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2009

## Curriculum Change 2009-2010

Portland State University

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PSU Curricular Changes 2009-10

PSU Curricular Changes - Effective for Academic Year 2009-10								
This list submitted to OrACRAO on: 7/10/09								
PSU Curricular Change Cycle: Annual								
PSU annual submission date: June of each year								
Name & contact info of person updating this template: Steve Harmon 503-725-4596								
Effective Term	New (N) Modified (M) Deleted (D)	Prefix	Course#	Course Title	Credits	Course Description	Type of Change (for modified classes only)	Comments
Fall 2009	M	Actg	381, 382, 383	Financial Accounting and Reporting I, II, III	4,4,4	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. Courses must be taken in sequence. Prerequisites: BA 213 for Actg 381; Actg 381 for Actg 382; Actg 382 for Actg 383.	Change description; add Actg 383 Financial Accounting and Reporting III to sequence.	
Fall 2009	M	Fin	360	Real Estate Finance I	3	Application of finance and economic principles to analysis of real estate finance and investments. Emphasis on the development of problem solving capabilities through the use of computer application programs. Special attention is given to risk analysis, alternative mortgage instruments, hedging techniques, and the tax effects of real estate investment. Prerequisites: FIN 333. (The course is cross listed as USP 360, and may only be taken once for credit).	Change course number from Fin 453; change title from Real Estate Finance and Investments; change prerequisites.	
Fall 2009	M	Fin	439/539	Real Estate Valuation I	3	Fundamentals of appraising real estate. Land utilization. Analysis of real estate values by approaches followed by governmental and private appraisers. Prerequisites: Fin 439; Fin 333; Fin 539; Fin 551 or Fin 561 or USP 598.	Change prerequisites.	
Fall 2009	N	Fin	459/559	Advanced Real Estate Valuation	3	Applies concepts from 439/539 to examine case studies in real estate appraisal and valuation. Topics include valuation for financial reporting, determining the highest and best use for a site, and determination of value following a property taking or condemnation. Prerequisite: Fin 439/539.		
Fall 2009	M	Fin	473/573	Investment Analysis and Portfolio Management	4	A study of the application of both portfolio theory and fundamental valuation techniques in security investment decisions. Students in this course serve as porfolio managers to a real dollar portfolio, providing security and sector oversight to the portfolio. The implications of modern portfolio theory for portfolio management and in portfolio performance evaluation are emphasized. This is the first class in a <i>strongly recommended two-course</i> sequence. Offered fall, <i>winter</i> , and spring terms. Prerequisites: <i>Fin 319, Fin 449, and instructor approval for Fin 473; Fin 551 or Fin 561 for Fin 573; recommended Fin 553 at least concurrently for Fin 573.</i>	Convert to UG/Grad course by adding 473; change prerequisites.	
Fall 2009	M	Fin	474/574	Portfolio Management: Issues and Performance Assessment	2	This course is a continuation of Fin 573. Students will continue the responsibility of managing a real-dollar portfolio that was initiated in Fin 573. In addition, assessing and reporting on portfolio performance, and presenting a quarterly report to the investment community, will be an integrasl aspect of this course. This is the second coures in a two-class <i>course</i> sequence. <i>Offered winter, spring, and summer terms.</i> Prerequisites: <i>Fin 473 for 474, Fin 573 for 574.</i>	Convert to UG/Grad course by adding 474; change prerequisites.	
Fall 2009	N	ISQA	431	Transportation Regulation	4	Evolution of transportation law in the U.S., including examination of case law as precedent. Designed for those planning careers in transportation, logistics or supply chain management. Prerequisite: BA 339.		
Fall 2009	N	ISQA	440	Governmental Procurement	4	Introduction to theories and practices of governmental procurement. Major aspects of purchasing within public agencies in the United States with special emphasis on the Oregon statutes and administrative rules. Differences between public and private purchasing processes. Federal purchasing processes. Prerequisite: BA 339.		
Fall 2009	M	MIM	511	Global Business, Society and Ecology	4		Change title.	

PSU Curricular Changes 2009-10

Fall 2009	N	MIM	527, 528, 529	Intercultural Competence and Communications I, II, III	1,1,1	Study of the process of communication, its various components, and how cultural, sociocultural, psychocultural, and environmental influences affect the outcome, including the role of non-verbal communication. Analysis of successful adaptation to new cultures, including developing a communication competence in a new culture and dealing with conflict. While the principles of cross cultural communication and adaptation are generic to all cultures, two cultural environments, China and Japan, will be studied in depth, to develop cultural self-awareness.		Replaces MIM 576 with a three sequence course.
Fall 2009	D	MIM	547	International Trade Practices	2			
Fall 2009	N	MIM	551	Managing and Leading International Non-Governmental Organizations	4	Introduction to international non-governmental organizations and the contributions they make to the larger society. Develops an overall understanding of the relationship of strategic international NGO management and program effectiveness. Step-by-step development of a strategic plan that flows logically from the mission of the organization, the external environment, and organizational goals and objectives. Studies strategic planning, grant development, project development, execution and evaluation, marketing, financial management and law as it pertains to international NGOs. Prerequisite: MIM 511.		
Fall 2009	N	MIM	561	International Community Policy, Leadership and Decision-Making	4	Focuses on the principles and strategies of community and economic development in relation to participatory role appraisal, livelihood strategies and assessments, and community leadership and decision making. How to identify the interrelationships and influence of human behavior, natural resources and economic circumstances. Also focuses particularly on economically-disadvantaged international communities. Methods of engagement between international non-governmental organizations, corporations, and communities to further their respective and mutual objectives are addressed. Recommended prerequisite: MIM 511.		
Fall 2009	N	MIM	571	Global Strategic Cost Management	4	Takes the perspective that global managers should use multiple approaches to developing and using accounting information for global companies. Special emphasis placed on understanding traditional cost systems, activity-based costing systems, cost management in global supply chains and determining the cost of quality. Relies heavily on the examination of actual global company situations. Prerequisite: MIM 574.		
Fall 2009	N	MIM	572	Global Business Valuation	4	Focuses on financial analysis of the performance of the global business or parts of the global business such as product or projects. Tools and techniques of financial statement analysis from the perspective of chief financial and accounting officers, investors and creditors; development of models for determining and forecasting the profitability and financial position of the global firm. Business valuation techniques, emphasizing cash flow projections. Some issues in costs and risk management. Theoretical principles and practical approaches of valuation of a global business or business interest, including valuation strategies for specific purposes such as mergers, acquisitions, and corporate restructuring, multi-SBU and international operations. Prerequisite: MIM 574.		
Fall 2009	N	MIM	573	Cases in International Corporate Financial Management	4	This final course in the MIM International Corporate Finance Specialization integrates concepts, tools and knowledge gained from the previous specialization coursework. Case analyses are used to enhance analytical and quantitative skills applied to real-world situations. All case work focuses on companies having international operations, with particular emphasis on the Asia-Pacific region. Prerequisites: MIM 574, MIM 571, and MIM 572.		
Fall 2009	M	MIM	577	International Business Negotiations	3		Change credits from 2 to 3.	
Fall 2009	M	MIM	579	Asia Field Study	1	Field study in China, South Korea and Japan. As a capstone experience, students travel to China, South Korea and Japan (possibly South Korea) to visit companies, meet with international business executives, and learn more about these cultures. This trip allows students the opportunity to immerse themselves in the culture and lifestyle of different Asian countries.	Change title, description and credit hours.	

PSU Curricular Changes 2009-10

Fall 2009	N	CI	530	Teaching Struggling Adolescent Readers	3	Designed to help teachers to develop an understanding of adolescent readers within school settings, to expand their teaching repertoire, to assist struggling readers, and to organize plans that improve secondary literacy programs. Appropriate for classroom teachers, reading specialists, and administrators interested in adolescent literacy.		
Fall 2009	M	CI	573	Assessment and Technology in Early Childhood Education	3	Study of and experience with a range of developmentally appropriate assessment and technology strategies for use in diagnostic, formative, and summative evaluation of growth and development of young children and for appropriate educational decisions in early childhood education settings. Prerequisite: Undergraduate early childhood education coursework or teaching experience with young children.	Change title and description.	
Fall 2009	M	CI	590	Action Research Proposal	3	Designed to help educators see themselves as researchers so that they can conduct research in educational settings that contribute to the improvement of education. Knowledge of accessing and using research literature, the range of educational research paradigms and using appropriate research methods included. Students will develop a proposal for an action research project related to improving educational outcomes for all learners.	Change course number, title and description.	
Fall 2009	N	CI	591	Action Research Implementation	3	Implementation of action research project designed in CI 590. Discuss issues related to implementation of action research project designed in CI 590. Learn skills to analyze data collected during implementation of action research proposal from surveys, interviews, focus groups, observation, journaling writing and concept maps. Develop critical thinking abilities to analyze, synthesize and evaluate research results. Present final project in written paper. Prerequisite: CI 590 Action Research project.		
Fall 2009	M	Coun	579	Advanced Systemic Interventions: Couples and Families	3		Change credits from 2 to 3.	
Fall 2009	N	Ed	580	Adolescent Learners in Inclusive Settings	2	Focuses on principles of human learning and related practices for teaching in inclusive classrooms in the middle/high school setting. The psychology of learning in a school setting includes both individual and group generalizations, with an emphasis on the developmental tasks of adolescence. Examines the roles and functions of teachers as facilitators of learning, and as decision makers concerning pupil needs and achievement in inclusive middle/high school settings. Prerequisites: admission to SDEP.		
Fall 2009	N	Ed	581	Inclusive Classroom Researcher	2	Frames research questions concerning the principles, practices, promises, and problems of inclusive classrooms. Explores the philosophical and practical benefits of inclusive practices. Teacher networks, literature reviews and research design will provide the groundwork for collecting data throughout the program. Prerequisites: admission to SDEP.		
Fall 2009	N	Ed	582	Collaborative Teaming and the Special Education Process	4	Introduction to special education law and processes that prepares future teachers to actively participate, plan and facilitate IEP and school team meetings. Includes an overview of state and federal laws/regulations, the IEP process and special education service delivery systems. Explores collaborative teaming processes in middle and secondary school settings. Prerequisites: Psy 311 and admission to SDEP program.		
Fall 2009	N	Ed	583	Study Skills and Learning Strategies	2	Examines typical secondary class demands and instructional methods to enable students with disabilities and other low achievers to become independent learners. Emphasis on content enhancement tools to increase accessibility of content as well as instructional methods for teaching study skills and learning strategies. Includes models and methods for infusing this instruction into the secondary curriculum. Prerequisite: admission to SDEP program.		
Fall 2009	N	Ed	584	Advocacy and Transition Planning	2	Focuses on student support and advocacy, school-family collaboration and transition planning. Concepts and curriculum related to person-centered planning and teaching self-determination skills addressed. Examines collaborative skills needed to empower students, families, communities, service agencies, and other support systems and facilitate inclusive practices in secondary settings. Prerequisite: admission to SDEP program.		

