, motor, and academic domains. Address strategies for including students with significant and multiple disabilities in system-wide, standards-based assessment. This is the first course in a sequence of two: SpEd 422 and SpEd 423. Also offered for graduate-level credit as SpEd 522 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	423	Comprehensive Individualized Assessment and Curriculum II	Apply knowledge and skills for functional assessment and applied behavior analysis in the design and implementation of an individualized, functional curriculum for students with significant and multiple disabilities, early childhood through adulthood. Emphasize curricular content for life skills, communication, social, motor, and cognitive/functional academic domains. This is the second course in a sequence of two: SpEd 422 and SpEd 423. Also offered for graduate-level credit as SpEd 523 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	

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Fall 2016	N	SpEd	426	IEP and Collaborative Teaming (Elementary)	Increase your understanding of the processes and skills involved in collaborative teaming. Study practices and techniques that enhance collaboration and consultation among teaching professionals, students, families, paraprofessionals, administrators and service personnel. Carefully examine the IEP process to help define necessary case management skills and effective facilitation of team meetings. Also offered for graduate-level credit as SpEd 526 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.
Fall 2016	N	SpEd	427	IEP and Collaborative Teaming (Secondary)	This course examines collaborative teaming and consultation among teaching professionals, students, families, paraprofessionals, administrators and service personnel in the context of culturally diverse schools and communities. Careful examination of the IEP process will help define requisite case management skills and effective meeting facilitation skills that promote productive teaming processes. Also offered for graduate-level credit as SpEd 527 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.
Fall 2016	N	SpEd	430	Families and Advocacy (Elementary)	Investigate practical strategies and tools in the areas of student support and advocacy, school-family collaboration and transition planning. Curriculum related to personcentered planning and teaching self-determination skills will be addressed. Examine collaborative skills needed to empower students, families, communities, service agencies, and other support systems. Also offered for graduate-level credit as SpEd 530 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.
Fall 2016	N	SpEd	431	Families and Advocacy (Secondary)	Investigate practical strategies, tools and exemplary practitioners in the areas of student support and advocacy, school-family collaboration and transition planning. Address concepts and curriculum related to person-centered planning and teaching self-determination skills. Examine collaborative skills needed to empower students, families, service agencies, and other support systems to facilitate inclusive practices. Also offered for graduate-level credit as SpEd 531 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.
Fall 2016	N	SpEd	433	Math Assessment and Instruction	Examine assessment, instructional methods, and curricula for teaching math and supporting the learning of SPED students at the elementary and secondary levels. Learn techniques for teaching concepts, skills, problem solving, and learning strategies as means to help learners achieve success in school and beyond the secondary levels. Also offered for graduate-level credit as SpEd 533 and may e taken only once for credit. Prerequisite: admission to the Special Educator Licensure Program or MS in Special Education.
Fall 2016	N	SpEd		Reading Assessment and Instruction (Elementary)	Teacher candidates will develop a foundation in research-based instruction for reading to children pre-kindergarten through eighth grade with a broad range of skills and needs in special and regular education. Course provides an overview of language and reading development, instructional practices for teaching, and assessing core early literacy skills. Also offered for graduate-level credit as SpEd 537 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.
Fall 2016	N	SpEd	438	Reading Assessment and Instruction (Secondary)	Develop the knowledge base and skills for effectively teaching reading skills to students with high incidence disabilities in schools. Address instructional methods for students who are emergent, developing, and more fluent readers and writers. Explore the use of research-based reading programs and other literacy materials in grades 6 - 12. Also offered for graduate-level credit as SpEd 538 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.
Fall 2016	N	SpEd	439	Historical and Contemporary Issues in Disability Studies	Examines how views of disability in schools and other social contexts challenge traditional understandings of disability in the field of special education. Students will examine their views of disability through analysis of texts produced by writers with disabilities and the examination of society's treatment of persons with disability. Also offered as graduate-level credit as SpEd 539 and may be taken nly once for credit. Prerequisite: Upper-division standing.

