

Curricular Changes for 2006 - 2007

Below are curriculum changes for Oregon Institute of Technology as approved by Curriculum Planning Commission during the 2005 - 2006 academic year. All changes will take effect beginning Fall 2006. For questions regarding these changes contact Wendy Pedersen, Associate Registrar, at (541) 885-1154 or wendy.pedersen@oit.edu

COURSE	TITLE/DESCRIPTION	NOTES
Course Title Changes		
CIV 315	Principles of Environmental Engineering	Used to be: Fundamentals of Environmental Engineering
COM 301	Rhetorical Theory and Application	Used to be: Theories & Applications of Communication
MATH 251	Differential Calculus	Used to be: Analytic Geometry and Differential Calculus
MATH 254N	Vector Calculus I	Used to be: Multi-variable Calculus and Vector Calculus
MECH 318	Fluid Mechanics I	Used to be: Fluid Mechanics
MECH 417	Fluid Mechanics II	Used to be: Gas Dynamics
MECH 436	Applied Control Systems	Used to be: Control Systems
MFG 331	Industrial Controls	Used to be: Controls and Instrumentation
	Lab Science Elective	Management-MIS Used to be Math/Science elective
Course Description Changes		
ACC 496 & ACC 497	Senior Project	Used to be: Development of a business plan and implementation of an activity-based project involving collection of information, proposal development, project design and implementation for the benefit of an external entity and OIT. Changed to: Development and implementation of an accounting related project for the benefit of an external entity and the student. Projects will include a proposal, analysis, design, and implementation. An oral presentation and project documentation will be required at the completion of each course.
ANTH 101	Physical Anthropology	added statement to course description: satisfies either a science or social science elective
BIO 231	Human Anatomy & Physiology I	Used to be: Intro to systematic studies of human anatomy & physiology. Study of principles of anatomy & physiology with emphasis on the operation of control systems. The integumentary, skeletal and muscular systems and the physiology of excitable tissues are considered in details. The laboratory sessions emphasize human anatomy with human cadavers for demonstration. Changed to: Intro to systematic studies of human anatomy & physiology. Intro to cytology and histology followed by the integumentary, skeletal, muscular and endocrine systems and the physiology of excitable tissues. The laboratory sessions emphasize human anatomy using models and human cadavers.

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BIO 232	Human Anatomy & Physiology II	Used to be: A continuation of the systematic study of human anatomy and physiology. The nervous, endocrine, cardiovascular, immune and respiratory systems are studied. Changed to: A continuation of the systematic study of human anatomy and physiology. The nervous, cardiovascular and immune systems are studied. The laboratory sessions emphasize human anatomy using models and human cadavers. Dissections and physiological experiments are conducted.
BIO 233	Human Anatomy & Physiology III	Used to be: the conclusion of the sequence in human anatomy and physiology. The digestive, renal and reproductive systems are examined. Human genetics and development are also studied. Changed to: Conclusion of the sequence in human anatomy and physiology. Digestive, respiratory, renal and reproductive systems are examined. Metabolism, human genetics and development are also studied. Laboratory sessions emphasize physiological experiments and human anatomy using models and human cadavers.
MATH 112	Trigonometry	Used to be: The trigonometric ratios and their applications with special emphasis on identities, trigonometric equations, vectors, and complex numbers. Prerequisite: Math 111 with grade "C" or better, or equivalent. Changed to: The trigonometric functions and their applications. Topics will include graphs, identities, trigonometric equations, vectors, and complex numbers. Prerequisite: Math 111 with grade "C" or better, or equivalent.
MATH 221	Introduction to Computational Software	Solve applied problems involving formulas and functions, summation and iteration using Excel and MATLAB. Use built-in functions and graphing capabilities of MATLAB and Excel. Do vector and matrix calculations with MATLAB, write function files in MATLAB. Write and execute macros in Excel. Changed to: Solve applied problems involving formulas, functions, summation and iteration using Excel and MATLAB. Use built-in functions and graphing capabilities of MATLAB and Excel. Do vector and matrix calculations and write function files using MATLAB. Write and execute macros in Excel.