PSU Curricular Changes 2009-10

Fall 2009	N	Ed	585	Instructional Planning for Inclusive Classrooms	4	Addresses principles and skills for organization and presentation of grades 6-12 inclusive classroom instruction. Includes: student needs analysis, unit planning using backward design, direct and indirect instructional techniques that incorporate state and national standards in teaching a diverse group of adolescent learners. Prerequisite: admission to SDEP program.		
Fall 2009	N	Ed	586	Collaborative Teaching	2	Students will study practices and techniques that enhance instructional collaboration and consultation among general education and special education teaching professionals. Models and methods for supporting students with disabilities in middle and secondary school general education classrooms will be explored. Prerequisites: Admission to SDEP and (Advocacy and Planning with Secondary Students, Collaborative Teaming).		
Fall 2009	N	Ed	587	Inclusive Educational Research & Leadership	2	Critically reviews the principles, practices, promises, and problems of inclusive education. Teacher candidate work samples, compilation and analysis of action research data, and educational leadership project provide culminating experiences blending the dual perspectives of general and special education and benefits of inclusive practices in teaching content to all students. Prerequisite: admission to SDEP program.		
Fall 2009	M	Read	519	Language Study for Teachers, K-12	3	In-depth knowledge in linguistics important to literacy teachers working with all students. Topics include fundamentals in: phonetics and phonology; morphology; syntax; semantics; pragmatics and language use in society; and classroom discourse. Gain important knowledge to facilitate instructional planning and delivery in phonetics instruction, vocabulary development, sentence structure, word meaning and choice in comprehension, questioning strategies, and textual structures for culturally diverse students.	Change credits from 1 to 3; change description.	
Fall 2009	N	Read	531	Teaching the Struggling Adolescent Reader	3	For middle and high school teachers who want to experience hands-on teaching and learning strategies for improving motivation and learning in the core subject areas. As part of a collaborative effort, teachers will work with each other to develop tutoring plans and activities in curriculum materials to be used in teaching struggling readers in their own classroom. Recommended prerequisites: enrollment in ReadOregon Reading Endorsement program or GSE Literacy or master's program.		
Fall 2009	M	Read	554	Literacy Instruction Strategies with ELL Students, K-12	3	Focuses on research-based effective literacy instruction frameworks and strategies for working with English language learners. Emphasis is placed on frameworks and strategies that promote ELL's academic and English literacy development in an authentic and culturally responsive environment.	Change credits from 1 to 3; change description.	
Fall 2009	N	Read	571	Principles/Methods of Diagnosis and Assessment K-12	3	Literacy theory (review/overview of the psychological, sociological, and linguistic foundations of reading processes and instruction, including developmental stages of literacy). Psychometrics (the science of measurement in the social sciences). Measures of reading proficiency and reading achievement (with specific examples of standardized reading measures and discrete-point reading proficiency measures). Authentic literacy assessment (with specific examples of authentic reading assessment tasks). Literacy assessment and students with special needs (English language learners, students with learning disabilities, talented and gifted students). Test ethics and how assessment results are used (including communication with various stakeholders). Recommended prerequisites: enrollment in ReadOregon Reading Endorsement program or GSE Literacy or master's program.		
Fall 2009	N	Read	580	School Reading Program Leadership	3	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.		
Fall 2009	N	Read	582	Reading Leadership in Middle and High Schools	3	Designed for administrators and teachers in leadership roles in middle and high schools. Explores ways to improve reading achievement in schools by identifying the school's existing strengths, apply current research and practice, and creating an action plan. Recommended prerequisite: enrollment in ReadOregon Reading Endorsement program or GSE Literacy or master's program.		

PSU Curricular Changes 2009-10

Fall 2009	N	SpEd	417	Introduction to Special Education	4	Provides an introduction to the field of special education and the use of evidence-based teaching practices in special education. Students explore particular career options of interest and participate in a community-based learning experience in public school settings with learners who are at-risk or have special education needs. Recommended prerequisite (or concurrent enrollment): Psy 311, SpEd 418.		
Fall 2009	N	SpEd	419	Principles of Special Education	3	Prepares students entering special education with basic knowledge, skills, and values necessary for future success in their profession. Major overview of theory and research underlying delivery of special education services in the public schools. Intensive study of career planning, graduate writing and research, information systems, current legislation, teaching and learning theory, curricular models, and professional ethics and standards. Recommended prerequisite (or concurrent enrollment): Psy 311, SpEd 418.		
Fall 2009	N	SpEd	571	Adolescents with Learning Differences	2	Explores the impact of various disabilities or other life experiences on learning and the developmental stage of adolescence. Examines what middle and high school teachers need to understand about students with learning differences and how they can provide support and accommodations. Prerequisite: admission to SDEP program.		
Fall 2009	N	CE	568/668	Advanced Methods in Hydrologic Systems Analysis	4	Principles in analysis of dynamic systems with specific emphasis on hydrologic model building. Variety of techniques in hydrologic system analysis with mathematical formulation, development and use of computer-based models for solving scientific and engineering problems are discussed. Among the topics presented will be the discussion of optimization theory, artificial intelligence, model calibration (parameter estimation), ensemble (probabilistic) forecasting, data assimilation and uncertainty analysis. Recommended prerequisites: CE 465/565 or similar course.		
Fall 2009	M	CS	161	Introduction to Computer Science I	4	Introduction to fundamental concepts of computer science. Problem solving, algorithm and program design, data types, loops, control structures, subprograms, and arrays. Learn to write programs in a high level programming language. Surveys current social and ethical aspects of computer science. Recommended prerequisite: Mth 111.	Change description and prerequisites.	
Fall 2009	M	CS	162	Introduction to Computer Science II	4	Introduction to programming using a high level programming language. Conditionals, I/O, Files, Functions, Classes, Pointers, Dynamic Memory, Linear Linked lists, and Multi Dimensional Arrays. Program correctness, verification, and testing. Prerequisite: CS106, or CS161, or prior programming experience.	Change description and prerequisites.	
Fall 2009	D	CS	200	Computer Systems Programming I	4			
Fall 2009	M	CS	201	Computer Systems Programming	4	Introduction to computer systems from a software perspective. Topics include: Basic machine organization, System programming using C and assembly language, Introduction to system programming tools (gcc, makefile, gdb), Data representation (bits & bytes, characters, integers, floating point numbers), Implementation of control flow, procedure calls, and complex data types at machine level, Linking and loading, Exceptions and interrupts, Process control and signals, System calls, File I/O, Timing and improving program performance, Introduction to memory hierarchy, dynamic memory allocation techniques. Prerequisite: CS 162.	Change title, description and prerequisites.	
Fall 2009	M	CS	202	Programming Systems	4	Students will become familiar with the language and operating system environment used in most upper division courses in the Computer Science major curriculum. Use of the file system, operating system calls, and shell-level programming; low-level debugging of high-level programs. Programming exercises will include applications of data structures and memory management techniques. Prereq: CS163.	Change prerequisites.	
Fall 2009	M	CS	250	Discrete Structures I	4	Introduces discrete structures and techniques for computing. Sets. Graphs and trees. Functions: properties, recursive definitions, solving recurrences. Relations: properties, equivalence, partial order. Proof techniques, inductive proof. Counting techniques and discrete probability. Corequisite: Mth 251.	Change description and prerequisites.	
Fall 2009	M	CS	251	Discrete Structures II	4	Continuation of CS 250. Logic: propositional calculus, first-order predicate calculus. Formal reasoning: natural deduction, resolution. Applications to program correctness and automatic reasoning. Introduction to algebraic structures in computing. Prerequisite: CS 250.	Change description.	

PSU Curricular Changes 2009-10

Fall 2009	M	CS	300	Elements of Software Engineering	4	Practical techniques of program development for medium-scale software produced by individuals. Software development from problem specification through design, implementation, testing, and maintenance. The fundamental design techniques of step-wise refinement and data abstraction. A software project will be carried through the development cycle. Prerequisites: CS 163, 201, 202.	Change prerequisites.	
Fall 2009	N	CS	313	Artificial Intelligence and Game Design	4	Study of the basic principles of computer game design, the most popular techniques and technologies for game implementation, focusing on the many ways in which advances in artificial intelligence influences game design. Recommended prerequisite: CS 250 and computer programming experience.		
Fall 2009	M	CS	333	Introduction to Operating Systems	4	Introduction to the principles of operating systems and concurrent programming. Operating system services, file systems, resource management, synchronization. The concept of a process; process cooperation and interference. Introduction to networks, and protection and security. Examples drawn from one or more modern operating systems. Programming projects, including concurrent programming. Prerequisites: CS 201, 311.	Change prerequisites.	
Fall 2009	N	CS	345	Cyberculture: The Internet and Popular Culture	4	Study of the effect of computers and the internet on popular culture. Typical topics include history and technologies of the web, social networks, the long tail in business and culture, the power of groups, user generated content, complex systems, virtual worlds and the power of search. The course may not be used as one of the upper-division CS electives for the BS degree in Computer Science.		
Fall 2009	N	CS	346	Exploring Complexity in Science and Technology	4	Introduction to Complex Systems, an interdisciplinary field that studies how collections of simple entities organize themselves to produce complex behavior, use information, and adapt and learn. Focuses on common principles underlying complexity in science and technology, and includes ideas from physics, biology, the social sciences, and computer science. The course may not be used as one of the upper-division CS Electives for the BS degree in Computer Science.		
Fall 2009	N	CS	347	The Internet Age	4	Examination of the Internet and its evolution over the last 30 years to become an essential part of today's society. Also examines the impact the Internet has had on society as well as potential threats to its continued success. The course may not be used as one of the upper-division CS Electives for the BS degree in Computer Science.		
Fall 2009	N	CS	348	Digital Media and Society	4	Covers, from a computing perspective, the transition of society to one that is primarily digital. Provides an understanding of digital media, its technical limitations, copyright and digital rights management, and digital media communications. The course may not be used as an upper-division CS Elective for the BS degree in Computer Science.		
Fall 2009	M	CS	386	Introduction to Databases	4	Introduction to fundamental concepts of database management with the relational model. Schema design and refinement, query languages, transaction management, security, database application environments, physical data organization, overview of query processing, physical design tuning. Prerequisites: CS 161 or 162, 250. Recommended Prerequisites: CS251.	Change prerequisites.	
Fall 2009	M	CS	465/565	Construction and Analysis of Web-Based Applications	4,3	Covers the basics of writing both CGI-Bin and client-side scripts for the World Wide Web. Topics include the Client-server Model used by the World Wide Web; server-side programming; client-side programming; security and accessibility concerns; HTTP protocols; and human-interface issues on the World Wide Web. Recommended prerequisites: programming ability equivalent to CS161 as well as familiarity using UNIX or Linux, and some familiarity with creating simple HTML files. The course may not be used as part of the departmental degree requirements for either the BS or the MS degrees in Computer Science.	Change description and prerequisites.	