Fall 2016	N	SpEd	511	Foundations of Special Education	3	Introduces research, theory and data as foundation for guiding decision making and professional practice in special education guided by the "Critical Concepts" of Special Education" as identified by department faculty including Individualization; Inclusion and Diversity; Scaffolding Instruction; Data-based Decision Making; Collaboration and Teaming; and Leadership and Advocacy. Also offered for undergraduate-level credit as SpEd 411 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	514	Legal and Ethical Foundations of Special Education	3	Overview of state and federal laws, rules and regulations, including analysis of the Individuals with Disabilities Education Act (2004), and their impact on service provision for students with disabilities. Issues of ethics, inclusion, and diversity are integrated within this course. Application of Oregon Administrative Rules will be highlighted. Also offered for undergraduate-level credit as SpEd 414 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	515	Classroom Assessment, Instruction, and Behavior Management (Elementary)	4	Focus on establishing effective instructional environments through research-based techniques of behavior management, assessment, and instructional delivery in elementary settings. Also offered for undergraduate-level credit as SpEd 415 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	N	SpEd	516	Classroom Assessment, Instruction, and Behavior Management (Secondary)	4	Establishing effective instructional environments through research-based techniques of behavior management, assessment, and instructional delivery. Also offered for undergraduate-level credit as SpEd 416 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	D	SpEd	522	Collaboration II (Elementary): Families, Schools & Inclusion Strategies	3		
Fall 2016	N	SpEd	522	Comprehensive Individualized Assessment and Curriculum I	3-4	Develop philosophical and social foundations for services to individuals with significant and multiple disabilities. Emphasize ecological and functional assessment strategies for daily living skills, communication, social, motor, and academic domains. Address strategies for including students with significant and multiple disabilities in system-wide, standards-based assessment. This is the first course in a sequence of two: SpEd 422 and SpEd 423. Also offered for undergraduate-level credit as SpEd 422 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	D	SpEd	523	Collaboration 1: Work & Transition	3		
Fall 2016	N		523	Comprehensive Individualized Assessment and Curriculum II	3-4	Apply knowledge and skills for functional assessment and applied behavior analysis in the design and implementation of an individualized, functional curriculum for students with significant and multiple disabilities, early childhood through adulthood. Emphasize curricular content for life skills, communication, social, motor, and cognitive/functional academic domains. This is the second course in a sequence of two: SpEd 422 and SpEd 423. Also offered for undergraduate-level credit as SpEd 423 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	D	SpEd	526	Instruction Methods I: Literacy Elementary	3		
Fall 2016	N	SpEd	526	IEP and Collaborative Teaming (Elementary)	3	Increase your understanding of the processes and skills involved in collaborative teaming. Study practices and techniques that enhance collaboration and consultation among teaching professionals, students, families, paraprofessionals, administrators and service personnel. Carefully examine the IEP process to help define necessary case management skills and effective facilitation of team meetings. Also offered for undergraduate-level credit as SpEd 426 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	D	SpEd	527	Instructional Methods II: Math & Content Areas (Elementary)	3		
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						This course of the control of the co	
						This course examines collaborative teaming and consultation among teaching professionals, students, families, paraprofessionals, administrators and service	
						personnel in the context of culturally diverse schools and communities. Careful	
						examination of the IEP process will help define requisite case management skills and	
						effective meeting facilitation skills that promote productive teaming processes. Also	
						offered for undergraduate-level credit as SpEd 427 and may be taken only once for	
Fall 2016	N	SpEd	527	IEP and Collaborative Teaming (Secondary)	3	credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in Special Education.	
Fall 2016	D		528	Instructional Methods I: Literacy (Secondary)	3	Special Education.	
1 811 2010	, , , , , , , , , , , , , , , , , , ,	ОРЕЧ	020	Instructional Methods II: Math & Content Areas	3		
Fall 2016	D	SpEd	529	(Middle/Secondary)	3		
						Investigate practical strategies and tools in the areas of student support and advocacy,	
						school-family collaboration and transition planning. Curriculum related to person-	
						centered planning and teaching self-determination skills will be addressed. Examine collaborative skills needed to empower students, families, communities, service	
						agencies, and other support systems. Also offered for undergraduate-level credit as	
						SpEd 430 and may be taken only once for credit. Prerequisite: Admission to the Special	
Fall 2016	N	SpEd	530	Families and Advocacy (Elementary)	3	Educator Licensure Program or MS in Special Education.	
