

Oregon Institute of Technology								
This list submitted to OrACRAO on: 8/8/07								
Curricular Change Cycle: Annually								
Annual submission date: Every July Mid-Month								
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Effective Term	New (N) Modified (M) Deleted (D)	Prefix	Course#	Course Title	Credits	Course Description	Type of Change (for modified classes only)	Comments
Fall 2008	N	ANTH	452	Globalization	3	Though "globalization" and the "global economy" are terms we often hear everyday, just what do they mean? This seminar will address what globalization is and how it developed and spread. It will also address the benefits and harms of globalization in the areas of work, culture, environment, health and food. In addition, countervailing pressures from social movements and protests will be examined. Prerequisite: WRI 122		
Fall 2007	M	BIO	112	Introduction to Data Analysis	1	Skills in data acquisition from primary and secondary sources. Time series and cross-sectional data. Extensive use of spreadsheets for data analysis and graphical display including trendlines, histograms, and cumulative frequency distributions. A series of self-paced tutorials on CD. Basic computer proficiency is expected.	Term offered	
Fall 2007	N	BIO	200	Medical Terminology	2	Basic structure of medical works including prefixes, suffixes, roots and combining forms. Correct spelling, pronunciation, and meaning of terms are stressed.		Replacing HSC 200
Fall 2007	N	BIO	205	Nutrition	3	A study of relationships of food and nutrition to health. An overview of the basic nutrition principles including the nutrients and how they function in the body, nutrient requirements, diet planning, and energy balance. Current topics and controversies are examined. Prerequisite/Corequisite: CHE 103 or BIO 213 or instructors consent		Replacing HSC 205

Fall 2007	N	BIO	209	Pathophysiology for Health Informatics	3	A survey of some of the most important areas of pathophysiology with applications to health informatics. Cannot be used for graduation credit for those who have taken BIO 231, BIO 232 or BIO 233. Prerequisite: BIO 103		
Fall 2007	M	BIO	211	Principles of Biology	4	Principles of modern biology emphasizing form and function of multicellular plants, major invertebrate phyla, and general vertebrate morphology and physiology.	Term offered	
Fall 2007	M	BIO	212	Principles of Biology	4	Principles of modern biology emphasizing evolution, ecology, population genetics, and behavior of organisms. Prerequisite: BIO 211	Term offered	
Fall 2007	M	BIO	213	Principles of Biology	4	Principles of modern biology emphasizing the biochemical basis for life processes, cell structure, and function. Molecular genetics, cell reproduction, metabolism, and form and function of microorganisms. Prerequisite: BIO 212	Term offered	
Fall 2007	M	BIO	327	General Ecology	4	An overview of ecological principles and types of ecosystems. Energy dynamics, resource flow, chemical and biological cycles, and human ecology. Descriptive modeling of environmental systems and resource analysis. Local and extended one or two day field trips to study different ecosystems off-campus Prerequisites: GEOG 105, BIO 213	Title Term offered Prerequisite	
Fall 2007	N	BIO	341	Medical Genetics	3	Principals of heredity, chromosome mechanisms, and molecular genetics applied to disease processes in humans. Review of case histories of selected inherited disorders. Discussion of genetic intervention therapies. Prerequisite: BIO 213 or instructor consent		Replacing HSC 311
Spring 2009	N	BIO	342	Cell Biology	4	Organelle organization, protein sorting, cell signaling, cytoskeletal functions, cell division mechanics, and cell interactions in development and aging. Prerequisites: BIO 213, CHE 332 or instructor consent		

Fall 2007	M	BIO	460, 461, 462	Human Cadaver Dissection	1	Study of human anatomy utilizing cadaver dissection. Attention will be given to three-dimensional relationships of structures, appreciation of textural differences, and development of palpation skills. Recognition of pathologic abnormalities and individual variations will be investigated. Prerequisite: BIO 233 or BIO 333 with instructor consent	Description Add to Curriculum Prerequisite	
Fall 2007	D	BUS	317	Health Care Management	3	The health care manager's role in planning, organizing, leading and controlling. Special emphasis on the unique and complex issues involved in health care management. Organizational structures. Strategic and operational planning. Health care finance and budgeting. The future of management. (Cannot be taken for graduation credit by students who have taken BUS 215 or BUS 304) Prerequisite: Junior standing or instructor consent		
Fall 2007	N	BUS	328	Health Care Accounting and Finance	3	Overview of economics of health care with an understanding of the general principles of accounting applied in the health care environment. Revenue sources, Diagnosis-Related Group (DRG) and Relative Value Unit (RVU) systems are examined. Various private, state, and federal payers are examined. Issues such as cost effectiveness of prevention, management of patients and their diseases, as well as cost of treatment settings are discussed. Third party reimbursement from various sources, ranging from for-profit insurance carriers to charitable donations in reviewed. Prerequisite: Math 111		
Fall 2007	M	BUS	349	Human Resource Management	3	The employment process, management development and training, wage and salary administration, preventive labor programs, safety, affirmative action, worker's compensation, grievance handling, job evaluation and job description analysis, employee services and programs. Prerequisite: BUS 215 or BUS 304 or BUS 317 or BUS 337	Prerequisite	

Spring 2007	N	BUS	350	Hospitality Management	3	Study of management principles in the tourism and hospitality industry. Topics include managing growth and change in the hospitality industry, major functional areas in hotels and restaurants, and economic aspects of the industry. (Cannot be taken for graduation credit by students who have taken BUS 215, BUS 304 or BUS 317)		
Spring 2007	N	BUS	358	Marketing for Hospitality and Tourism	3	Study of marketing principles as they apply to the tourism and hospitality industry. Topics include marketing in strategic planning, the marketing environment, marketing information systems and marketing research, consumer buying behavior, market segmentation, product pricing, distribution channels, and internet marketing. (Cannot be taken for graduation credit by students who have taken BUS 399 Special Topics: Marketing Tourism)		
Fall 2007	N	BUS	437	Women in Business, Engineering and Technology	3	Advanced look at leadership styles for women to achieve excellence in managerial business and technology roles. Gender role assignment and impact on recruitment. Consequences of "glass ceiling" on professional advancement. Strategies for reversing these trends and availability of support agencies. Prerequisite: PSY 347 or PSY 410		
Fall 2007	M	BUS	445	Business Presentations	4	Design, preparation, and delivery of effective business presentations. Emphasis on integration of skills in speech, written communications, and desktop publishing in the development of executive presentations in the multimedia environment. Prerequisite: WRI 227	Credit hours	
Fall 2007	M	CHE	221	General Chemistry	5	Components of matter, atomic and molecular structure, chemical bonding, stoichiometry, major classes of chemical reactions, gases and kinetic-molecular theory, thermochemistry, and quantum theory and atomic structure. Prerequisite: CHE 101, high school chemistry or equivalent Corequisite: MATH 111	Term offered	