PSU Curricular Changes 2009-10

Fall 2009	M	CS	487, 488	Software Engineering Capstone	3,3	Emphasizes teamwork in small groups on a substantial project that will be performed for a real customer. Projects are chosen so as to provide interdisciplinary content with project proposals being solicited from the community at large. Projects that involve students as well as customers from other disciplines are encouraged. Lectures will be directed toward the management of software development projects such as those being carried out by the teams. It is the intent of the course to provide a capstone experience that integrates the materials contained in the remainder of the CS curriculum through work on a project that applies this material in another discipline. Each team member will contribute to the design, documentation, and testing phases of the project. This course creates an obligation for participation for two consecutive quarters. Prerequisites: senior standing. For CS majors: CS 201, 202, 250, 251, 300, 311, 321, 333, 350. Non-CS majors: permission of the instructor.	Change prerequisites.	
Fall 2009	N	CS	497/597	Sensor Networks	4,3	Foundations of sensor networks, with a focus on activity-based learning through a sequence of hands-on programming exercises with embedded devices with a high-level programming language. Basic building blocks in designing and deploying a sensor network application. Positioning and time synchronization of networked sensor devices, wireless communication characteristics of low-powered radios, energy conservation and harvesting, macro-programming a network of sensor devices and security. Recommended prerequisites: Familiarity with computer systems concepts that could be satisfied by CS200/201. Familiarity with programming in C, C++ or Java. Familiarity with basic concepts in probability and linear algebra that could be satisfied by MTH 301 or equivalent.		
Fall 2009	N	ECE	101	Exploring Electrical Engineering	4	Freshman introductory course for students interested in electrical engineering. Students learn the design process, 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 career opportunities in electrical engineering.		
Fall 2009	N	ECE	102	Engineering Computation	4	Developing algorithms for solving simple engineering problems. Writing multiple short programs. Application of computational engineering software tools. Presenting technical content. Lectures, assignments and projects. Recommended prerequisites: ECE 101, Mth 112.		
Fall 2009	N	ECE	103	Engineering Programming	4	Software design, algorithms, data structures, and computation using the C programming language. Interfacing to sensors, actuators and other hardware. Writing documentation and presenting technical content. Recommended prerequisites: ECE 102, Mth 112.		
Fall 2009	M	ECE	221	Electric Circuit Analysis I	3	Introduction to the basic methods of circuit analysis including Kirchhoff's laws, resistive circuits, techniques of circuit analysis, operational amplifiers, and energy storage elements. Prerequisites: ECE 102, Mth 252. Co-requisite: ECE 201.	Change title, credit hours from 4 to 3, description and prerequisites.	
Fall 2009	M	ECE	222	Electric Circuit Analysis II	3	Introduction to the dynamic response of circuits and sinusoidal steady state analysis. Includes phasor analysis, linear transformers, ideal transformers, power calculations, and balanced three-phase circuits. Prerequisite: ECE 221, ECE 201. Co-requisite: ECE 202.	Change title, credit hours from 4 to 3, description and prerequisites.	
Fall 2009	M	ECE	223	Electric Circuit Analysis III	3	Introduction to the Laplace Transform for circuit analysis. Design of analog filters, transfer function analysis, Bode plot analysis, and pole-zero diagrams. Prerequisite: ECE 221, ECE 201. Recommended prerequisite: ECE 222, ECE 202.	Change title, credit hours from 4 to 3, description and prerequisites.	
Fall 2009	M	ECE	271	Digital Systems	4	Second course in a sequence of digital and microprocessor courses. Covers shift register devices and circuits; design, timing analysis, and application of synchronous state machine circuits using discrete devices and programmable logic devices; timing analysis of asynchronous state machines, arithmetic circuits and devices; internal architecture of a microprocessor; design and interfacing of memory systems; and an introduction to design for test techniques. Reinforces the systematic design methodology, documentation standards, and use of computer-based, tools introduced in ECE 171; weekly laboratory. Prerequisites: ECE 171.	Change prerequisites and credit hours from 5 to 4.	

PSU Curricular Changes 2009-10

Fall 2009	M	ECE	311	Feedback and Control	4	Classical control concepts for continuous-time, time-invariant, linear systems. Signal flow graphs. Routh-Hurwitz criterion, steady-state and root-locus analysis methods. Compensation methods derived from Bode plots. Software assignments for design and verification of controllers. Prerequisite: ECE 223, Mth 256.	Change description, prerequisites, credit hours from 5 to 4, laboratory hours.	
Fall 2009	N	ECE	312	Fourier Analysis	4	Software design, algorithms, data structures, and computation using the C programming language. Interfacing to sensors, actuators and other hardware. Writing documentation and presenting technical content. Recommended prerequisites: ECE 102, Mth 112.		
Fall 2009	M	ECE	321	Electronics I	3	Introduction to solid state electronics, leading to the physical properties and characteristics of solid state electronic devices: diodes, bipolar junction transistors and field effect transistors. Analysis and design of rectifier topologies and biasing circuits. Application of a computer-aided design (CAD) tool, such as SPICE. Prerequisite: ECE 223, ECE 203.	Change description, prerequisites, credit hours from 4 to 3.	
Fall 2009	M	ECE	322	Electronics II	3	Ideal and non-ideal OPAMP circuits; Analysis of electronic amplifiers using small-signal models of electronic devices; Differential and operational amplifier design techniques involving current mirrors and active loads; Frequency response of analog circuits; Computer-aided design. Prerequisite: ECE 321, ECE 301.	Change description, credit hours from 4 to 3.	
Fall 2009	M	ECE	323	Electronics III	3	Feedback topologies. Design and analysis of sinusoidal waveform generators. Introduction to phase-locked loops. Study of digital circuits used in various logic families. Computer-aided design. Prerequisite: ECE 322, ECE 302.	Change description, prerequisites, credit hours from 4 to 3.	
Fall 2009	N	ECE	325	Distribution and Sustainable Energy Systems	4	Software design, algorithms, data structures, and computation using the C programming language. Interfacing to sensors, actuators and other hardware. Writing documentation and presenting technical content. Recommended prerequisites: ECE 102, Mth 112.		
Fall 2009	M	ECE	331	Engineering Electromagnetics I	4	Fundamentals of electromagnetics including review of vector calculus, Maxwell's equations for time harmonic fields, plane wave propagation and reflection, and waveguide structures. Prerequisites: Mth 254, Mth 256, Ph 223 or Ph 213.	Change description.	
Fall 2009	M	ECE	332	Engineering Electromagnetics II	4	Application of Maxwell's equations to transmission lines, antennas, and problems in electro/magneto statics. Topics in wave propagation such as scattering, optics, principles of radar, signal integrity and mathematical solution techniques; weekly lab. Prerequisites: ECE 331.	Change description, credit hours from 5 to 4.	
Fall 2009	N	ECE	373	Embedded Operating Systems & Device Drivers	5	Extends the microprocessor interfacing skills gained in ECE 372 to the design of hardware and device drivers for a microprocessor system with an embedded operating system. After a brief introduction to the basic structure and operations of the Linux OS, students will gain extensive practice developing Linux device drivers for a wide variety of hardware devices. Course will also include discussions of security and power management techniques commonly used in embedded microprocessors systems. Prerequisites: ECE 372 or co-requisite CS 333.		
Fall 2009	M	ECE	411	Industry Design Processes	4	Prepare students for ECE 412 Senior Project Development I and ECE 412 Senior Project Development II classes. Topics covered include: design documentation standards; building and managing effective teams; product development steps; developing and presenting project proposals; the design process; project scheduling and management; intellectual property, non-disclosure agreements, and professional ethics; design for X, design for manufacturing, design for the environment; contemporary issues in engineering; lifelong learning. Class consists of lectures and a small team-based term project. Prerequisites: senior standing in the University and completion of all junior-level required ECE classes. For non-ECE majors, consent of the instructor.	Change description, credit hours from 2 to 4, lecture hours.	
Fall 2009	N	ECE	435/535	Radar and Sonar Processing		Introduction to radar and sonar processing including detection and estimation theory, array processing, and signal propagation models. Course will concentrate on physics-based processing techniques applied to real systems with application to remote sensing, underwater sonar and medical imaging. Pulsed systems and spectroscopy may also be covered in the context of terahertz sensing. Coursework will involve readings from current scientific journals and MATLAB data processing. Prerequisites: ECE 331, 332.		

PSU Curricular Changes 2009-10

Fall 2009	N	ECE	436/536	Applications in Electromagnetics, Optic, and Acoustics		Introduction applications of electromagnetics (EM), optics, and acoustics in engineering fields. Specific topics will change, but may include (EM): antenna design, electromagnetic interference, microwave and terahertz sensing, waveguide design, and wireless communications; (optics) lasers and LEDs, holography, diffraction and scattering; (acoustics) commercial audio, underwater acoustics, medical ultrasound, and active noise control. Course content will consist of project-based laboratory activities and reading assignments from current publications. Prerequisites: ECE 331, 332.		
Fall 2009	N	ETM	534/634	Technology Roadmapping	4	Introduces Technology Roadmapping (TRM), which provides a structured approach for exploring and communicating the relationships between evolving and developing markets, products and technologies over time. Roadmaps allow technology developments to be integrated with business planning, and the impact of new technologies and market developments to be assessed. Roadmaps also seek to capture the environmental landscape, threats and opportunities for a particular group of stakeholders in a technology or application area.		
Fall 2009	N	ETM	543/643	Front End Management for New Product Development	4	Provides students with an understanding of the activities and challenges of managing the early stages of new product development, the so-called "fuzzy front-end". It covers concepts, methods and tools for bridging the gap between strategic planning and new product development, for identifying opportunities, for generating and selecting product ideas, for developing product concepts, and for selecting new product development projects.		
Fall 2009	N	ETM	556/656	User-Centered Innovation	4	Introduction to the various strengths and weaknesses of approaches to innovation. Focuses on a customer-driven methodology and introduces the increasingly prominent role of design in creating memorable experience, and emotional connection with a product and/or a company.		
Fall 2009	N	ETM	559/659	Global Management of Technology	4	Explores issues associated with the management of technology-driven industries in a global setting. Strategic planning and management of technological innovation and commercialization are explored in selected countries, using processes in the US as benchmarks. A specific objective of this course is to explore ways to manage the development of competitive products or services, using project teams focused on one or more countries.		
Fall 2009	N	ETM	562/662	New Venture Management	4	Explores actual emerging technologies that are likely to impact or create technology-based industries in the next 1-5 years, and gives a framework for identifying, analyzing, acquiring, implementing and finally commercializing leading-edge technologies into new products or services.		
Fall 2009	N	ETM	563/663	Intrepreneurship in Technology	4	The development of new products and services is fundamental to sustaining a long-term competitive advantage. The efforts of the individual or team of entrepreneurs who are responsible for this activity become even more complex when the activity must be carried out inside an existing on-going business. Explores a procedural framework, along with typical issues often encountered such as resources, timing, political conflicts, bureaucracy, and other obstacles that must be overcome to succeed in developing products within an existing company. Recommended prerequisites: ETM 555/655 and ETM 535/635.		
Fall 2009	N	ETM	567/667	Knowledge Management	4	Introduction to some of the critical issues and debates in knowledge management. Stresses the human and business aspects of knowledge management. Taught from the perspective of the user of technical tools and methods.		
Fall 2009	N	ETM	570/670	Role of Government in Technology Management	4	In their desire to grow their nation's economies, governments often play an enormous role in fostering and regulating technology-related industries. Explores the connection between the GDP and its growth that is driven by technology and technology businesses.		
Fall 2009	N	ETM	571/671	Managing Emerging Technologies	4	Explores 10 current emerging technologies that are likely to impact or create technology business industries in the next 5-10 years. Develops a framework for identifying, analyzing, implementing and finally commercializing leading-edge technologies into new products or services or services.		