						Investigate practical strategies, tools and exemplary practitioners in the areas of student	
						support and advocacy, school-family collaboration and transition planning. Address	
						concepts and curriculum related to person-centered planning and teaching self-	
						determination skills. Examine collaborative skills needed to empower students, families, service agencies, and other support systems to facilitate inclusive practices. Also	
						offered for undergraduate-level credit as SpEd 431 and may be taken only once for	
						credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in	
Fall 2016	N	SpEd	531	Families and Advocacy (Secondary)	3	Special Education.	
Fall 2016	D	SpEd	532	Functional Assessment and Curriculum I	4		
						Examine assessment, instructional methods, and curricula for teaching math and	
						supporting the learning of SPED students at the elementary and secondary levels.	
						Learn techniques for teaching concepts, skills, problem solving, and learning strategies	
						as means to help learners achieve success in school and beyond the secondary levels. Also offered for undergraduate-level credit as SpEd 433 and may be taken only once for	
						credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in	
Fall 2016	N	SpEd	533	Math Assessment and Instruction	3	Special Education.	
Fall 2016	D	SpEd	534	Functional Assessment and Curriculum II	4		
						Teacher candidates will develop a foundation in research-based instruction for reading	
						to children pre-kindergarten through eighth grade with a broad range of skills and needs	
						in special and regular education. Course provides an overview of language and reading	
						development, instructional practices for teaching, and assessing core early literacy skills. Also offered for undergraduate-level credit as SpEd 437 and may be taken only	
						once for credit. Prerequisite: Admission to the Special Educator Licensure Program or	
Fall 2016	N	SpEd	537	Reading Assessment and Instruction (Elementary)	3	MS in Special Education.	
						Develop the knowledge base and skills for effectively teaching reading skills to students	
						with high incidence disabilities in schools. Address instructional methods for students	
						who are emergent, developing, and more fluent readers and writers. Explore the use of	
						research-based reading programs and other literacy materials in grades 6 - 12. Also	
						offered for undergraduate-level credit as SpEd 438 and may be taken only once for credit. Prerequisite: Admission to the Special Educator Licensure Program or MS in	
Fall 2016	N	SpEd	538	Reading Assessment and Instruction (Secondary)	3	Special Education.	
						Examines how views of disability in schools and other social contexts challenge	
						traditional understandings of disability in the field of special education. Students will	
						examine their views of disability through analysis of texts produced by writers with disabilities and the examination of society's treatment of persons with disability. Also	
Fall 2016	N	SpEd	539	Historical and Contemporary Issues in Disability Studies	4	offered as undergraduate-level credit as SpEd 439 and may be taken nly once for credit.	
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Fall 2016	N	SpHr	471	Neurolinguistics	Neurolinguistics introduces the study of the relationship between linguistic processes and the human brain. Learn about language processing from psychological and neurological perspectives. Expected preparation: Introductory understanding of linguistics and psychology is strongly recommended (Introduction to Linguistics and Introduction to Psychology). Also offered for graduate-level credit as SpHr 571 and may be taken only once for credit. Prerequisite: SpHr 461 or equivalent.	
Fall 2016	N	SpHr	571	Neurolinguistics	Neurolinguistics introduces the study of the relationship between linguistic processes and the human brain. Learn about language processing from psychological and neurological perspectives. Expected preparation: Introductory understanding of linguistics and psychology is strongly recommended (Introduction to Linguistics and Introduction to Psychology). Also offered for undergraduate-level credit as SpHr 471 and may be taken only once for credit.	
Fall 2016	N	sw	384	Addictions and Recovery: Impact on Families and Communities	The impact of addictions will be addressed through the literature and practices of psychology, sociology, medicine, and social work. We will explore the definitions of substance abuse and paths to recovery mediated by the influence of social, cultural, and political forces impacting individuals, families, and communities. Prerequisite: Upper division standing.	