Fall 2007	M	CHE	222	General Chemistry	5	A continuation of CHE 221. Models of chemical bonding, shape of molecules, theories of covalent bonding, liquids and solids, properties of mixtures, bonding and reactivity, and chemical kinetics. Prerequisite: CHE 221	Term offered	
Fall 2007	M	CHE	223	General Chemistry	5	A continuation of CHE 222. Emphasis on chemical equilibrium and its applications in aqueous solutions including acid-base, solubility and complexation reactions. Buffers, pH, thermodynamics, electrochemistry, and nuclear reactions and their applications. Prerequisite: CHE 222	Term offered	
Fall 2007	M	CHE	231	Steamwater Chemistry	1	Physical and chemical properties of freshwater systems, instrumental design, and operating methods for measuring pH, dissolved oxygen, ammonia, nitrate, turbidity, and conductivity. A five-week series of self-paced tutorials on CD followed by an extended, instructor-led laboratory to be conducted on a designated Saturday. Prerequisite: CHE 201 or CHE 221 or instructor consent	Term offered	
Fall 2007	M	CHE	232	Steamwater Sampling	2	Five week course introducing calibration and operational use of the Hydrolab multiprobe. Fundamental concepts in aquatic chemistry. Project planning, constraint assessment and measurement methodologies. Computer downloading and analysis of data. Prerequisite: CHE 231 Corequisite: BIO 112 or spreadsheet proficiency	Term offered	
Fall 2007	M	CHE	331	Organic Chemistry I	4	The structures and reactions of carbon compounds with emphasis on thermodynamics, reaction pathways and spectroscopy. Prerequisite: CHE 223	Term offered	

Fall 2007	M	CIV	361	Water and Sewer Systems Design	4	Population and other factors influencing water supply demands, fire flows, peaking factors, and storage requirements. Estimation of wastewater flows including I/I considerations. Open channel flow design applications. Wastewater collection system design, construction and maintenance. Flows in pressure pipe systems, pipe networks analysis, and design techniques. Prerequisite: ENGR 231 with grade "C" or better.	Prerequisite	CIV 245 is no longer needed as a prerequisite.
Fall 2007	M	COM	102	Introduction to Communication Theory	3	An exploration of the basic theories and concepts of the communication discipline. Introduces students to the communication areas and theories they will encounter in further communication study. Prerequisite: COM 101 Prerequisite or Corequisite: WRI 122	Corequisite Prerequisite	WRI 122 is now available for a pre or co - requisite
Winter 2008	N	COM	248	Digital Media Production	3	Study of the technical aspects of digital media design and production. Hands-on experience in creating and editing video and audio. Production of video and audio for specific contexts.		
Fall 2007	M	COM	326	Communication Research	3	Introduction to research methods and design. Design of both quantitative and qualitative research. Emphasis on communication based on methodologies: focus groups, directed interviews, and ethnomethodologies. Includes a research project and written and oral research reports. Prerequisite or Corequisite: WRI 227	Corequisite Prerequisite Term Offered	Allows students to take COM 103 and COM 326 consecutively.
Winter 2008	N	COM	346	Health Communication	3	Overview of interpersonal, social and cultural issues in health communication, including family interaction, roles of patients and caregivers, communication in health organizations and the role of media. Prerequisites: WRI 122 with grade "C" or better; COM 205 or equivalent		
Fall 2007	M	CST	130	Computer Organization	4	Introduces computer elements, organization, and instruction sets. Computer arithmetic, ALU, Registers, Datapath, Memory and Control unit functions. Course includes lab. Prerequisite: CST 162 with grade "C" or better	Corequisite Prerequisite Description	To provide less overlap.

Fall 2007	M	CST	131	Computer Architecture	3	A continuation of CST 130, Computer Organization. Topics include main memory, cache, virtual memory, memory management, secondary storage, networks, operating system functions, and pipelining. Prerequisite: CST 130 with grade "C" or better	Description	To reflect current material covered.
Fall 2007	M	CST	133	Digital Electronics II - Sequential Logic with HDL	4	Introduction to Sequential Logic, Latches, Flip/Flops, Timers, Counters/Registers, HDL Implementation, PLD HW Implementation, Finite State Machine Design/Analysis, Logic Testing, MPU System, Memory Devices, DC Parameters and Timing Analysis. Laboratory integral to the class. Prerequisite: EE 131 or CST 162 both with grade "C" or better	Corequisite Prerequisite	To provide a digital course for freshmen.
Fall 2007	M	CST	162	Introduction to Digital Logic	4	Introduction to combinational logic. Includes intro to DC circuits, number systems, Boolean algebra, logic gates, Muxes, Decoders, Adders, Subtracters. Logic design using a hardware description language. Laboratory integral to the class. Prerequisite or Corequisite: MATH 100	Corequisite Prerequisite Description	To provide less overlap.
Fall 2007	D	DH	201	Dental Science I	2	Sequential courses designed to integrate dental anatomy, emergency procedures, embryology, head and neck anatomy, histology, general pathology, oral pathology, and periodontology. Topics correlate with dental hygiene curriculum. Emphasis on knowledge and skills necessary to treat patients. Prerequisite: BIO 233 and admission to dental hygiene program		Replacing course with DH 226
Fall 2007	D	DH	202	Dental Science II	2	Sequential courses designed to integrate dental anatomy, emergency procedures, embryology, head and neck anatomy, histology, general pathology, oral pathology, and periodontology. Topics correlate with dental hygiene curriculum. Emphasis on knowledge and skills necessary to treat patients. Prerequisite: DH 201		Replacing course with DH 237

Fall 2007	D	DH	203	Dental Science III	3	Sequential courses designed to integrate dental anatomy, emergency procedures, embryology, head and neck anatomy, histology, general pathology, oral pathology, and periodontology. Topics correlate with dental hygiene curriculum. Emphasis on knowledge and skills necessary to treat patients. Prerequisite: DH 202	Replacing course with DH 244
Fall 2007	N	DH	226	Head and Neck Anatomy	2	Head and neck anatomy correlated with clinical considerations for the dental hygienist. Anatomical nomenclature, primary and permanent dentitions, skeletal system, muscular system, head and neck structures, vascular system, nervous system, lymphatics, fascia and spaces, and spread of dental infection. Prerequisite: Admission to the dental hygiene program	Replacing DH 201
Fall 2007	N	DH	237	Oral Histology and Embryology	2	Oral histology and embryology correlated with clinical considerations for the dental hygienists. Developmental periods, development of oral tissues and head and neck structures and histology of hard and soft tissues of the teeth and associated structures. Prerequisite: DH 226	Replacing DH 202
Fall 2007	N	DH	244	General and Oral Pathology	3	Introduction to general pathology and common oral pathologies. Cell pathology, inflammation, immunity, neoplasia, traumatic lesions, inflammatory lesions, oral diseases with autoimmune components, and neoplasia. Descriptive terminology and differential diagnosis will be introduced. Prerequisite: DH 237	Replacing DH 203
Spring 2008	N	DH	254	Introduction to Periodontology	1	Introduction to periodontology with emphasis on etiology and pathogenesis of periodontal disease, disease classification, and assessment procedures. Prerequisite: DH 244	
Spring 2008	N	DH	267	Emergency Procedures	3	Prevention, preparation, and management of emergency situations common in the dental environment. Individual and team practice in carrying out emergency procedures. Prerequisite: DH 203	