PSU Curricular Changes 2009-10

Fall 2009	N	ETM	573/673	Management of Intellectual Capital	4	Learn strategies that technology companies use to maximize profits through intellectual capital, with a focus on legally protected intellectual property. Understand that companies in different industries require different strategies. Learn how to research a company's intellectual capital and prepare an appropriate intellectual capital management plan.		
Fall 2009	M	ME	350	Numerical Methods in Engineering	4		Change course number from ME 352.	
Fall 2009	D	ME	372	Engineering Metallurgy	4			
Fall 2009	M	ME	422/522	Building Energy Use Modeling	4	Analysis of annual energy use of residential and commercial buildings. Emphasis on computer simulation techniques for analysis of building energy use and study of energy-efficient building design. Topics include: heat loss and gain in buildings, heating and cooling load calculations, energy use analysis, daylighting in commercial buildings, energy efficiency, green building technologies, and modeling for energy code compliance. Project in design/simulation.	Change title, description and prerequisites.	
Fall 2009	N	ME	426/526	Solar Engineering	4	Overview of solar energy and its applications. Solar resources, solar economics, collector technology, solar thermal systems, power generation, industrial applications, thermal storage, photovoltaics, and design of systems for effective utilization of solar energy. Prerequisite: ME 323.		
Fall 2009	N	ME	454/554	Controls Engineering Laboratory	4	Design, construction and implementation of continuous controllers using analog devices. Experimental identification of the dynamic properties of mechanical systems. Digital controllers introduced, implemented and compared with the corresponding continuous controllers. Recommended prerequisite: ME 453/553. Prerequisite: ME 452/552.		
Fall 2009	N	OMSE	514	Computing Foundations	3	Introduction to the building blocks of a basic computing machine including the central processing unit, data transfer buses, registers, program counters, various types of memories, and instruction sets. A range of processor architectures and organizations including pipelining, virtual memory and caching are explored. Also explores the principles of operating systems and how they relate to the underlying hardware structures as well as concurrency, process synchronization, process scheduling, memory management, interrupt handling, and device management. Basic understanding of C or C++ required.		
Fall 2009	N	OMSE	515	Software Foundations	3	Introduction to fundamental language constructs including pointers, recursion and abstraction, and the principles of algorithmic analysis and Big-O notation. Progressively explores several foundation data structures and algorithms including linked lists, trees, hashing, and graphs which are illustrated using C, C++ and Java code fragments. Introduces selected topics in statistics and discrete mathematics, in particular, sets, set operations, propositional calculus, first-order predicate calculus and finite state machines. Registration requires permission of the OMSE program office. Recommended prerequisite: Mth 112.		
Fall 2009	N	OMSE	516	Software Process Improvement	3	Learn how to effectively introduce improvements to software engineering processes in their organization. Designed to help the student successfully discover and improve software engineering practices in such areas as software requirements, architecture, design, coding, integration and testing. Technical issues are emphasized but balanced with real-world considerations including organizational politics, corporate culture, and psychology. Prerequisite: OMSE 500.		
Fall 2009	N	Arch	101	Introduction to Environmental Design	4	Concepts and theories of the fields of environmental and sustainable design. Includes a study of perceptual, technical, and philosophical concepts of natural and built resources. Open to non-majors.		
Fall 2009	M	Arch	120	Visual Communication 1	4		Change title.	
Fall 2009	N	Arch	121	Visual Communication 2	4	Develops skills in graphic visualization, representation, and communication as used in architecture and related design fields. Concepts and conventions, from freehand to digital media and production, used as a means to imagine, develop and represent design ideas. Prerequisite: Arch 120.		
Fall 2009	M	Arch	280, 281	Design Fundamentals Studio 1, 2	6,6		Change course number from 180, 181 and title.	

PSU Curricular Changes 2009-10

Fall 2009	M	Arch	360, 361, 362	Building Tectonics 1, 2, 3	4,4,4	A three-quarter sequence introducing technologies involved in the design and construction of buildings. Topics include construction materials and methods, envelope design, mechanical systems, thermal, and other environmental building systems. Courses must be taken in sequence. Prerequisites: Arch 281.	Change title and prerequisites; add Arch 362 to sequence.	
Fall 2009	N	Arch	362	Building Tectonics 3	4	A three-quarter sequence introducing technologies involved in the design and construction of buildings. Topics include construction materials and methods, envelope design, mechanical systems, thermal, and other environmental building systems. Courses must be taken in sequence. Prerequisites: Arch 281.		
Fall 2009	M	Arch	380, 381, 382	Architectural Design Studio 1, 2, 3	6,6,6	Studio investigations of fundamental design concepts, issues, and process. Projects and exercises focusing on the concepts of making three-dimensional forms—organization, proportion, scale, human activities, and introductory site and building design relationships. The release of the student's potential creative capabilities is a primary concern for the course. Includes individual criticism, lectures, and seminars. Courses must be taken in sequence. Prerequisites: Arch 281.	Change course number from 280, 281, 282; change title and prerequisites.	
Fall 2009	M	Arch	450/550	Advanced Architectural Structures	4		Change course number to Arch 467/567.	
Fall 2009	M	Arch	467/567	Advanced Architectural Structures	4	A workshop and seminar based course addressing the design and construction of large-scale structural systems. Investigates the innovative use of traditional and non-traditional building materials and structural detailing, exploring the potential of visually expressive structural systems through a series of working models. Architectural precedent and nature's engineering will be studied to gain insight into the correlation of form and structure. Prerequisites: Arch 362.	Change course number from Arch 450/550, prerequisites.	
Fall 2009	M	Arch	480, 481, 482	Architectural Design Studio 4, 5, 6	6,6,6	Studio investigations of architectural designs based on supporting human activities, structure, and theory. Continued study of design process and methods encompassing concepts of architecture, landscape architecture, and interior design. Includes individual criticism, lectures, and seminars. Courses must be taken in sequence. Prerequisites: Arch 381 or 382.	Change course number from Arch 380, 381, 382, title and prerequisites.	
Fall 2009	M	Arch	480/580, 481/581, 482/582	Architectural Design Studio VII, VIII, IX	6,6,6		Change course number, separate UG and Grad courses.	
Fall 2009	M	Arch	580, 581, 582	Architectural Design Studio 7, 8, 9	6,6,6	Advanced investigations of architectural and urban design issues in concluding series of studios. Projects include the design of private and public buildings which require comprehensive, integrative design development. Includes individual criticism, lectures, and seminars. Courses must be taken in sequence. Prerequisites: Arch 481.	Change title, prerequisites: separate grad course from UG.	
Fall 2009	N	ArH	498	Contemporary Art I	4	Exploration of major developments in the art world from the late 20th century. Origins of contemporary art, the transition from Modernism to Post-Modernism, important themes in contemporary art, and issues facing the practicing artist of today, in the US and globally. Prerequisite: ARH 206. Recommended prerequisites: ArH 491, 492, 493.		
Fall 2009	M	ArH	499	Contemporary Art II	4	A thematic examination of historical dimensions of contemporary art practices in the 21st century. Explores themes, movements and trends as much as individual artists or works of art. Places art into a broad historical and social context, and looks at cross-cultural and interdisciplinary connections. Prerequisites: ArH 206. Recommended prerequisites: ArH 492, 493, 498.	Change title, description and separate UG course from Grad.	
Fall 2009	N	ArH	598	Contemporary Art I	4	Exploration of major developments in the art world from the late 20th century. Looks at origins of contemporary art, the transition from Modernism to Post-Modernism, important themes in contemporary art, and issues facing the practicing artist of today, in the U.S. and globally. Prerequisites: Graduate standing in the MFA program.		
Fall 2009	M	ArH	599	Contemporary Art II	4	A thematic examination of historical dimensions of contemporary art practices in the 21st century. Explores themes, movements and trends as much as individual artists or works of art. Places art into a broad historical and social context, and looking at cross-cultural and interdisciplinary connections. Prerequisites: Graduate standing in the MFA program. Recommended prerequisites: ARH 591, 592, 593, 598.	Change title, description, separate from UG course.	

PSU Curricular Changes 2009-10

Fall 2009	M	Art	227	Introduction to Art and Social Practices	4	Introduces an interdisciplinary approach to understanding and producing social practice art projects. Students will be encouraged to use a wide range of media and approaches in responding to various class assignments. Exploration of the PSU and Portland community will be an essential part of the class. The students will create work that responds to the dynamics of social spaces and public environments. Recommended prerequisites: Art 112. Maximum 4 credits. Open to non-majors.	Change prerequisites.	
Fall 2009	M	Art	327	Intermediate Art and Social Practices	4	For this class students will choose a dept on campus that is not the art dept and will become "artists in residence" for that dept during the quarter. They will work with people in their selected departments to create projects that respond to the department's qualities, needs and interests. Students will document their process and projects, and will be graded on engagement in class and with their depts., journals, and projects. Recommended prerequisites: Art 227. Recommended that it be taken in sequence. Open to non-majors.	Change prerequisites.	
Fall 2009	M	Art	427	Advanced Art and Social Practices	4	For this class the students will work outside of the PSU campus. The class will select a particular area of Portland, or a specific institution like a high school or senior center. The students will then become "artists-in-residence" in that area or institution. The students will keep journals documenting information presented in the class, personal project ideas, etc. General class engagement and journal writing will form the basis for grades. Prerequisites: Art 227 or Art 327 or consent of instructor. Open to non-majors.	Change prerequisites.	
Fall 2009	N	Art	430	Critical Art Theories II	4	Artwork and artists of the 21st century are examined with in the context of contemporary art theory. A thematic rather than a chronological approach will be used when examining theoretical, philosophical and socio-cultural aspects. Material will be presented through in-class instruction and field trips. Prerequisite: Art 330 and non-majors must have departmental or instructor's consent.		
Fall 2009	N	Art	530	Critical Art Theories II	4	Artwork and artists of the 21st century are examined with in the context of contemporary art theory. A thematic rather than a chronological approach will be used when examining theoretical, philosophical and socio-cultural aspects. Material will be presented through in-class instruction and field trips. Prerequisite: Graduate standing in the MFA program.		
Fall 2009	M	Art	514, 515	Art Methods for Secondary School Teachers	4,4	Methods and materials for teaching and coordination of art programs in grades 5-12, with an emphasis on organizing historical, aesthetic, critical and studio demonstrations, lectures, and classroom/model presentations. Translating theory(ies) into practice(s) will be a continuing and ongoing focus of the classes in lessons, research and readings. Students will develop Art lessons and programs that reflect current state and national standards. Art 514 is an introduction to the history of Art Education, the methods of instruction, philosophy of art education, and organization of art materials and tools. Art 515 explores the current best practices and issues in Art Education, technology (media-computer) application to art, continuing research/issues in art education, Practical and contemporary issues in public/private education. Prerequisite: Admission into the Art Education GTEP program. Open to non-majors with instructor's consent.	Change course number, title description, credits from 3 to 4, drop art 516 from sequence.	
Fall 2009	D	Art	516	Art in the Secondary Schools	3		Drop from Art 514, 515, 516 sequence.	
Fall 2009	N	Art	580	Studo Practices: Directed Studies	4	Tutorial and directed study in studio production with a supervising faculty member. In-depth discussions and assessment of graduate student's studio work-in-progress in relation to contemporary art practices and criticism, historical practices, technical and formal concerns and/or related interdisciplinary interests. Directed assignments and course of study will be given as appropriate. May be repeated for credit. Maximum credits 40. Required for MFA. Prerequisite: graduate standing.		