Fall 2016	M	SW	430	Generalist Practice with Groups	Based on generalist social work practice principles, this course prepares students for practice with groups. The course focuses on helping students to develop assessment and intervention skills for working with client, organizational and community groups. Students will learn how to develop a group proposal, facilitate a group, and assess group dynamics. Prerequisite: Admission to the major and SW 351.	Title, description
Fall 2016	M	sw	432	Generalist Practice with Communities and Organizations	The purpose of this course is to prepare students to intentionally and effectively work with organizations and communities. Skills will be developed in the context of social work values and ethics, with special attention to social and economic justice. Prerequisite: SW 431.	Title, description
Fall 2016	N	SW	513	Research Methods for Social Work Advanced Standing Students	Required research methods course for students admitted to the MSW Advanced Standing program. It assures students have a solid foundation in research knowledge and skills needed for the advanced year of the MSW Program.	
Fall 2016	N	SW	549	Spirituality in Social Work Practice	Explore the spiritual and religious diversity of clients and communities and its role in individual, group and community life. Identify and apply a framework of knowledge, values and practice methodologies to conducting bio-psychosocial spiritual assessments within a wide range of social work practice settings.	
Fall 2016	N	SW	553	Racial Disparities	Reduce racial inequities in organizations requires gaining theory and practice skills. This course provides both, integrating heightened attention to policy, research and intervention approaches to reduce racial disparities in a wide array of human service systems. The course focuses on building individual, organizational and leadership efficacy for advancing racial equity. Prerequisites: SW 550 and SW 551.	
Fall 2016	N	SW	556	Advanced Clinical Practice in Integrated Health Care	Introduction to the direct practice of integrated health in primary care. Students will become knowledgeable of the roles of health providers working in primary care settings, theories and models of care, engagement, assessment, intervention, practice evaluation, and cross-cultural issues. Prerequisites: SW 530, SW 540, SW 551.	
Fall 2016	N	sw	559	Community and Organization Research	Prepares for mezzo and macro research practices to create the evidence base for social change (building the research base to advance reforms), strengthening organizations (designing and using program evaluation to improve programs and organizations), and building the voice and influence of marginalized communities (including local and regional communities and organizational service users). Prerequisites: SW 550 and SW 551.	
Fall 2016	N	SW	583	Empowerment Approaches with Transition-Age Youth with Mental Health Needs	Prepares students to work collaboratively with youth and young adults with mental health needs. Co-taught with a young adult and a parent with mental health services experience. Focuses on skills for partnering with youth to overcome barriers to success, increase self-determination and leadership skills, and strengthen family and peer support.	

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						Aims to (re)introduce theories, interventions, research, and complex issues associated	
						with intimate partner violence (IPV). Students will be asked to explore the intersections	
						of micro and macro violence to better understand the influence of state and structural	
						violence on the lives of individuals and communities, particularly those from racialized	
Fall 2016	N	SW	584	Intimate Partner Violence	3	groups.	
						Primary focus is development of a conceptual framework to guide scholarly work in	
						student's selected area of inquiry. Students define domain of interest, review relevant	
						literature, consider cultural, historical, and political contexts, and note relevance for	
						human services professions. Students explore multiple theoretical perspectives,	
						evaluate their merits, synthesize into conceptual framework, and discuss implications for	
Fall 2016	M	SW	620	Substantive Area Conceptualization	3	research and practice.	Title, description
						This class allows students to put into practice what they have learned in their theory,	
						research methods, and substantive area courses. Students will design a study in their	
E-II 0040		CVA	600	Substantive Area Investigation	2	substantive area, focusing on methodological rigor, ethical practice,	Title description prorequisite
Fall 2016	M	SW	622	Substantive Area Investigation	3	community/stakeholder engagement, and potential impact. Prerequisite: SW 620	Title, description, prerequisite
						Focus on pedagogical theory and practice in professional settings. Students develop	
						skills to design, evaluate, and implement effective curriculum and instruction across	
						settings: classrooms, community contexts, and research projects. Topics include	
						educational theory, course design, learning and teaching strategies, assessment, and	
				Tarabian and Langian in Harlth Barnatian and Casial		scholarship of teaching and learning. This is the same course as PHE 626 and may be	
Fall 2016	N	sw	626	Teaching and Learning in Health Promotion and Social Work	2	taken only once for credit. This is the same course as PHE 626 and may be taken only once for credit. Prerequisite: Admission to doctoral program in Social Work.	