Fall 2007	M	DH	275	Dental Ethics	1	Professional Ethics and Legal Requirements of the Profession. Prerequisite: Admission into the dental hygiene program	Title Description	
Fall 2007	D	DH	276	Research & Ethics II	1	Introduction to the scientific method. Current literature relating to foundational dental hygiene, needs and characteristics of children and adolescents are discussed and critqued. Ethical cases relating to the quarter's theme are analyzed. Clincial case presentations. Prerequisite: DH 275		
Fall 2007	D	DH	277	Research & Ethics III	1	Introduction to the scientific method. Current literature relating to foundational dental hygiene, needs and characteristics of children and adolescents are discussed and critqued. Ethical cases relating to the quarter's theme are analyzed. Clincial case presentations. Prerequisite: DH 276		
Fall 2007	D	DH	301	Dental Science IV	3	Sequential courses designed to integrate dental anatomy, emergency procedures, embyology, head and neck anatomy, histology, general pathology, oral pathology, and periodontology. Topics correlate with dental hygiene curriculum. Emphasis on gingival and periodontal diseases and body systems' pathology. Prerequisite for DH 301 - DH 203 Prerequisite for DH 302 - DH 301 Prerequisite for DH 303 - DH 302		Replacing course with DH 354
Fall 2007	D	DH	302	Dental Science V	2	Sequential courses designed to integrate dental anatomy, emergency procedures, embyology, head and neck anatomy, histology, general pathology, oral pathology, and periodontology. Topics correlate with dental hygiene curriculum. Emphasis on gingival and periodontal diseases and body systems' pathology. Prerequisite for DH 301 - DH 203 Prerequisite for DH 302 - DH 301 Prerequisite for DH 303 - DH 302		Replacing course with DH 366
Fall 2007	N	DH	354	Periodontology	3	Evidence-based approach to treatment of periodontal disease including nonsurgical and surgical treatment. Root anatomy relating to effective instrument adaption. Treatment planning for patients with all types of classifications of periodontal disease. Prerequisite: DH 204		Replacing DH 301

Fall 2007	M	DH	363	Dental Materials	3	General properties, composition and manipulation of common dental materials. Expanded functions including denture relines and amalgam polishing are practiced.	Title Credit hours Description Lecture hours	
Fall 2007	D	DH	364	Dental Materials II	3	Expanded dental hygiene functions are practiced including denture labeling, denture relines, amalgam plishing and placement of restorations. Prerequisite: DH 363	Delete from Curriculum	
Fall 2007	N	DH	366	Dental Anatomy	2	In depth study of crown and root morphology of primary and permanent dentitions with tooth restoration considerations. The temporomandibular joint and occlusion will also be studied. Prerequisite: DH 354		Replacing DH 302
Fall 2007	D	DH	375	Research & Ethics IV	1	Current literature relating to the needs and characteristics of independent adults, geriatrics, and special needs patients are discussed and critqued. Ethical cases relating to the quarter's theme are analyzed. Clinical case presentations. Prerequisite: DH 277	Delete from Curriculum Delete from Catalog	
Fall 2007	D	DH	376	Research & Ethics V	1	Current literature relating to the needs and characteristics of independent adults, geriatrics, and special needs patients are discussed and critqued. Ethical cases relating to the quarter's theme are analyzed. Clinical case presentations. Prerequisite: DH 375		
Fall 2007	D	DH	377	Research & Ethics VI	1	Current literature relating to the needs and characteristics of independent adults, geriatrics, and special needs patients are discussed and critqued. Ethical cases relating to the quarter's theme are analyzed. Clinical case presentations. Prerequisite: DH 376		
Summer 2007	N	DH	401	Overview of Advanced Dental Hygiene	3	Introduction to the online degree completion program. Career opportunities, roles of the dental hygienist, and the different emphases within the program are explored.		
Fall 2007	M	DH	461	Restorative Dentristry I	2	Properties of restorative dental materials. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts in restorative Dentistry I and on patients in Restorative Dentistry II and III Prerequisite: DH 364	Delete from Curriculum	

Fall 2007	M	DH	462	Restorative Dentistry II	2	Properties of restorative dental materials. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts in restorative Dentistry I and on patients in Restorative Dentistry II and III Prerequisite: DH 461	Credit hours Lecture hours	
Fall 2007	N	DH	463	Restorative Dentistry III	2	Properties of restorative dental materials. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restoration on typodonts in restorative Dentistry I and on patients in Restorative Dentistry II and III Prerequisite: DH 462		
Fall 2007	M	DH	475	Dental Hygiene Research Methods I	2	Evidence based practice is introduced. Current literature is reviewed and evaluated. Research ethics are discussed. Students write a literature review.	Title Credit hours Description Lecture hours	
Fall 2007	M	DH	476	Dental Hygiene Research Methods II		Students design and implement a pilot study.	Title Credit hours Description Lecture hours Lab hours	
Fall 2007	M	DH	477	Dental Hygiene Research Methods III	2	Students analyze study data and document results.	Title Credit hours Description Lecture hours	
Spring 2008	N	DMS	337	Breast Sonography		Breast Sonography scanning procedures with an emphasis on 2D, 3D, 4D, panoramic, Doppler, color Doppler, and Invasive applications. Correlation with mammography, MRI, and other imaging modalities. Prerequisite: DMS 225 with grade C or better		
Fall 2007	M	DMS	343	Fetal Echo and Neonatal Sonography	3	Fetal cardiac development and normal anatomy. Fetal echocardiographic 2D views, M-Mode, Doppler, and color Doppler. Common fetal cardiac pathology and anomalies. Neonatal topics include hip and neurological sonographic applications. Prerequisite: DMS 334	Title Description Prerequisite	
Fall 2007	N	DMS	346	Musculoskeletal Sonography		Musculoskeletal sonographic scanning procedures with an emphasis on shoulder, wrist and knee applications. Correlation with other imaging modalities. Prerequisite: DMS 225 with grade "C" or better.		