PSU Curricular Changes 2009-10

Fall 2009	N	Art	581	MFA Graduate Seminar I: Special Topics in Contemporary Art	2	Examines selected issues in contemporary art and culture. The given instructor's current research interests determine course material. Examples of topics include: post-colonialism and Diaspora; issues in feminism; gender and queer studies; modernisms and modernity; new technologies and digital culture; autobiography and memoir; cultural production and censorship; globalism and new economies of art. Course format consists of assigned readings, discussion and a writing component. Field trips, student presentations, screenings and assigned lectures may also be included. May be repeated for credit. Maximum credits 4. Required for MFA. Prerequisite: graduate standing.		
Fall 2009	N	Art	582	MFA Graduate Seminar II: Writing and Research	2	Explores the role of writing and research in contemporary art practice. Course materials include library research and developing bibliographies relevant to students' studio practice, discussion of methodologies and practices of contemporary art production. Preparatory course for written component of the MFA exhibition project: second-year students are expected to develop an abstract and outline for their exhibition project. May be repeated for credit. Maximum credits 4. Required for MFA. Prerequisite: graduate standing.		
Fall 2009	N	Art	583	MFA Graduate Seminar III: Teaching Visual Culture	2	Explores teaching at local and national institutions as preparation for teaching in higher ed. This seminar includes curriculum development, syllabi development, assessment, educational objectives reading and discussion of post-modern theory and other matters in the area of art education and visual culture. Required for MFA. Maximum credits 2. Prerequisite: graduate standing.		
Fall 2009	N	Art	584	Social Practice: Directed Studies	4	Tutorial and directed study in social practice production with a supervising faculty member. In-depth discussions and assessment of graduate student's work-in-progress in relation to contemporary art practices and criticism, historical practices, technical and formal concerns and/or related interdisciplinary interests. Directed assignments and course of study will be given as appropriate. May be repeated for credit. Maximum credits 20. Required for MFA. Prerequisite: graduate standing.		Corequisite to Art 598.
Fall 2009	M	Art	585	MFA Graduate Seminar IV: Professional Practices	2	Explores practical issues of career development for professional artists including preparing a portfolio, grant writing, C.V. writing, applying for teaching positions and residencies, working with museums and galleries, working in and with public, nonprofit and community arts organizations. The course includes guest speakers and individual research projects. Required for MFA. Prerequisite: graduate standing in MFA.	Change title and description.	
Fall 2009	N	Art	586	Visiting Artist Program/Group Critique	2	A critique-based course focusing on the studio production of the individuals enrolled. Students are expected to help foster and develop an environment for serious and sophisticated peer review. The work of visiting artists will be presented. Visiting artists participate in group critiques, as well as conduct individual studio critiques. May be repeated for credit. Maximum credits 12. Required for MFA. Prerequisite: graduate standing.		
Fall 2009	N	Art	587	Exhibition Project	4	Tutorials and directed study in developing a final MFA exhibition project. Conduct supporting research and studio production with approval of the students' individual MFA advisor, Exhibition committee chair and committee members. Required for MFA. Maximum credits 4. Prerequisite: graduate standing.		
Fall 2009	N	Art	598	Social Practice: Workshop	2	This course is a co-requisite to Art 584 Social Practice: Directed Studies. In this workshop the focus will be on the creative aspects involved in social practice rather than theory. Formulate and work on collaborative public projects, discuss the creative aspect and practical application of art and social practice. May be repeated for credit. Maximum credits 20. Required for MFA. Prerequisite: graduate standing.		Co-requisite to Art 584.
Fall 2009	N	Art	599	Exhibition Critique	2	Public presentation of MFA exhibition project and MFA exhibition lecture; production of written MFA exhibition statement with the student's individual MFA advisor, graduate faculty and graduate program coordinator. Required for MFA. Prerequisite: graduate standing. Maximum credits 2.		
Fall 2009	M	MuEd	422/522	Instrumental Literature and Rehearsal Techniques I	2		Change credits from 3 to 2.	
Fall 2009	M	MuEd	423/523	Instrumental Literature and Rehearsal Techniques II	2		Change credits from 3 to 2.	

PSU Curricular Changes 2009-10

Fall 2009	N	MuEd	424/524	Intrumental Literature and Rehearsal Techniques III	2	Discussion of organization and administration strategies utilized in a typical high school instrumental program. Topics will include, travel, booster organizations, fundraising, marching and maneuvering including computerized field show design. Prerequisites: Mus 321, MuEd 328, MuEd 335.		
Fall 2009	M	MuP	590	Applied Music	1-2	Individual instruction in organ, piano, harpsichord, voice, guitar, conducting, and orchestral and band instruments. Maximum: 12 credits. Prerequisite: audition.	Change description.	
Fall 2009	M	Mus	420/520	Analytical Techniques	3		Change course number to Mus 422, change description, separate grad from UG course.	
Fall 2009	M	Mus	422	Analytical Techniques	3	Study of the formal structure of musical compositions of various styles with the purpose of discovering the sources of unity, variety, order, and expression present in them. Prerequisite: Mus 311.	Change course number from Mus 420, description.	
Fall 2009	M	Mus	481/581, 482/582, 483/583	Pedagogy	3,3,3		Separate GR from UG course.	
Fall 2009	M	Mus	520	Analytical Techniques	3	Study of the formal structure of musical compositions of various styles with the purpose of discovering the sources of unity, variety, order, and expression present in them. Prerequisite: Successful completion of the department's graduate entrance examination.	Change description; separate GR from UG course.	
Fall 2009	M	Mus	581, 582, 583	Pedagogy	3,3,3	Methods, materials, curriculum, and philosophical bases for teaching in a private studio and classroom with focus on individual and group instruction. Prerequisite: graduate standing in music.	Change description; separate GR from UG course.	
Fall 2009	M	TA	104	Dance Appreciation	4	Develop an awareness and appreciation of dance in its artistic, social and cultural contexts through a variety of experiences, viewing and participating in dance. Will cover the basic roles in dance along with concepts and principals such as space, time and effort as well as expression, form, style and period.	Change course number and description.	
Fall 2009	N	TA	304	Dance Appreciation	4	Develop an awareness and appreciation of dance in its artistic, social and cultural contexts through a variety of experiences, viewing and participating in dance. Covers the basic roles involved in dance along with concepts and principals of dance such as space, time and effort as well as expression, form, style and period. Prerequisite: Upper-division standing.		
Fall 2009	N	TA	331	Understanding Movies	4	An intermediate course in film appreciation with special emphasis on cinema as a dramatic art. Elements to be considered will include cinematography, performance, edited image, and sound. Selected films will be shown. Recommended prerequisite: upper-division standing.		
Fall 2009	N	TA	352	Dance Choreography	4	Exploring compositional devices and craft unique to group choreography. Choreographing and producing a dance in a performance setting. Recommended prerequisites: TA 350, TA 351.		
Fall 2009	N	TA	361	Theater Appreciation	4	An intermediate course in the art of the theater: acting; directing; playwriting; and, design. Special emphasis on theater as a performing art today, not the history or origins of the theater. Course involves in part, attendance at live performances in the Portland area. Prerequisite: upper-division standing.		
Fall 2009	N	TA	365	Classic Movies	4	An intermediate study and analysis of representative films with special emphasis on the importance of directorial concept and the screenplay. Relationships between film and theater will be examined. Recommended prerequisites: upper division standing.		
Fall 2009	N	TA	486/586	Topics in Film and the Moving Image	4	Concentrated study of genre, structure and style of a particular period, topic and/or figure in film and the moving image; for example, 1970's Film & TV Renaissance, Irish Cinema, and/or Robert Altman. Prerequisites: TA 131 and upper division standing.		
Fall 2009	N	TA	580	Film Theory	4	A survey of film theory and criticism from their inception to the present day. Students are introduced to key concepts and major figures from Classical Film Theory (Eisenstein, Arnheim, Bazin) through Structuralism, Semiotics, Psychoanalysis, Feminism, and Cognitive Studies. Pre-req: TA 131 and Junior standing, or consent of instructor.		Associate with TA 480 as slash course.
Fall 2009	N	Anth	435/535	Visual Anthropology	4	Examination of visual representation and visual research in Sociocultural Anthropology with a focus on photographic images, ethnographic films, and mass media. Recommended prerequisite: 8 credits of sociocultural anthropology (Anth 304, 305 strongly recommended). Upper-division standing required.		

PSU Curricular Changes 2009-10

Fall 2009	N	Anth	520	Policy Paper	4	For students completing the policy track within the department's M.A. program. Preparing a graduate level paper, 25-30 pages in length, based on the student's internship experience and the relevant policy topic they are exploring. Student meets regularly with their faculty advisor. Prerequisite: Anth 504.		
Fall 2009	N	Ling	559	Introduction to Graduate Study in Applied Linguistics	2	Introduction to graduate study in applied linguistics with an emphasis on critical reading, writing, and research skills needed for success in the MA TESOL program. Recommended prerequisite: Post-bac status.		
Fall 2009	M	Bi	358	Evolution	4	Examination of processes underlying evolutionary change and patterns of biodiversity generated by these processes. Introduction to elementary population genetics, quantitative genetics, and phylogenetics. Emphasizes methods of reasoning and experimentation used in evolutionary research. Recommended prerequisite: Bi 341.	Change course number from Bi 426, separate UG and Gr slash courses.	
Fall 2009	M	Bi	526	Principles of Evolution	4	Lectures and discussions on advanced topics in evolutionary biology; evaluation of historical and current trends in this field. Recommended prerequisite: Bi 358 or equivalent.	Change title, description.	
Fall 2009	M	Bi	426/526	Evolution	4		Separate GR from UG course; change course numbers to Bi 358 and Bi 526, change Bi 526 title and description.	
Fall 2009	M	Bi	431/531	Recombinant DNA Techniques Laboratory	2	Laboratory of recombinant DNA and molecular cloning techniques. Prerequisite: Bi 235. Co-requisite: Bi 430/530.	Change prerequisites.	
Fall 2009	M	Bi	461/561	Invertebrate Zoology	5	A survey of invertebrate animal diversity, with a focus on species of the Pacific Northwest. Emphasis on evolution of adaptations in anatomy, physiology, and behavior. Two 2-hour lectures, one 3-hour laboratory, with some field trips outside of class time. Recommended prerequisite: one year of introductory biology.	Change title and description.	
Fall 2009	N	Bst	325	Race and Ethnicity in Latin America	4	Focus on the experiences of people of African descent in Latin America through the theoretical and empirical research on race and ethnicity in the region. Topics include regional and national variations concerning racial and ethnic identity and the intersection of race/ethnicity, gender and social class. Also explores how Blackness is contested in the media including literature and popular culture.		
Fall 2009	M	Ch	662	Chemical Kinetics	4		Change credits from 3 to 4.	
Fall 2009	M	Ch	693	Enzyme Structure and Function	4		Change credits from 3 to 4.	
Fall 2009	N	Comm	200	Principles of Communication	4	Introduces the skills and concepts students need for literacy in communication and provides a broad introduction to the perspectives on communication that will be encountered in upper-division Communication courses. Pre-requisite for COMM 311, COMM 316, and COMM 326. [NEW]		
Fall 2009	N	Comm	316	Individual and Social Relationships in Communication	4	This course provides students an in-depth look at social and relational approaches to Communication. This is one of three 300-level courses required for the Communication major, and provides the foundation for success in all 400-level Communication courses. Prerequisite: Comm 200.		
Fall 2009	N	Comm	326	Communication, Society, and Culture	4	This course provides students an in-depth look at social, cultural and institutional approaches to communication. This is one of three 300-level courses required for the Communication major, and provides the foundation for success in all 400-level Communication courses. Prerequisite: Comm 200.		
Fall 2009	N	Ec	380	Introduction to Mathematical Economics	4	Economic concepts are explored using mathematical methods. Applications are drawn from a wide range of fields in economics including microeconomics, macroeconomics, economic growth, international trade, international finance, labor and environmental economics, industrial organization and development economics. Mathematical methods utilized include equations, functions, sets, total and partial differentiation, and linear algebra. Prerequisites: Mth 251, Ec 201, Ec 202.		