Fall 2010	IN	344	020	Work	3		
						The goal of this course is to introduce students to philosophies of science and the implications for scientific practices and other means of generating knowledge. The	
						course will advance students' activities to critically analyze issues related to the	
						consumption and production of knowledge in the social and behavioral sciences	
Fall 2016	м	sw	630	Philosophy of Science for Social Sciences	3	generally.	Title, description
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						Introduction to qualitative research methods in the social sciences. The course reviews epistemologies informing qualitative research. The course also explores commonly used	
						methods including field notes, interviews, focus groups, case studies, observational	
						methods, and open-ended surveys. Introduction to various analysis and writing	
						strategies will be explored. This is the same course as Psy 637 and may be taken only	
						once for credit. This is the same course as Psy 637 and may be taken only once for	
Fall 2016	M	sw	637	Qualitative Research Methods for Social Inquiry	4	credit.	Title, description, credits
						Participation in a research study under the supervision of appropriate faculty.	
						Opportunity to master research skills which fit the student's learning needs. Time on site	
						working on the project is 150 hours. Seminar taken concurrently with practicum enables	
						students to explore together their research experiences in their respective research	
						projects. Students will gain deepening knowledge through comparison of experiences.	Description, prerequisites, credits,
Fall 2016	M	sw	640	Research Practicum and Seminar	1-3	Pass/no pass only. Prerequisite: SW 637.	repeatability
Fall 2016	D	SW	641	Research Practicum and Seminar	2		
Fall 2016	D	SW	642	Research Practicum and Seminar	2		
						History of the profession of social work through a social justice lens. The role of	
						government, economics, historical figures, and culture in shaping social work	
						profession. Critical theories will guide the exploration of social work's mission, history,	
L	1	1				ethics, values and prominent issues within the context of national and international	
Fall 2016	M	SW	650	History of Social Work Profession/al	3	trends.	Title, description
Fall 2016	M	SW	660	Ph.D. Seminar - First Year	1		Title, repeatability
1						The Ph.D. Seminar–Second Year is a three-term sequence designed to provide a forum	
						for students to continue professional exploration, and learn how to navigate finding and	
						securing employment opportunities both within and outside academia. Students also	
						spend this time learning how to progress successfully through major milestones post-	
Eall 2040	N	CVAZ	661	Ph D. Saminar, Second Voor		coursework, including comprehensive examination and dissertation. Prerequisite: SW	
Fall 2016	N	SW	661	Ph.D. Seminar - Second Year	11	660.	

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Fall 2016	м	SW	690	Teaching Practicum and Seminar	Focuses on the practical teaching aspects in various social work settings, including instruction in the classroom, and the facilitation of trainings and workshops. Salient theoretical and practical issues in adult learning are explored. Discusses curriculum planning and issues around human diversity and teaching. Supports student teaching experiences. Prerequisite; SW 626.	
Fall 2016	D	TA	313	Scene Design II	4	
Fall 2016	М	TA	314	Lighting Design 1	Introduction to stage lighting. Exploration of the medium of light through observation, analysis, and recreation while working with the fixtures used in modern stage lighting. Also includes the graphic standards for stage lighting design. Open to non-majors with instructor consent. Prerequisite: TA 121, TA 201.	Title, description, prerequisite, credits
Fall 2016	N	TA	347	Mainstage Production	Through rehearsal and the stage production, students are challenged to pursue a commitment to individual excellence and collaboration, discover a passion for their discipline, and develop a firm grounding in the core components of live performance.	