Fall 2007	N	DMS	388	Externship Preparation	2	<p>Presentation of key concepts related to Diagnostic Medical Sonography externship and required in-services. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the clinical environment. Review and discussion of the DMS Externship Handbook.</p> <p>Prerequisites: DMS 334, 316, 353 with grade "C" or better</p> <p>Corequisites: DMS 344, 354, 365</p>		
Fall 2007	M	ECO	201N	Principles of Economics, Microeconomics	3	<p>Topics include scarcity, consumer choice, supply and demand, elasticity, cost and pricing theory, theory of market structures (competition, monopoly, monopolistic competition, oligopoly).</p> <p>Prerequisite/Corequisite: MATH 105 or MATH 111</p>	Term offered	
Fall 2008	M	ECHO	225	Cardiopulmonary Patient Management	3	<p>Current issues in the practice of echocardiography with emphasis on the technologist's responsibilities to the patient, the patient's family and the professions of echocardiography. Transporting critically ill patients and recognizing emergency situation. Prerequisite: ECHO 231. Co-requisites: ECHO 232, 332</p>	Corequisite Hours Lecture Hours Lab Hours	
Spring 2008	N	ECHO	227	Basic ECG Recognition and Testing	3	<p>Basics of ECG testing, heart pressures, blood volume/physiology and the electrical conduction system. Focus on interpretation of ECG rhythms: normal ECG, ventricular hypertrophy, bundle branch block, AV block, myocardial ischemia, bradycardia, tachycardia, atrial fibrillation, ventricular fibrillation and irregular rhythms.</p>		
Fall 2008	N	ECHO	231	Echocardiography I	4	<p>An introduction to scanning techniques and tomographic views according to the American Society of Echocardiography standards. B-mode, image, pulsed and continuous wave Doppler, and color-flow imaging. Prerequisites: BIO 220, BIO 346, ECHO 320. Corequisites: BIO 347, VAS 210.</p>		

Fall 2008	N	ECHO	232	Echocardiography II	4	An intermediate level of instruction in scanning techniques and tomographic views according to the American Society of Echocardiography standards. Emphasis on Cardiac pathology and the echocardiography evaluation. Prerequisites: ECHO 231, BIO 347, VAS 210. Corequisites: ECHO 225, ECHO 332, VAS 211.		
Fall 2008	M	ECHO	320	Cardiographic Methods	4	Recognition of ECG tracing with normal and abnormal arrhythmias, treadmill testing, holter monitoring, phonocardiography, and heart auscultation. Review of case examples for analysis and synthesis. Prerequisite: MIT 103 with grade "C" or better.	Corequisite Hours	Credit Description Lab Hours
Fall 2008	M	ECHO	321	Stress and Transesophageal ECHO	3	Cardiac applications, protocols, and techniques related to stress echo and transesophageal echo. TEE anatomy, acquisition of images and the cardiovascular operating room. Particular emphasis on the mitral valve and surgical repairs. Prerequisites: ECHO 225, 232, 332, VAS 211	Corequisite Hours	Credit Lecture Hours Prerequisites
Fall 2007	D	ECHO	323	Case Analysis	4	Echocardiography case analysis and accuracy validation using all applications of cardiac ultrasound. Various case examples presented for review, calculation, and interpretation.	Delete from Curriculum	Delete from Catalog
Fall 2008	M	ECHO	325	Pediatric Echocardiography	3	Congenital heart disease, including neonate/infant and adult disorders. Congenital disorders including cardiac situs, ventricular morphology, great artery connections, valvular and subvalvular obstruction, atrial septal defect, ventricular septal defect. Prerequisites: ECHO 321, 333. Corequisites: ECHO 376, CHEM 210.	Corequisites Prerequisites	
Fall 2008	M	ECHO	332	Invasive Cardiology	3	Cardiac catheterization testing. Coronary artery interventions such as percutaneous transluminal coronary angioplasty (PTCA) and chamber pressure measurements. Prerequisites: ECHO 231, VAS 210, BIO 347. Corequisites: ECHO 225, ECHO 232	Corequisite Prerequisites	
Fall 2008	N	ECHO	333	Echocardiography III	4	An advanced level of instruction in scanning techniques and tomographic views according to the American Society of Echocardiography standards. Cardiac pathology, and advanced methods in echocardiography. Prerequisites: ECHO 225, 232, 332, and VAS 211. Corequisite: ECHO 321		

Fall 2008	M	ECHO	365	Abdominal/Renal Testing	4	Abdominal vascular anatomy and common disease processes. Students will be asked to perform basic abdominal vascular tests following very specific protocols and interpretations. Prerequisites: ECHO 325, 376 Corequisites: ECHO 385, 388	Corequisite Lecture Hours Lab Hours	
Fall 2008	M	ECHO	376	Survey of Vascular Technology	3	Basic vascular pathophysiology in carotid, arterial, and venous testing. Waveform recognition, interpretation, and protocols for testing. Prerequisite: ECHO 321, 333. Corequisite: ECHO 325, CHEM 210	Corequisite Prerequisite	
Fall 2008	M	ECHO	385	Echocardiography Lab Management	3	Focus on human resource skills as necessary to manage an echocardiography laboratory. Includes the interview process, hiring and firing, as well as employee performance evaluation. Other topics will include reimbursement, licensure, accreditation and other management issues.	Corequisite Prerequisite	
Fall 2008	N	ECHO	388	Externship Preparation	2	Review and summarization of key concepts in Echocardiography. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the hospital environment or independent echo lab. Review and discussion of the Echocardiography Externship Handbook. Prerequisites: ECHO 325, 376. Corequisites: ECHO 365, 385.		
Fall 2007	N	ECHO	421	ECHO Senior Project	4	Students design a research-based senior project in the field of echocardiography, including interviews, research, literature review and formal presentation of the project. Prerequisite: WRI 123 or 227, ECHO 240		
Fall 2007	N	EET	100	Basic Electricity, Electronics and Safety	4	Basic introduction to electrical and electronic circuits. DC/AC circuits, basic electronic devices, introduction to digital logic and embedded systems. Emphasis on health applications and safety.		
Fall 2007	D	ENG	281	Contemporary World Literature	3	An in-depth study of selected writers and works organized thematically, geographically, and ethnically. The focus on contemporary works provides insight into current world cultures and explores globalization while encouraging students to critically examine their worldviews.		Changed to ENG 381

Fall 2007	M	ENG	367	Art and Trash in Contemporary Fiction	3	In-depth study of contemporary fiction, finding meaning in literature responsive to the human condition and relevant to the reader. Includes works from authors such as Margaret Atwood, Tim O'Brien, Alice Munro and Anthony Doerr. Prerequisite: WRI 122	Prerequisite	
Fall 2007	N	ENG	381	Contemporary World Literature	3	An in-depth study of selected writers and works organized thematically, geographically, and ethnically. The focus on contemporary works provides insight into current world cultures and explores globalization while encouraging students to critically examine their worldviews. Prerequisite: WRI 122		
Fall 2007	M	GEOG	106	Cultural Geography I	3	An introduction to cultural geography of selected world realms, namely Europe, the republics of the former Soviet Union, and the Austral Realm - Australia and New Zealand. Cultural imprints on the physical landscape will be discussed and regional approach emphasized.	Description	
Fall 2007	M	GEOG	107	Cultural Geography II	3	An introduction to cultural geography of selected world realms, namely Middle America, South America, and Africa. Cultural imprints on the physical landscape will be discussed and regional approach emphasized.	Description	
Fall 2007	N	GEOG	108	Cultural Geography III	3	An introduction to cultural geography of selected work realms, namely The Middle East, South Asia, East Asia, Southeast Asia, and The Pacific Realm. Cultural imprints on the physical landscape will be discussed and regional approach emphasized.		
Fall 2007	M	GME	161	Plane Surveying I	4	Fundamental concepts of plane surveying including theory of measurements, systematic and random errors. Distance and angle measurement using total stations and differential leveling. Calculation of bearings, azimuths, coordinates, area and traverse adjustments. Introduction to horizontal and vertical curve computations. Corequisite: MATH 111	Credit hours	