PSU Curricular Changes 2009-10

Fall 2009	N	Ec	430/530	Resource and Environmental Economics	4	Overview of different approaches to economic analysis of resources and environment, and fundamental issues of economy/environment interactions, as well as the emerging subject of sustainability. Covers the basics of standard environmental and resource economics including the theory of externalities, resource allocation over time, common property resources, public goods and valuation. Includes an overview of the economic dimension of policies designed to protect and improve environmental quality and protect and efficiently manage natural resources. Prerequisite: Ec 201.		
Fall 2009	M	Ec	480/580	Mathematical Economics	4		Change prerequisites.	
Fall 2009	M	Ec	485/585	Cost-Benefit Analysis	4	Main theory and empirical methodologies for assessing costs and benefits of projects with varying timeframes and levels of uncertainty. Focus on public projects, including environmental, infrastructure and social service activities. Methodologies for valuation of nonmarketed goods, such as environmental services, also covered. Prerequisite: Ec 201.	Change description and prerequisites.	
Fall 2009	M	Eng	201	Introduction to Shakespeare	4	Introduces students to the works of Shakespeare.	Change title and description; drop Eng 202 from sequence.	
Fall 2009	D	Eng	202	Shakespeare	4		Drop from Eng 201, 202 sequence.	
Fall 2009	M	Eng	518	College Composition Teaching	1	Introduces and develops the theoretical and practical expertise of the graduate teaching assistant in the area of college composition teaching. May be taken up to three times for credit. Prerequisite: appointment to teaching assistantship in English Department.	Change description and credit hours.	
Fall 2009	N	Eng	519	Advanced College Composition Teaching	1	Continues the development of the theoretical and practical expertise of the graduate teaching assistant in advanced areas of college composition teaching. May be repeated up to three times for credit. Required prerequisite: appointment to 2nd year teaching assistantship in English Department.		
Fall 2009	N	Wr	210	Grammar Refresher	2	Continues the development of the theoretical and practical expertise of the graduate teaching assistant in advanced areas of college composition teaching. May be repeated up to three times for credit. Required prerequisite: appointment to 2nd year teaching assistantship in English Department.		
Fall 2009	N	Wr	521	MFA Core Workshop in Fiction	4	The graduate workshop in fiction focuses on the writing, revision, and critical discussion of student short stories and chapters from novels. Students' critical analyses of their peers' work are informed by their study of published fiction in the texts, supplemented by lectures clarifying technical strategies in the writing of fiction. This course is restricted to graduate students admitted to the writing program.		
Fall 2009	N	Wr	522	MFA Core Workshop in Poetry	4	The graduate workshop in poetry focuses on the writing, revision, and critical discussion of student poems. Students' verbal and written critical analyses of their peers' work are informed by their reading of published poems representing a range of formal strategies and historical and cultural contexts, and by their reading in prosody and poetics. This course is restricted to graduate students admitted to the writing program.		
Fall 2009	N	Wr	523	MFA Core Workshop in Nonfiction Writing	4	This course, restricted to graduate students admitted to the writing program, will concentrate on elements necessary for writing successful nonfiction prose— including structure, voice, dialog, characterization, and point-of-view—with a primary emphasis on the in-class workshop and peer review of student pieces. Nonfiction models, both short pieces and book-length, will be read and discussed, and students will write critical responses regarding those models. Instructor approval required.		
Fall 2009	M	ESR	570	Environmental Education	4		Change credits from 3 to 4.	
Fall 2009	N	ESR	588	Environmental Sustainability	4	Sustainability in natural and human-influenced ecosystems, with a focus on processes of regeneration, maturity, collapse and renewal. Topic areas include natural provisioning of ecosystem services, processes of change in ecological systems, interactions among ecological and social systems, economic valuation of ecosystem services, and ecosystem management.		

PSU Curricular Changes 2009-10

Fall 2009	M	ASL	201, 202, 203	Second Year American Sign Language	4,4,4	Expansion and refinement of first-year comprehension and production skills; expansion of grammatical and lexical repertoires through task-based instruction in transactions such as asking/giving directions, making plans, describing and identifying people, places and things, giving simple instructions, and telling what happened. Recommended prerequisites: ASL 103 for ASL 201, ASL 201 for ASL 202, ASL 202 for ASL 203.	Change prerequisites.	
Fall 2009	N	It	303	Third-Year Italian	4	Composition and conversation at the intermediate level. Recommended prerequisites: It 301, 302.		
Fall 2009	N	It	330	Italian Culture and Civilization	4	Surveys major trends and development in Italian culture and civilization from its origins to the present. Includes historical, political, social, artistic and intellectual perspectives. Taught in English.		
Fall 2009	N	It	341, 342	Introduction to Italian Literature	4,4	Overview of Italian literature from late 1600s to present. It 341 focuses on 1600s to 1800s. It 342 focuses on late 1800s to present. Introduction to representative authors and their influence on Italian and Western civilization. Study of major literary and cultural movements. Recommended prerequisite: It 203.		
Fall 2009	N	MGrk	101, 102, 103	First-Year Modern Greek	4,4,4	An introduction to elementary modern Greek. Emphasis on listening comprehension and oral practice, the elements of grammar, vocabulary building, elementary readings and writing exercises.		
Fall 2009	N	MGrk	201, 202, 203	Second-Year Modern Greek	4,4,4	Intensive review of basic materials introduced in first-year program and further development of communication skills. Recommended prerequisite: MGrk 103.		
Fall 2009	N	MGrk	301, 302, 303	Third-Year Modern Greek	4,4,4	Intermediate to advanced Modern Greek. Intensive grammatical review, use of increasingly complex syntax. Extensive oral and written practice. Prerequisites: MGrk 203 or instructor's permission.		
Fall 2009	M	Per	341	Introduction to Persian Literature	4		Change title and prerequisites.	
Fall 2009	N	Rus	421/521	Topics in Contemporary Russian Culture	4	Study of current issues in post-Soviet society such as political processes, educational reform, migration, and others. Recommended prerequisite RUS 342. May be repeated for credit when topics differ.		
Fall 2009	M	Span	341, 342, 343, 344	Introduction to Hispanic Literature	4,4,4,4	341: Spanish literature from the Middle Ages to the Golden Age. 342: Spanish literature from the 18th century to the present. 343: Pre-Colombian to 19th century Latin American literature. 344: Latin American literature from the end of the 19th century to the present. Readings from representative texts. Prerequisites: Span 301, 302, 303.	Change course number, description. Add 344 to sequence.	
Fall 2009	N	Span	343	Introduction to Hispanic Literature	4	Pre-Colombian to 19th century Latin American literature.		
Fall 2009	N	Span	430/530	Major Topics: Ibero-American Film	4	Study, analysis, and critique of films from Ibero-America on such topics as national film traditions, Cinema Novo, Third Cinema, violence, migration, gender studies, and globalization. Course may be repeated for credit when topics vary. Recommended prerequisites: at least 8 credits of Span 341, 342, or 343.		
Fall 2009	M	Tur	361	Turkey through Film	4	Viewing of feature films or made-for-TV series followed by discussion of social, historical, and artistic significance of the visual narratives. Individual directors like Yilmaz Güney, genres like comedy and period-dramas of the 1970s or 1960s may be used. Films have subtitles. Readings, viewings and discussions are in Turkish. Recommended prerequisite: Tur 203. English.		
Fall 2009	N	Geog	418/518	Landscape Ecology	4	Examines the structure, function, and change of natural and human-modified communities at the scale between individual communities and regional biomes. Focuses on spatial patterns and processes as they relate to the patch mosaic of interacting ecological communities. Recommended prerequisites: Geog 313 or Bi 357. Upper-division standing required.		
Fall 2009	N	Geog	523	Geographic Research and Applications	1	Applications of theory and method in geography through discussion of faculty research; relates theoretical underpinnings of the discipline to faculty research agendas, broadens perspectives on geographical research questions. Required of all geography graduate students.		
Fall 2009	N	G	203	Historical Geology	3	Earth's history as revealed through the rock and fossil record. Emphasis on the physical and biological changes exhibited through time. Recommended prerequisites: G 201, G 202. Requires concurrent enrollment in G 206.		
Fall 2009	N	G	206	Historical Geology Lab	1	Earth's history as revealed through the rock and fossil record. Emphasis on the physical and biological changes exhibited through time. Lab exercises stress the studies of fossils. Concurrent enrollment in G 203 required.		

PSU Curricular Changes 2009-10

Fall 2009	N	G	346	Exploring Mars	4	On-line course centered on the ongoing exploration of Mars. Topics follow an exploration timeline and include Mars' geology, climate, potential for life, and habitability. Recommended prerequisites: G 201.		
Fall 2009	N	G	353	Natural History of Dinosaurs	4	Dinosaurs, their evolution, classification, ecology and extinction in the context of changing environments. Study of the geologic record and tools used by geologists to determine geologic ages and sequences. Mechanisms of global change ranging from plate tectonics to asteroid impacts.		
Fall 2009	M	G	434	Structural Geology and Tectonics	5	Study of origin, interpretation, and mapping of major and minor geologic structures and their relation to plate tectonics. Three lectures; two 2-hour laboratories; and required field study. Prerequisite: G 326, PH 203 or 213, MTH 261.	Change title, credit hours from 4 to 5, description and prerequisites.	
Fall 2009	M	G	435	Stratigraphy and Sedimentation	5	Principles and techniques of recognition, interpretation and correlation of stratified rock units used to establish time histories of tectonic, volcanic and surficial processes and environmental deposition. Investigation techniques of sediments and their depositional characteristics. Two lectures and two – 2 hour laboratories per week and two weekend field studies. Prerequisite: G318.	Change title, description, credit hours from 4 to 5, lab hours.	
Fall 2009	N	Hst	514	Graduate Research Colloquium	1	Provides an opportunity for graduate students in history to engage in presentation and discussion of each other's work under faculty guidance and to gain exposure to current developments in historical scholarship through presentations of faculty research. May be repeated for credit; however, only a maximum of three credits may be applied to graduate degree requirements. Recommended prerequisites: matriculation in graduate program in History.		
Fall 2009	N	Intl	397	US Policy and International Development	4	Explores relation between U.S. domestic and foreign policy on the formulation of the concept of development, its theoretical evolution and application in developing nations. Utilizes a historical approach starting with colonialism and ending with topics of contemporary salience such as trade, financial liberalization and sustainability. [NEW]		
Fall 2009	N	Intl	490	Global Sustainable Development	4	An examination of key concepts of sustainable development, policies associated with sustainable development in developing nations, and the power relations inherent to these policies. The subject matter is approached from an interdisciplinary perspective. Recommended prerequisites: Intl 397.		
Fall 2009	M	Mth	105	Excursions in Mathematics	4	Exploration of a variety of modern mathematical topics. Topics may include the mathematics of voting systems, graphs and networks, symmetry in art and nature, population growth, fractals, probability. Intended for students without a strong algebra/calculus background, but with a desire to explore some interesting mathematics. Recommended prerequisite: second-year high school algebra or Mth 95 or equivalent. [CHANGE PREREQUISITES]	Change prerequisites.	
Fall 2009	M	Mth	111, 112	Introductory College Mathematics I, II	4,4	An integrated treatment of topics from algebra and trigonometry. These courses serve as additional preparation for students with insufficient background who desire to take Mth 251, 252, 253. Neither Mth 111 nor 112 can be taken for credit if a grade of C-, P, or above has already been received for a course which requires either of them as a prerequisite. Courses must be taken in sequence. Recommended prerequisite: Mth 111: second year high school algebra or Mth 95 or equivalent. Mth 112: Mth 111.	Change prerequisites.	
Fall 2009	M	Mth	211, 212, 213	Foundations of Elementary Mathematics I, II, III	4,4,4	A constructivist approach to fundamental ideas of mathematics. Prerequisite for Mth 211: second year high school algebra or equivalent. Prerequisite for Mth 212, 213: Mth 211.	Change prerequisites.	
Fall 2009	M	Mth	251, 252, 253	Calculus I, II, III	4,4,4	Differential and integral calculus of functions of a single variable, analytic geometry, infinite series, and applications. Courses must be taken in sequence. Recommended prerequisites: Mth 112 or high school precalculus.	Change prerequisites.	
Fall 2009	M	Mth	312, 313	Advanced Multivariate Calculus	4,4	Differential and integral calculus of functions of several variables, the inverse and implicit function theorems, infinite and power series, differential forms, line and surface integrals, Green's, Stokes', and Gauss' theorems. Courses must be taken in sequence. Prerequisites: Mth 254 and Mth 311. [CHANGE PREREQUISITES]	Change prerequisites.	