Fall 2016	М	ТА	430	Scene Design 2	Advanced course in scene design for the theater. Emphasis on research, conceptual thought, the imagination and manipulation of the stage environment, constructive collaboration, and the development of technical skills required of professional scenic designers. Open to non-majors with instructor consent. Prerequisite: TA 311.	Title, description, prerequisite
Fall 2016	М	TA	435	Lighting Desgin 2	Advanced stage lighting with primary focus on implementation and documentation required to organize, communicate and track your ideas. Extensive training in two essential programs: Vectorworks™ and Lightwright™. Prerequisite: TA 314.	Title, description, prerequisite, credits
Fall 2016	N	Unst	170	Multilingual FRINQ Lab	Using materials and assignments from FRINQ courses, students develop strategies for completing reading and writing assignments, class participation, and small group work. For students enrolled in Freshman Inquiry (FRINQ) whose first language is not English, or who could benefit from additional support with English.	
Fall 2016	N	Unst	321	Learning in Action	Applied learning experience in the UNST cluster. Two required parts: 1) Individual community internship, volunteer experience, or project. 2) Online course exploring connections between disciplinary approaches in cluster and community work, different forms of engagement, intersections of race, class, and gender with community work, and development of professional skills.	
Fall 2016	N	Unst	389	Transition from College to Your Professional Life	This course is designed to assist Student Support Services upperclassmen transition from college to career opportunities or graduate and/or professional programs. By providing assistance with these processes, we hope our students will experience success in their various endeavors after graduation.	
Fall 2016	N	Unst	390	TRiO Student Support Services Transfer Student Bridge Program	Introduction to personnel, resources, and systems at PSU. Through classroom activities, discussions, group work, and presentations, the class aims to give transfer students a solid foundation for understanding how to successfully navigate their experience at PSU and get the most out of their education. Prerequisite: Admission to the TRiO SSS program.	
Fall 2016	N	UPA	103	CUPA Pathways: Student Success	Focuses on identity, community and skill building for a successful and meaningful educational experience. Assignments enable the development of strong technical and communication skills, preparing students for academic and professional success. Autonomy, realistic educational objectives and support services are highlighted.	
Fall 2016	N	UPA	335	World Changing Jobs: Career Exploration	Expose students to a wide array of career related resources in urban and public affairs, allow for skill building and professional networking. Students will gain a better understanding of what career options would be a go	
Fall 2016	N	UPA	425	CUPA Dean's Seminar	An integrative course providing students with substantive opportunities to explore, connect and apply major theories and practices associated with urban and public affairs. Students will focus on issues of community resilience based in democratic participation for positive community change. Prerequisite: Senior standing.	

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Fall 2016	N	USP	657	Advanced Data Analysis: Discrete Choice Modeling	3	Presents the theory and practice underlying the formulation and estimation of models of individual discrete choice behavior with applications to travel, travel related and other choices. Provides students with an understanding of the theory, methods, application and interpretation of multinomial logit (MNL), nested logit and other members of the Generalized Extreme Value (GEV) family of models, as well as an introduction to mixed logit models. Prerequisite: USP 634 or equivalent intermediate statistics/econometrics course.	
Fall 2016	N	Viet	101 102 103	First-Year Vietnamese Term 1, 2, 3	4,4,4	Elementary work in the Vietnamese language with emphasis on listening comprehension, speaking, grammatical patterns, reading, and writing. Includes discussions of Vietnamese culture and traditions. Suitable for beginners and Vietnamese speakers with limited ability.	
Fall 2016	IN	viet	101, 102, 103	First-fear Vietnamese Term 1, 2, 3	4,4,4	vietnamese speakers with innited ability.	
Fall 2016	N	Viet	201, 202, 203	Second Year Vietnamese Term 1, 2, 3	4,4,4	Work in the Vietnamese language focusing on various cultural aspects of Vietnamese life. The language skills include speaking, listening, reading and writing. Resources and information fundamental to the Vietnamese heritage will be discussed.	
Fall 2016	N	WLL	319U	Fairy Tales and Folklore	4	A study of the fairy tale, folklore and/or other works originating orally representing a range of critical social and cultural issues. May be repeated with different topics. Course taught in English.	
Fall 2016	N	WLL	361	Bestsellers and Blockbusters	4	Study of the interplay between literary works from a variety of time periods and their cinematic representations. Students will develop analytical and critical thinking skills applicable both to the page and the screen. May be repeated with different topics. Course taught in English.	