Fall 2007	N	HIST	356	A History of Energy	3	Study of the emphasis societies place on the development, safeguarding and exploitation of energy resources. Development of energy resources since the Industrial Revolution; exploitation of energy resources; oil shocks of the 1970's, glut of the 1980's; the modern energy paradigm. Prerequisite: WRI 123 or WRI 227		
Fall 2007	D	HSC	200	Medical Terminology	2	Basic structure of medical works including prefixes, suffixes, roots and combining forms. Correct spelling, pronunciation, and meaning of terms are stressed.		Replacing course with BIO 200
Fall 2007	D	HSC	205	Nutrition	3	A study of relationships of food and nutrition to health. An overview of the basic nutrition principles including the nutrients and how they function in the body, nutrient requirements, diet planning, and energy balance. Current topics and controversies are examined. Prerequisite/Corequisite: CHE 103 or BIO 213 or instructor consent		Replacing course with BIO 205
Fall 2007	D	HSC	311	Medical Genetics	3	Principals of heredity, chromosome mechanisms, and molecular genetics applied to disease processes in humans. Review of case histories of selected inherited disorders. Discussion of genetic intervention therapies. Prerequisite: BIO 213 or instructor consent		Replacing course with BIO 341
Fall 2007	D	HUM	317	Native American Teachings	3	Native American experience through oral and written tradition. Philosophy, mythology, symbolism and spiritual beliefs of Native Americans studied with focus on perspectives of Mayan, Hopi, and Lakota lifeways and values. Prerequisite: ANTH 221 or ANTH 222		Delete from Catalog
Fall 2007	M	IMGT	457	Case in Strategic Management	3	Study of complex situational problems faced by actual firms. Intensive analysis and presentation of action plans based on core courses. Prerequisites: IMGT 311, IMGT 345 Prerequisite/Corequisite: IMGT 336	Term offered	

Fall 2007	M	IMGT	486	The Lean Enterprise	3	Lean thinking as applied to production and service operations. Kaizen, kaikaku, pull production and systems, value stream mapping and analysis. Standardized work charts and combination tables to streamline work content and achieve flow. Identifying sources of muda and its elimination. Prerequisite: BUS 434 or IMGT 311	Prerequisite	
Fall 2007	M	MATH	361	Statistical Methods	4	Graphical representation of statistical data, measures of central tendency and variability, and elementary probability. Applications of binomial, normal, "t," "F," and chi-square distributions; tests of hypothesis; regression and correlation analysis. Multiple regression, analysis of variance and design and analysis of experiments. Prerequisite: MATH 111 or instructor consent	Term offered	
Fall 2007	N	MFG	445	Plant Layout and Handling Systems	3	In-depth study of facilities planning for manufacturing engineers. Focus is on layout optimization algorithms and applications, work cell design, warehouse design, materials handling systems, process/product/material/labor cost estimates and evaluations, and agile manufacturing. Prerequisites: MFG 112, 313		
Fall 2007	M	MFG	461	Senior Project I	3	The first term of the three term comprehensive capstone manufacturing project. This term concentrates on the development and presentation of a formal project proposal, followed by early stages of project development. Prerequisites: MFG 331, 342, 313 or instructor consent. Corequisite: WRI 321	Prerequisite	
Fall 2007	M	MIS	130	Computer Organization	4	Introduces number systems, Boolean algebra, digital logic, computer arithmetic, instruction sets, memory, system software, and network organization and architecture. Laboratory exercises on digital logic, computer architecture, machine language and assembly language programming. Completion of a programming project. Corequisite: MATH 100	Description Add to curriculum	

Fall 2007	N	MIS	217	Introduction to Health Care Industry	3	Overview of functions in US health care systems. Historical evolution of health care is examined. Forms of provider models and service delivery systems are introduced. Roles of participants and interactions between health care and their influence on health care delivery and quality are outlined.		
Fall 2007	N	MIS	345	Health Care Technology/ Infrastructure	3	Information systems within healthcare organizations are examined. Business, clinical, and healthcare delivery processes are identified as they relate to data acquisition and information systems. Key issues confronting design, organization and management of healthcare systems are identified, examined, and solutions are explored and developed. Prerequisite: MIS 217		
Fall 2007	N	MIS	355	Introduction to Health Informatics	3	The discipline of health informatics is introduced, including history, basic knowledge of health informatics, data management, vocabularies, standards and tools as applied in support of health care delivery. Prerequisite: MIS 217		
Fall 2007	N	MIS	445	Legal, Ethical and Social Issues in Health Care Technology	3	Legal, ethical, and social issues in health care, especially as they impact systems design, development, use and management will be examined. Prerequisite: MIS 217, MIS 345		
Spring 2008	N	NMT	256	Cardiovascular Imaging	2	Introduction to Cardiovascular Imaging techniques in Nuclear Medicine including planar, SPECT, and PET imaging acquisition and processing protocols, radiopharmaceuticals, cardiac anatomy and physiology, exercise and pharmacological stress testing, and EKG principles. Prerequisites: NMT 205, 217, 215		
Fall 2007	M	NMT	311	In-Vivo Procedures	4	Patient care of procedures performed in a Nuclear Medicine Department. Administration of prescribed radiopharmaceuticals. The use of imaging devices and external detectors for body organ positioning and imaging. Introduction to various acquisition and processing techniques including Static, Dynamic and SPECT. Prerequisite: NMT 225 with grade "C" or better	Description	

Winter 2008	N	NMT	355	Computed Tomography	3	X-ray physics, scanner components and data acquisition of computed tomography (CT). CT Image reconstruction, manipulation and artifacts. CT patient care and imaging procedures of the head, neck, spine, chest, abdomen, pelvis and musculoskeletal system. Prerequisite: NMT 311 with grade "C" or better Corequisites: NMT 367, BIO 335		
Winter 2008	N	NMT	367	PET Imaging	3	Introduction to Positron Emission Tomography (PET) imaging techniques including acquisition protocols, processing protocols, quality control procedures, radiation protection, patient screening, radiopharmaceuticals, image fusion, and imaging procedures. Prerequisite: NMT 311 Corequisites: BIO 335, NMT 355		
Spring 2008	N	NMT	388	Extern Preparation	2	Review and summarize key concepts in Nuclear Medicine. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the hospital environment. Review and discussion of the NMT Externship Handbook and Procedures Log. Prerequisites: NMT 365, BIO 335 Corequisites: NMT 313, NMT 325		
Fall 2007	N	PSG	211	Fundamentals of Polysomnography and Patient Care	3	Basic concepts of patient care, including consideration of physical and psychological needs of the patient and family. Routine and emergency patient care procedures. Infection control procedures utilizing universal precautions. Role of the polysomnographic technologist in patient education. Ethical and legal issues.		
Fall 2007	N	PSG	221	Physiology of Sleep	3	Introduction to sleep architecture and the function of changes in electroencephalograms, electrocardiograms, and electromyograms. Physiology of sleep induced alterations in pharyngeal muscle tone, automatic control and polysomnographic staging.		