PSU Curricular Changes 2009-10

Fall 2009	M	Stat	243, 244	Introduction to Probability and Statistics I, II	4,4	A basic course in statistical analysis including presentation of data probability, probability distributions, sampling distributions, estimation, tests of significance, experimental design and analysis of variance, regression and correlation, nonparametric statistics, selected topics, applications, and use of statistical computer packages. A broad nontechnical survey designed primarily for non-math students who need to utilize the subject in their own fields. Not approved for major credit. Courses must be taken in sequence. Prerequisites: second year high school algebra or Mth 95 or equivalent, or satisfactory score on the placement exam.	Change prerequisites.	
Fall 2009	M	Stat	571	Applied Multivariate Statistical Analysis	3	Introduction to techniques and methods of multivariate statistical analysis. Deals with vector-valued data generated on individual experimental units. Applies the methods of vector analysis and matrix algebra to statistical problems of estimation and hypothesis testing, based primarily on the multivariate normal distribution. Computing to be an integral part of the course. Calculations will be done using a software package such as SAS or SPSS. Recommended prerequisites: Stat 244, Mth 254, and Mth 261.	Change prerequisites.	
Fall 2009	N	Phl	305	Philosophy of Medicine	4	Examination of central philosophical issues that arise within the theory and practice of medicine such as: the relationship of medicine to basic sciences, the roles played in medicine by normative concepts such as health and illness, the nature of causal reasoning in medicine, and the nature of diagnostic categories in medicine and psychiatry.		
Fall 2009	N	Phl	307	Introduction to the Philosophy of Social Science	4	A survey of philosophical issues that arise within social sciences: what is the object of study of the social sciences, are social sciences scientific, are there laws in social sciences, are social sciences descriptive or explanatory, and does the proper methodology of social sciences include unique hermeneutical principles of understanding or merely methods of causal inference and/or structural analysis?		
Fall 2009	N	Phl	369	Philosophy of Sex and Love	4	An examination of the central philosophical issues emerging from a reflection on sex and love such as: possible essence of heterosexuality, homosexuality, and asexuality; morality of different expressions of sex and love such as sadomasochism and polygamy; role of sexuality and romantic love in our self-conception; influence of conceptual sources on our experiences of sexuality and love.		
Fall 2009	N	Ph	335	Wacky or Real: What Everyone Should Know about Physics Scams	4	The use and misuse of physics: beginning with a firm understanding of the strengths and weaknesses of the scientific method, analyzes how people veer away from it, resulting in pathological, junk, pseudo and fraudulent physics. Examples such as magnetic therapy, perpetual motion, ESP, x-ray cures, and astrology are included. Recommended prerequisites: upper division standing.		
Fall 2009	N	Ph	481/581	Introduction to Nano(materials)-Science and Engineering	4	An introduction to nano(materials)-science and -engineering for students in physics, chemistry, geology, electrical and computer engineering, and mechanical and materials engineering. Nanoscale processes and devices and their applications. Recommended prerequisites: two specific advanced upper division science courses dependent on major, or consent of instructor.		
Fall 2009	N	Ph	545	Microelectronic Device Fabrication I	4	The principles of crystal growth and wafer preparation, ion implantation, doping and diffusion, and oxidation, including crystal structure, defects, heterogeneous chemical reactions, thermodynamics and kinetics of basic processes such as diffusion. Realistic process flows, physical metrology, device structure, electrical behavior and their trade-offs are discussed.		
Fall 2009	N	Ph	546	Microelectronic Device Fabrication II	4	Emphasis: metallization and dielectrics. Metallization issues discussed include silicides, barrier layers, interconnects, multi-level metallization, and low-k dielectrics. Discussion of deposition and properties of various dielectric films. Epitaxial growth and properties of SOI and SiGe devices are covered. Computer simulations of device fabrication.		
Fall 2009	N	Ph	547	Microelectronic Device Fabrication III	4	Electron beam, x-ray, EUV, and photolithography, including discussion of resist technology. Fundamentals and applications of plasmas for etching and deposition (e.g., high-density plasmas), including plasma damage. The limitations of fabrication and operation of nano-scale devices are discussed. Fabrication of a virtual device with specified electrical performance parameters.		

PSU Curricular Changes 2009-10

Fall 2009	N	Ph	585, 586	Experimental Methods in Applied Physics	4,4	Introduction to modern instrumentation used in applied physics, focusing on nanoscience and materials, atmospheric physics, and biophysics, including theory and practice of the instruments. Prerequisite: admission to Ph.D program in Applied Physics, M.S. in Physics, or ESR Ph.D programs.		
Fall 2009	M	Ph	617	Quantum Mechanics	4	A detailed discussion of the approximation models for solving the time-independent Schrödinger equation; scattering theory in terms of stationary unbound states; time-dependent theory including the perturbation method; the two-level problem and its application to laser operation. Dirac's formulation using bra and ket; different time-evolution pictures; concept of density matrices; Berry's phase; quantum theory of angular momentum; Feynman's path integral formulation; introduction to relativistic quantum mechanics; issues on the fundamental aspects of quantum mechanics including Bell's theorem, the EPR paradox, hidden-variable theory; and Schrödinger's cat problem. Prerequisites: Ph 411/511, 424.	Change credits from 3 to 4, change description.	
Fall 2009	M	Ph	617, 618, 619	Quantum Mechanics	4,4,4	A detailed discussion of the approximation models for solving the time-independent Schrödinger equation; scattering theory in terms of stationary unbound states; time-dependent theory including the perturbation method; the two-level problem and its application to laser operation. Dirac's formulation using bra and ket; different time-evolution pictures; concept of density matrices; Berry's phase; quantum theory of angular momentum; Feynman's path integral formulation; introduction to relativistic quantum mechanics; issues on the fundamental aspects of quantum mechanics including Bell's theorem, the EPR paradox, hidden-variable theory; and Schrödinger's cat problem. Prerequisites: Ph 411/511, 424.	Add Ph 617 to existing sequence.	
Fall 2009	M	Psy	516/616	Advanced Organizational Psychology	4	Theory, methods, and selected topics in organizational psychology including leadership, motivation, job attitudes, job stress, organizational climate, and employee retention.	Change title and description.	
Fall 2009	N	Soc	463	Global Inequalities and Health	4	An examination of international health inequalities from social, political and economic perspectives. The impact of globalization, transnationalism and migration on population health. Inequalities within and between countries and regions, and the social dynamics that shape those inequalities. Infectious pandemics and chronic diseases, and global efforts to control diseases and improve health. Recommended prerequisites: Soc 200.		
Fall 2009	N	Soc	588/688	Social Sustainability Theory and Practice	4	Healthy families; healthy communities; healthy democracies; economic, gender and racial equity; and social justice are all factors of social sustainability. This course will examine how to measure and how to reach these goals, by examining models locally, nationally and internationally. We will look at best practices of city, state and national governments, businesses, unions, and NGOs. We will also examine the relationship between economic, environmental and social sustainability.		
Fall 2009	M	SpHr	371	Anatomy and Physiology of Speech and Swallowing	4	A study of the anatomy and physiology of the respiratory, phonatory, and articulatory systems for speech, with applications to speech disorders. The physiology of swallowing and swallowing disorders is also covered.	Change title and description.	
Fall 2009	N	CFS	486/586	Parent and Family Education	4	Introduction to parenting rights, responsibilities, practices, processes, parent/child relationships, changing parenting roles and general philosophy/broad principles of family life education. Planning, observing, and evaluating family life education programs will be included through a community based experience. Recommended prerequisite: junior status.		
Fall 2009	M	SW	439	Social Justice in Social Work	3		Change title.	
Fall 2009	N	SW	440	Human Behavior in the Social Environment	4	Presents a range of theories that seek to explain and predict human behavior across various levels of social systems, and that inform social work practice. Basic knowledge of human development from infancy to late adulthood in the context of individuals and families presented, and relationships between theoretical frameworks and the bio-psycho-social environment identified. Considers the development, behavior and change processes of groups, organizations, and communities. Particular attention paid to ways the experiences of marginalized populations negatively influence the process of development, and to related ethical issues. Prerequisite: Admission to major.		