Fall 2016	М	Wr	312	Intermediate Fiction Writing	_	Builds on fictional techniques introduced in Wr 212, including variations on the classic plot, complex points of view, and conventions of genre. Emphasizes discussion of student work. May be repeated once for credit. Prerequisite: B or higher in Wr 212 or consent of instructor based on a writing sample.	Description, prerequisite
Fall 2016	M	Wr	313	Intermediate Poetry Writing	4	Continues the study of poetry writing techniques introduced in Wr 213. Includes additional instruction in poetic forms, variations on traditional forms, and experimental forms. Emphasizes discussion of student work. May be repeated once for credit. Prerequisite: B or higher in Wr 213 or consent of instructor based on a writing sample.	Description, prerequisite
Fall 2016	N	Wr	398	Writing Comics	4	The graphic novel features the unique marriage of words and pictures that has seeped into every facet of popular culture. This course will focus on composing graphic narratives, exploring all the storytelling elements that create this unique visual medium.	
Fall 2016	м	Wr	412	Advanced Fiction Writing	4	Students can expect to write longer and more ambitious works of fiction, while exploring a variety of technical problems and other questions emerging from class discussion. Course may be repeated once for credit. Prerequisite: "B" or higher in Wr 312, or consent of instructor based on a writing sample.	
E # 0040			413	Advanced Deute Weitig		Students can expect to explore a variety of demanding technical problems and to experiment with poetic voices. Course may be repeated once for credit. Prerequisite:	D
Fall 2016	M	Wr		Advanced Poetry Writing	4	"B" or higher in Wr 313, or consent of instructor based on a writing sample. Building on the journalism skills learned in Media Writing and Media Editing, students use Portland to cover and write stories from community sources. Students are also introduced to reporting on a regular basis from news beats of their choosing. Expected preparation: Wr 328. Also offered for graduate-level credit as Wr 528 and may be taken	Description, prerequisite
Fall 2016	М	Wr	428	Advanced Media Writing	4	only once for credit. Prerequisite: Wr 228	Title, description, prerequisite
Fall 2016	М	Wr	512	Graduate Fiction Writing	4	Students will further refine their skills by writing longer and more ambitious works of fiction, as well as confront a variety of technical problems emerging from class discussion.	Title, prerequisite
			544	0 1 4 D 4 W''		Within a workshop format of writing, revising, critiquing and reading, students will strengthen their writing skills, and their understanding of how poems work. May be	
Fall 2016	М	Wr	514	Graduate Poetry Writing	4	repeated once for credit. Building on the journalism skills learned in Media Writing and Media Editing, students use Portland to cover and write stories from community sources. Students are also introduced to reporting on a regular basis from news beats of their choosing. Expected preparation: Wr 328. Also offered for undergraduate-level credit as Wr 428 and may be	Title, description
Fall 2016	M	Wr	528	Advanced Media Writing	4	taken only once for credit.	Title, description

Fall 2016	М	ws	367	War, Sexual Violence and Healing	4	Addresses various forms and causes of human rights violations during periods of both conflict and peace. Examines how poverty, injustice and gender-based inequalities reflect the political-economic structures that perpetuate gender-based violence among people. Students will investigate methods and means to combat such violence and facilitate healing.
Fall 2016	N	ws	451	Interrupting Oppression	4	Advanced exploration of diversity and social justice. It provides a framework for understanding specific interlocking systems of oppression and how they affect us. It gives a pedagogical frame for training about concepts of oppression and diversity; and how to apply this knowledge through the practice. Also offered for graduate-level credit as WS 551 and may be taken only once for credit. Prerequisite: Upper-division standing.
Fall 2016	N	ws	551	Interrupting Oppression	4	Advanced exploration of diversity and social justice. It provides a framework for understanding specific interlocking systems of oppression and how they affect us. It gives a pedagogical frame for training about concepts of oppression and diversity; and how to apply this knowledge through the practice. Also offered for undergraduate-level credit as WS 451 and may be taken only once for credit.

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This is a sequence of three: Viet 101 Viet 102, and Viet 103.
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