Fall 2007	N	PSG	231	Sleep Disorders Pathology	4	Normal and abnormal sleep disorders integrating the physiological functions of the nervous, respiratory, and cardiovascular systems. Emphasis on basic sleep sciences, physiology, diagnosis and treatment of sleep disorders. Prerequisite: PSG 221		
Fall 2007	N	PSG	252	Clinical Polysomnographic Technology I	6	Medical terminology, instrumentation setup and calibration, recording and monitoring techniques, documentation, professional issues, and patient-technologist interactions related to polysomnographic technology. Prerequisite or Corequisite: PSG 211		
Fall 2007	N	PSG	253	Clinical Polysomnographic Technology II	6	Intermediate aspects of polysomnographic technology including event recognition, EEG, EMG, SaO ₂ , and EOG readings and monitoring, therapeutic interventions, scoring, and patient-technologist interactions related to polysomnographic technology. Prerequisite: PSG 252		
Fall 2007	N	PSG	254	Clinical Polysomnographic Technology III	6	Advanced aspects of polysomnographic technology including recognition of sleep disorders, recording and monitoring, therapeutic interventions, scoring, and Multiple Sleep Latency Tests (MSLT) and Repeated Test of Sustained Wakefulness (RTSW), advanced cardiac and neurophysiology interpretation and pharmacology of sleep. Prerequisite: PSG 253		
Fall 2007	N	PSG	264	Pediatric/Neonatal Polysomnography	3	Presentation of theory and its practical applications in pediatric and neonatal respiratory disease states. Includes pathophysiology, etiology, patient testing, scoring and treatment. Prerequisite: PSG 221		
Fall 2007	M	PSY	351	Cognitive Restructuring I	4	Philosophy behind criminal thinking errors, which influence their thought patterns. Laboratory component includes participation in client groups and casework. Prerequisite: PSY 334 or PSY 301	Prerequisite	
Fall 2007	N	PSY	358	Psychology of Gender	3	Psychological examination of the functioning, socialization, self-concept, and roles of women and men. Issues that women and men face in the gendered world are critically analyzed scientifically and experientially. Prerequisite: PSY 201		

Winter 2007	N	PSY	371	Human Sexuality I	3	Social, cultural, psychological and physiological influences on human sexuality are examined. Topics include: theory and research, gender, anatomy and functioning, human relationship components including love and communication. Prerequisites: PSY 201, 202 or 203		
Spring 2007	N	PSY	372	Human Sexuality II	3	Social, cultural, psychological and physiological influences on human sexuality are examined. Topics include: sexual orientation, pregnancy, contraceptive practices, sexual dysfunctions, sexually transmitted infections, paraphilias, sexual assault, media images, the sale of sex. Prerequisite/Corequisite: PSY 371		
Spring 2008	N	PSY	480	Theories of Learning	4	The basics of the major learning theories as they apply to operant and respondent conditioning, social learning and memory. Prerequisite: PSY 335		
Fall 2007	M	RCP	261	Clinical I	3	Sequential courses designed to provide clinical competence essential to the practice of respiratory care. Competence developed in the area of basic patient assessment, oxygen therapy, aerosol therapy, medical charting and professional communication. Prerequisite: RCP 281, BIO 105	Term offered Prerequisite	
Fall 2007	M	RCP	262	Clinical II	3	Sequential courses designed to provide clinical competence essential to the practice of respiratory care. Competence developed in the area of basic patient assessment, ABG's, hyperinflation therapies, medical charting and professional communication. Prerequisite: RCP 281, BIO 105. Prerequisite: RCP 251	Term offered Prerequisite	
Fall 2007	N	RDSC	388	Externship Preparation	2	Presentation of key concepts related to Radiologic Science externship and required in-services. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the clinical environment. Review and discussion of the RDSC Handbook. This course is a mandatory course that must be completed prior to externship. Prerequisite: RDSC 326 and RDSC 371 with grade "C" or better. Corequisite: RDSC 355, RDSC 356 and RDSC 354 or 365.		

Fall 2007	M	REE	241	Electrical Power	4	<p>Fundamentals of electrical power; maximum power transfer, single-phase circuits, three-phase circuits, wye-delta transformations, power factor, harmonics. Electrical power systems studied include: transmission lines, power transformers, autotransformers, three-phase transformers, resonance and power factor correction, building electrical systems, the national power grids.</p> <p>Prerequisites: EE 223, MATH 252 with grade "C" or better</p> <p>Corequisite: REE 242</p>	<p>Corequisite Number Description Prerequisite</p>	Replacing RES 211
Fall 2007	N	REE	251	Electromechanical Energy Conversion	3	<p>AC machines, including single phase, split-phase and three-phase (induction and synchronous machines) motors and generators; introduction to power switching devices, speed control and brushless DC motors. DC machines including shunt, series and compound. Control devices and circuits, including ladder diagrams.</p> <p>Prerequisite: EE 223 and MATH 252 with grade "C" or better</p> <p>Corequisite: REE 252</p>		Replacing RES 231
Fall 2007	N	REE	315	Digital Logic	3	<p>Number systems; combinational logic including Boolean algebra, DeMorgan's Theorems and Karnaugh Maps; digital TTL and CMOS IC characteristics; conventional IC functions; an introduction to sequential logic including flipflops, counters, registers and state diagrams.</p> <p>Prerequisite: EE 221</p> <p>Corequisite: REE 316</p>		Replacing RES 315
Fall 2007	N	REE	339	Senior Project I	2	<p>Selection, definition, and analysis of a problem suitable for a renewable energy systems senior project prior. Includes consideration of project parameters, and implications, proposal of alternate solutions, and justification of selected solution. Culminates in the writing of project proposal.</p> <p>Prerequisite: WRI 227</p>		Replacing RES 339