PSU Curricular Changes 2009-10

Fall 2009	N	SW	441	Psychobiology for Social Workers	3	Provides baccalaureate level social workers with a basic understanding of biological concepts, physiological systems, and neurological-environmental interactions. Enhances social work practice skills by providing a holistic conceptualization of people-in-environment. Prerequisite: Admission to major.		
Fall 2009	N	SW	491	Conceptual Foundations in Children, Youth, and Families	4	Theoretical and conceptual foundations of working with children, youth, and families in professional settings. Historical, socio-political contexts of significant theories and their relevance for professional application. Prerequisite: junior standing.		
Fall 2009	N	SW	492	Family Law and Policy	4	Laws and policies that influence the well-being of families, youth, and children examined from a historical, socio-political perspective. Analysis of contextual influences and community-based learning experience assists students in practical applications related to professional roles. Prerequisite: junior standing.		
Fall 2009	M	SW	540	Human Behavior in the Social Environment: Micro Theory	3	Presents and critiques basic knowledge of human development from infancy to late adulthood in the context of individuals and families and identifies relationships between theoretical frameworks and the biopsychosocial environment. Considers populations at risk and the impacts of racism and other forms of oppression on development. Provides students with knowledge of how developmental frameworks organize information about human dynamics, while still stressing the multicausal nature of behavioral outcomes. Covers genetics and biological changes as they interact with the environment to influence development are followed across the lifespan. Prerequisites: SW 539.	Change description.	
Fall 2009	M	SW	620	Social Problem Analysis: Assessment Phase	3	First in a three course sequence. Assessment phase of the problem solving process applied to the student's selected social problem. Emphasis on conducting a comprehensive analysis of the social problem, which includes identifying and defining the problem, determining its scope and consequences, and evaluating theory and evidence at various levels of social organization to explain its existence. Involves examination of the relevant cultural, historical, and political contexts.	Change description.	
Fall 2009	M	SW	622	Social Problem Analysis: Evaluation Phase	3	Continuation of social problem sequence. Focuses on the evaluation phase of social problem analysis. Evaluation is a set of practices and skills in an applied area of the social sciences that requires grounding in a number of theoretical perspectives and methodological approaches. It necessitates a clear formulation of questions to be answered, an awareness of stakeholders to be considered and a plan for how data will be collected, analyzed and disseminated. Additional priorities include responsiveness to the role of consumers and sensitivity to the cultural context in which research is conducted. Practicality, usefulness and accessibility emphasized. Focuses on the demands and nuances of the science and art of evaluation. Prerequisites: SW 621, SW 634, SW 635.	Change description.	
Fall 2009	M	SW	631	Introduction to Quantitative Research Methods in Social Work	3	Introduces students to basic quantitative methods for applied social work research and examines the assumptions underlying quantitative methods. Reviews core elements of research design and the selection of appropriate methods to address specific types of research questions with attention to questions of ethics and research across diverse populations. Includes a review of internal and external validity issues in conducting experimental and quasi-experimental designs. Provides experience in applying quantitative methods by developing a proposal for social work research project.	Change credit hours to 3, change description.	
Fall 2009	M	SW	632	Quantitative Data Analysis in Social Work Research	4	Provides preparation in the selection and use of statistical methods appropriate for social work research questions. Covers descriptive statistics, probability theory, statistical inference, and basic inferential methods. Preparation for multivariate statistical methods. Empirical social work studies critiqued and discussed. Includes application and analysis laboratory. Prerequisite: SW 630, 631.	Change title and description.	

PSU Curricular Changes 2009-10

Fall 2009	M	SW	633	Introduction to Qualitative Research Methods in Social Work	2	First course in required 2-course sequence that introduces students to the theoretical foundations and methods of qualitative research in social work. Examines assumptions and theories underlying qualitative methods, especially issue of ontology, epistemology, and methodology, and specific qualitative traditions (e.g., grounded theory, narrative, participatory action research, ethnography), from a critical perspective. Emphasizes qualitative methods for understanding cultural issues and the empowerment of marginalized populations; considers issues of power, privilege, and oppression. Design of qualitative research, ethical issues, and data collection emphasized. Students gain experience in applying qualitative methods in social work by developing a proposal for a qualitative research project and engaging in some data collection and preliminary analysis, and self reflection. Prerequisite: SW 630.	Change description.	
Fall 2009	M	SW	634	Quantitative Data Analysis in Social Work Research II	4	Introductory multivariate statistical procedures. Core topics: correlation and partial correlation, reliability and validity of measures and scale construction, and linear and logistic regression. Covers considerations of level of measurement and distributional assumptions for each statistical procedure. Balances developing theoretical understanding and hands-on running of tests and interpretation of results. Prerequisite: SW 632.	Change title and description.	
Fall 2009	N	SW	635	Qualitative Research Methods in Social Work II	2	Second course in required 2-course sequence on qualitative research methods in social work. Addresses methods of data description, analysis, interpretation, and presentation. Issues of researcher subjectivity, criteria for rigor, as well as the write-up and dissemination of qualitative research. Data analysis techniques associated with ethnography, case studies, participatory action methods, as well as narrative, phenomenological, and grounded theory approaches. Experiential hands-on component, including computer-assisted qualitative data analysis software. Emphasizes qualitative methods for understanding cultural issues and giving voice to marginalized populations. Issues of power, privilege, and oppression addressed. Prerequisites: SW 630 and SW 633.		
Fall 2009	M	SW	640, 641, 642	Research Practicum and Seminar	2,2,2		Change prerequisites.	
Fall 2009	N	MS	309	Introduction to American Military History	3	Covers the American Army's history from its birth in 1775 to the eve of World War I.		
Fall 2009	N	MS	310	American Military History	3	Builds on Introduction to American Military History covering World War I to the Global War on Terror. Studies effects of two world wars on the American military, along with the social changes that helped define the modern American Army. Covers how the policies of the cold war era have influenced the military as a whole and are affecting our current situation in the Global War on Terror. Recommended prerequisite: MS 309.		
Fall 2009	N	PHE	522/622	Health and Social Inequalities	3	Introduction to historical and theoretical foundations for social epidemiology; investigates the conceptualization and measurement of different social determinants of health using a lifecourse approach; explores how the "embodiment" of social forces influence disease processes; and examines different actions (i.e., behavioral, clinical, social, legislative and political) used to eliminate health inequities within our local, national and international communities.		
Fall 2009	N	PS	471/571	Gender & Politics: A Comparative Perspective	4	Examination of the role, progress, behavior, and power of women in politics using a comparative lens. Topics include the representation of women in government, the problems confronting female candidates, the behavior of women officeholders, and the gender gap in politics. Examines women in western democracies, as well as in communist states and developing nations. Individual countries are used as case studies. Recommended prerequisites: PS 200 and junior standing.		
Fall 2009	N	PA	413	civic Engagement: The Role of Individuals	4	Develops understanding of how local governments engage citizens in contributing to the process of engagement. Assists students in developing civic capacity, and ultimately to promote citizen leadership. Analyzes how the structures and processes of local governments affect opportunities for democratic accountability and citizen participation. Recommended prerequisite: PA 311.		

PSU Curricular Changes 2009-10

Fall 2009	N	PA	414	Civic Engagement: The Role of Social Institutions	4	Develops understanding of the role social institutions (nonprofit, public interest, volunteer) organizations play within the larger scheme of the American democratic system. Examines how socially sustainable communities are dependent on strong social institutions and their relationships with governing structures. Recommended prerequisite: PA 311.		
Fall 2009	N	PA	415	Civic Leadership Integrative Seminar	4	Culminating seminar for students in the civic leadership minor to reflect upon, synthesize, and showcase their theoretical understanding and practical application of civic leadership. Students develop a portfolio that demonstrates their learning about civic leadership throughout the entire course of the minor. Prerequisite: PA 311.		
Fall 2009	N	PA	523	Nongovernmental Organizations: Nonprofits on the World Stage	3	Introduction to the history and development of Nongovernmental Organizations (NGOs) and the roles they play on the world stage. Examines the causes of the growth and significant role of NGOs in creating civil society, as well as the roles of NGOs in fighting oppression, safeguarding the environment, building and training workforces and advocating major societal changes.		
Fall 2009	N	PA	527	New/Emerging Nonprofits: Development and Management	3	Intended to develop knowledgeable leaders for the nonprofit sector that understand how to establish and manage newly emerging organizations. Examines a wide range of management and leadership needs, problems and issues that arise for an organization in its early years. Explores how an organization develops and emerges and how the traditional tasks of management: supervision, planning, budgeting, fundraising and marketing can be most effectively administered. Recommended prerequisites: PA 520 or PA 521.		
Fall 2009	N	PA	538	Advocacy and Political Participation by Nonprofit Organizations	3	Exploration of the role of citizen advocacy and political participation in the United States in the twenty-first century. Investigates the many meanings of the term "civil society," as well as the role of nonprofit and voluntary organizations in lobbying and advocacy, and the role of citizen movements in shaping local, national and global democracy. Will discuss and analyze specific advocacy campaigns with a focus on strategy.		
Fall 2009	N	PA	580	Health Services Human Resources Management	3	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.		
Fall 2009	M	PA	593	Civil Rights for Public Managers	3	Public service professionals deal with a variety of civil rights issues on a regular basis. They manage a diverse workforce with civil rights considerations central to effective human resource management. That diverse workforce serves increasingly diverse communities. Civil rights include race and ethnicity, but other issues and groups as well. This course considers the major issues of civil rights from a public law perspective with a concern for the challenges facing public managers.	Change title and description.	
Fall 2009	M	PA	594	Enhancing Diversity in the Workplace	3	To examine the effects of diversity across organizations with particular emphasis on those within the public sector. Three aspects of diversity initiatives will be employed: valuing, enabling and managing diversity. A wide range of cultural and social diversity issues, to include but not limited to race, gender, age, nationality, class, language, sexual orientation and disability, will be discussed. Theories and practical tools will be explored and students will be given the opportunity to work on diversity issues by way of discussions, case studies and field assessments.	Change title, description and prerequisites.	
Fall 2009	M	USP	360	Real Estate Finance I	3	Application of finance and economic principles to analysis of real estate finance and investments. Emphasis on the development of problem solving capabilities through the use of computer application programs. Special attention is given to risk analysis, alternative mortgage instruments, hedging techniques, and the tax effects of real estate investment. Prerequisites: FIN 333. (The course is cross listed as FIN 360, and may only be taken once for credit).		

PSU Curricular Changes 2009-10

Fall 2009	N	USP	386	Portland Past and Present	4	Begins with the geological/geographical foundations of Portland then briefly explores Portland's original inhabitants, early exploration and commercial growth. Particular attention is paid to the 20th century and the plans and projects that have guided Portland's development over the past 100 years. Considers the shaping of Portland as a regional city, examining the evolving cityscape, architecture, land use, and transportation, and its development from political, social, economic, and cultural perspectives.		
Fall 2009	M	USP	423	Real Estate Development	4		Change title and prerequisites.	
Fall 2009	D	USP	448	Real Estate Market Analysis	3			
Fall 2009	M	USP	499/599	Real Estate Finance and Investments	3		Separate UG and Grad courses, change course number to USP 453, change title of 599.	
Fall 2009	N	USP	512	Environmental Planning Methods	3	Examination of the patterns and processes in human-dominated landscapes, and the tools for understanding human behavior and decision making. By applying several environmental planning tools to managing landscapes, this course aims to provide students with skills to translate data into information. Topics covered include, land conservation, impact of land use on watersheds, sustainability design, environmental impact assessments, and environmental modeling and simulation. Focus is on the application of tools to addressing pressing problems of regional significance. Recommended prerequisites: USP 531 or Geog 488/588.		
Fall 2009	M	USP	541	Dynamics of Planning Practice	3		Change title.	
Fall 2009	M	USP	548	Real Estate Market Analysis	3		Change prerequisites; separate UG from Grad course.	
Fall 2009	M	USP	598	Real Estate Finance I	3	Introduces business finance within the context of commercial real estate. Concepts and techniques will include financial statements, analysis, and forecasting; present value and discounted cash flow analysis, an introduction to real estate valuation measurements; and analysis of performance risk versus return. Students also receive an overview of the legal definitions of real estate terminology, including title, contract, regulation, and financing issues, and case studies in real estate development. Recommended prerequisites: Ec 201 and 202.	Change title and description.	
Fall 2009	M	USP	599	Real Estate Finance II	3	Application of finance and economic principles to analysis of real estate finance and investments. Emphasis on the development of problem-solving capabilities through the use of computer application programs. Special attention given to risk analysis, alternative mortgage instruments, hedging techniques, and the tax effects of real estate investment. Prerequisite: USP 598 or equivalent. Cross listed as Fin 599. This course may only be taken once for credit.	Separate UG and Grad courses, change title and description.	