Winter 2008	N	REE	344	Nuclear Energy	3	<p>Introduction to nuclear energy. Atomic and nuclear physics; the interaction of radiation and matter. Nuclear reactor operation; reactor components, nuclear cycles, neutron diffusion and moderation. Reactor shielding. Fuel reprocessing and waste disposal. Reactor licensing and safety. Economics and environmental concerns.</p> <p>Prerequisites: CHE 222, PHY 223</p>		
Summer 2007	N	REE	345	Wind Power	3	<p>Introduction to power production from wind resources. Historical uses of wind resources. The Earth's wind systems. Physics of wind power. Vertical and horizontal axis turbines. Aerodynamics of wind turbines. Large-scale turbine farms and siting. Commercial development, economics and environmental impacts.</p> <p>Prerequisites: RES 251, PHY 222</p>		
Spring 2008	N	REE	346	Biofuels and Biomass	3	<p>Introduction to power production from biomass resources. Historical uses of biomass resources. Biomass as a solar energy store; forestry and agricultural sources, crop wastes. Recycled sources; municipal solid wastes, landfill gas. Gaseous fuels; anaerobic digestion, gasification, Liquid fuels; fermentation, hydrolysis, transesterification.</p> <p>Prerequisites: CHE 222, PHY 222</p>		
Spring 2007	N	REE	347	Hydroelectric Power	3	<p>Introduction to hydro-resource power production. Hydro-power in history. Physics of hydrology. Power, head, flow-rate. Turbine hydrodynamics; Francis, Kaplan, Pelton, Turgo, cross-flow. System components: generators, governors, penstocks, spillways, valves, gates, trashracks. Large-scale and microhydroelectric systems. Pumped storage. Economic, environmental considerations.</p> <p>Prerequisites: REE 251, MECH 218</p>		

Fall 2008	N	REE	348	Solar Thermal Energy Systems	3	Introduction to solar thermal energy systems for residential, commercial and industrial applications. Solar radiation; topics in heat transfer; flat plate and concentrating collectors; non-imaging optics; applications including water heating, building heating, cooling, industrial process heat, distillation, solar thermal power systems. Prerequisites: PHY223, MECH 323	
Fall 2007	N	REE	412	Photovoltaic Systems	3	Grid-connected and stand-alone PV systems. Module and array performance analyzed using Sandia's IV tracer software. PV system components including batteries. PV modules, charge controllers, maximum power point trackers and inverters will be discussed. Power inverter parameters will be evaluated. Prerequisite: EE 343	Replacing RES 411
Fall 2007	N	REE	413	PV Power Systems	3	Review of power BJT and FET characteristics and power amplifiers; study of power inverter topologies, DC to DC, DC to AC, inverter control; resonant inverters; charge controllers; maximum power point trackers; and sun tracker controllers. Prerequisites: EE 419, REE 412	Replacing RES 413
Fall 2007	N	REE	421	Energy Systems Design	3	Integration of energy system functions in a typical building including codes and standards; energy economics; electrical system optimization; waste heat recovery; utility system optimization; HVAC and building system optimization. Prerequisite: MECH 323	Replacing RES 421
Fall 2007	N	REE	451	Geothermal Ground-Source and Thermal Heat Pumps	3	An introduction to geothermal energy resources. Discussion of heat flow mechanisms. Investigation into heat exchange systems including: binary, flash, double flash, total flow. Application of thermal dynamics in analysis, design and control of heating/cooling systems. Prerequisite: MECH 323	Replacing RES 451
Fall 2007	N	REE	463	Energy Systems Instrumentation and Control	3	Application of electrical and mechanical sensors, data acquisition and logic controllers as applied to energy systems. Determination of physical parameters necessary for control and data-logging. Methods of calibration and correction. Lab projects employ programmable logic controllers.	Replacing RES 463

Fall 2007	N	REE	465	Renewable Energy Transportation Systems	3	Renewable energy transportation systems including fuel cells, hybrid gasoline-electric engines, electric vehicles, bio-diesel, flex-fuel vehicles, high-efficiency diesel engines, gas turbine prime mover systems. Topics include fuel-air mixing, fuel storage, fuel delivery, cooling, fuel leak detection, chemical safety, and electrical power control systems. Prerequisites: MECH 323, REE 251	Replacing RES 465
Fall 2007	D	RES	231	Electric Motors	3	Review of magnetic circuits and transformers; DC motors including shunt, compound and series; DC motor control speed; AC motors, induction, synchronous, single phase; introduction to three-phase AC motors and AC motor speed control. Prerequisite: RES 211/RES 212 with grade "C" or better Corequisite: RES 232	Replacing course with REE 251
Fall 2007	D	RES	315	Digital Logic	3	Number systems; combinational logic including Boolean algebra, DeMorgan's Theorems and Karnaugh Maps; digital TTL and CMOS IC characteristics; conventional IC functions; an introduction to sequential logic including flipflops, counters, registers and state diagrams.	Replacing course with REE 315
Fall 2007	D	RES	339	Senior Project I	2	Selection, definition, and analysis of a problem suitable for a renewable energy systems senior project prior. Includes consideration of project parameters, and implications, proposal of alternate solutions, and justification of selected solution. Culminates in the writing of project proposal. Prerequisite: WRI 227	Replacing course with REE 339
Fall 2007	D	RES	411	Photovoltaic Systems	3	Grid-connected and stand-alone PV systems. Module and array performance analyzed using Sandia's IV tracer software. PV system components including batteries. PV modules, charge controllers, maximum power point trackers and inverters will be discussed. power inverter parameters will be evaluated. Prerequisite: RES 355	Replacing course with REE 412

Fall 2007	D	RES	413	PV Power Systems	3	Review of power BJT and FET characteristics and power amplifiers; study of power inverter topologies, DC to DC, DC to AC, inverter control; resonant inverters; charge controllers; maximum power point trackers; and sun tracker controllers. Prerequisites: RES 341, RES 342, RES 411		Replacing course with REE 413
Fall 2007	D	RES	421	Energy Systems Design	3	Integration of energy system functions in a typical building including codes and standards; energy economics; electrical system optimization; waste heat recovery; utility system optimization; HVAC and building system optimization. Prerequisites: RES 325, RES 355		Replacing course with REE 421
Fall 2007	D	RES	451	Geothermal Ground-Source and Thermal Heat Pumps	3	An introduction to geothermal energy resources. Discussion of heat flow mechanisms. Investigation into heat exchange systems including: binary, flash, double flash, total flow. Application of thermal dynamics in analysis, design and control of heating/cooling systems. Prerequisite: RES 421		Replacing course with REE 451
Fall 2007	D	RES	453	Energy Systems Instrumentation and Control	3	Application of electronic, mechanical and computer measurements to data acquisition and control of photovoltaic, fuel-cell, ground-source heating/cooling, and wind energy systems. Determination of physical parameters necessary to control and data-log energy systems are discussed. Design of instrumentation necessary to provide control and data logging. Prerequisites: RES 421, RES 443, 444		Replacing course with REE 463
Fall 2007	D	RES	465	Renewable Energy Transportation Systems	3	Renewable energy transportation systems including fuel cells, hybrid gasoline-electric engines, electric vehicles, bio-diesel, flex-fuel vehicles, high-efficiency diesel engines, gas turbine prime mover systems. Topics include fuel-air mixing, fuel storage, fuel delivery, cooling, fuel leak detection, chemical safety, and electrical power control systems. Prerequisites: RES 325, RES 413		Replacing course with RES 465
Fall 2007	M	SPE	111	Fundamentals of Speech	3	Projects in public speaking with emphasis on content, organization, and speaker adjustments to various situations; dynamics of speaker-listen interaction; and appropriate language usage. Exercises in listening, criticism, logic, support, and ethics.	Term offered	

Fall 2007	M	SPE	321	Small Group and Team Communication	3	Instruction and experience in decision making through group processes with the objectives of developing competent team leaders and participants. Participation in and evaluation of a variety of group communication exercises. Prerequisite: SPE 111	Term offered	
Fall 2007	M	WRI	227	Technical Report Writing	3	Practice in techniques of gathering, organizing, and presenting technical information. Technical reports derived from realistic situations found in the student's major will be written. Prerequisite: WRI 122 Prerequisite/Corequisite: SPE 111	Term offered	
Fall 2007	M	VAS	214	Vascular Anatomy	4	Detailed consideration of the gross and microscopic anatomy of arteries and veins throughout the human body. Laboratory includes cadaver dissection, anatomical models, and an introduction to instrumentation and basic ultrasound scanning techniques. Prerequisite: MIT 103 with grade "C" or better Corequisites: BIO 220, PHY 217	Corequisite Prerequisite	
Fall 2007	M	VAS	225	Patient Management Practices	3	Current issues in the practice of vascular technology with emphasis on basic concepts of patient care, infection control procedures, and the technologist's responsibility to the patient, the patient's family, and the vascular technology profession. Prerequisites: BIO 347, VAS 210, VAS 245, VAS 335 Corequisites: VAS 211, 246	Corequisite Prerequisite	
Fall 2007	M	VAS	245	Peripheral Venous Disease	4	Investigation of the pathophysiology of venous disease with emphasis on theoretical and practical considerations of diagnostic methods of venous testing. These include clinical assessment, plethysmography, and duplex imaging of lower and upper extremity veins. Prerequisites: BIO 220, BIO 346, PHY 217, VAS 214 Corequisites: BIO 347, VAS 210, VAS 335	Corequisite Prerequisite	

Fall 2007	M	VAS	246	Peripheral Arterial Disease	4	Investigation of the pathophysiology of arterial occlusive disease with emphasis on the theoretical and practical considerations of diagnostic methods of arterial testing. These include clinical assessment, physiological evaluation, and duplex imaging of lower and upper extremity arteries. Prerequisites: BIO 347, VAS 210, VAS 245, VAS 335 Corequisites: VAS 211, VAS 225	Corequisite Prerequisite	
Fall 2007	D	VAS	321	Echocardiography I	3	An introduction to scanning techniques and tomographic views according to the American Society of Echocardiography standards. B-mode image, pulsed and continuous wave Doppler, and color-flow imaging. Prerequisite: BIO 220, VAS 246		Delete from Curriculum Delete from Catalog
Fall 2007	D	VAS	322	Echocardiography II	3	An intermediate level of instruction in scanning techniques and tomographic views according to the American Society of Echocardiography standards. Emphasis on cardiac pathology and the echocardiography evaluation. Prerequisite: VAS 321		Delete from Curriculum Delete from Catalog
Fall 2007	D	VAS	323	Echocardiography III	3	An advanced level of instruction in scanning techniques and tomographic views according to the American Society of Echocardiography standards. Cardiac pathology, pediatric anomology and advanced methods in echocardiography. Prerequisite: VAS 322		Delete from Curriculum Delete from Catalog
Fall 2007	M	VAS	335	Radiographic Vascular Anatomy	3	Survey of medical imaging modalities ancillary to vascular sonography including angiography, digital subtraction angiography, computerized tomography and magnetic resonance angiography. Student teams will prepare case studies comparing the efficacy of these imaging modalities. Prerequisites: BIO 220, BIO 346, PHY 217, VAS 214 Corequisites: BIO 347, VAS 210, VAS 245	Corequisite Prerequisite	
Fall 2007	N	VAS	337	Survey of Echocardiography	3	A survey of basic echocardiography with emphasis on normal cardiac anatomy and abnormal disease states. Standard sonographic imaging techniques of adult echocardiography, including instrumentation and protocols. Prerequisites: BIO 220, VAS 247		

Fall 2007	M	VAS	365	Abdominal Vascular Disease	4	Diagnostic methods of abdominal and visceral vascular disease testing. Includes aoro-iliac, renal artery and kidney, mesenteric system, liver system, and transplantations. Laboratory emphasizes advanced instrumentation and scanning techniques, patient interviews, clinical signs and symptoms, physical assessment and findings. Prerequisites: VAS 211, VAS 225, VAS 246 Corequisite: VAS 337	Corequisite Prerequisite	
Fall 2007	M	VAS	366	Special Circulatory Problems	4	Diagnostic methods of testing the efficacy of vascular surgical procedures (including arterial bypass grafts, interventional radiographic procedures, organ transplants, and dialysis access grafts. Vein and arterial mapping prior to bypass surgery including IMA evaluation, intravascular ultrasound, pseudoaneurysm compression, and compartment syndrome. Prerequisites: VAS 365, VAS 337 Corequisites: CHEM 210, VAS 375	Corequisite Prerequisite	
Fall 2007	M	VAS	367	Cerebrovascular Disease	4	Theoretical and practical considerations of diagnostic methods of testing arterial and venous diseases affecting the vasculature of the head and neck including the intracerebral vessels. Laboratory includes advanced instrumentation and scanning techniques, and instruction on patient interviewing, clincial signs and symptoms, physical assessment and findings. Prerequisites: CHEM 210, VAS 366, VAS 375 Corequisites: VAS 385, VAS 388	Corequisite Prerequisite	
Fall 2007	M	VAS	375	Survey of Abdominal Sonography	3	A survey of basic abdominal sonography with emphasis on normal abdominal anatomy and abnormal disease states. Standard sonographic imaging techniques of general abdomen, instrumentation, and abdominal protocols. Prerequisites: VAS 265, VAS 337 Corequisites: CHEM 210, VAS 366	Corequisite Prerequisite	

Fall 2007	M	VAS	385	Vascular Laboratory Management	3	Focus on human resource skills as necessary to manage a vascular laboratory. Includes the interview process, hiring and firing, as well as employee performance evaluation. Other topics will include reimbursement, licensure, accreditation and other management issues. Corequisites: VAS 367, VAS 388	Corequisite Prerequisite	
Fall 2007	N	VAS	388	Externship Preparation	2	Review and summarization of key concepts in Vascular Technology. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the hospital environment or independent vascular lab. Review and discussion of the Vascular Technology Externship Handbook. Prerequisites: VAS 366 and VAS 375 with grade "C" or better Corequisites: VAS 367 and 385		