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MATH 251	Differential Calculus	Used to be: Analytic treatments of lines, circles, parabolas, ellipses, hyperbolas, and rotation and translation of axes. Computational techniques for and applications of the derivative. Prerequisite: Math 112 with grade "C" or better, or equivalent. Changed to: Theory, computational techniques and applications of the derivative. Prerequisite: Math 112 with grade "C" or better, or equivalent
MATH 311	Advanced Calculus	Used to be: A one quarter stand-alone course on topics in advanced calculus, covering properties of real numbers, completeness axiom, continuity, convergence of sequences and series of numbers, convergence of sequences and series of functions. Emphasis will be placed on proofs. Changed to: A one quarter stand-alone course on topics in real analysis, covering properties of real numbers, completeness axiom, continuity, convergence of sequences and series of numbers, convergence of sequences and series of functions. Emphasis will be placed on proofs.
MATH 371 & MATH 372	Finite Mathematics & Calculus I, II	Used to be: Linear functions, matrices, linear programming, mathematics of finance, derivatives and their applications, exponential and logarithmic functions, the integral and its applications, and calculus of several variables. Prerequisite for MATH 371-Math 111 with grade "C" or better. Prerequisite for MATH 372-Math 371 with grade "C" or better. Not open to students who have credit for Math 251, Math 252, Math 253N or Math 254N. Changed to: Linear functions, matrices, linear programming, mathematics of finance, derivatives and their applications. The integral and its applications, and calculus of several variables. Prerequisite for MATH 371-Math 111 with grade "C" or better. Prerequisite for MATH 372-Math 371 with grade "C" or better.
MATH 254N	Vector Calculus I	Used to be: Vectors, differentiation and integration of vector-valued functions. Partial derivatives, multiple integrals and their applications. Changed to: Vectors, vector functions, and curves in two and three dimensions. Surfaces, partial derivatives, gradients, and directional derivatives. Multiple integrals using rectangular and other coordinate systems. Physical and geometric applications.
MECH 315	Machine Design I	Used to be: Knowledge and skills developed in preceding courses are extended and applied to design and selection of machine elements and machines. Attention is give to functional requirements, methods of manufacture, choice of materials, and economic factors. Changed to: Study of stress and fatigue analysis as applied to machine elements.

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MECH 316	Machine Design II	<p>Used to be: A study of power transmission systems components, their selection, and application to power transmission systems. Special consideration is given to the dynamic characteristics of the systems.</p> <p>Changed to: Application of stress and fatigue analysis in the design and selection of machine elements.</p>
MECH 318	Fluid Mechanics I	<p>Used to be: Covers fluid properties, laws of fluid statics and fluid dynamics, measurement of flow, viscous flow, laminar, and turbulent flow, flow in ducts, forces due to fluid motion, and fluid machinery.</p> <p>Changed to: Covers fluid properties, fluid statics, conservation laws of pipe flow, drag, lift, fluid dynamics, measurement of flow, viscous flow, laminar, and turbulent flow, and forces due to fluid motion.</p>
MECH 417	Fluid Mechanics II	<p>Used to be: Application of thermodynamics and fluid mechanics to the analysis of flow of both ideal and real gasses in pipes, nozzles, diffusers, compressors, and turbines. The course also emphasizes the use of appropriate instrumentation. Computational fluid dynamics is introduced.</p> <p>Changed to: Fluid Kinematics, differential analysis, similitude and modeling, and compressible flow. Computational fluid dynamics is introduced.</p>
MECH 436	Applied Control Systems	<p>Used to be: An introduction to control systems. Both classic control theory and modern digital process control are considered. Topics include block diagrams, mathematical models, transfer functions, Laplace transforms, frequency response along with control components and digital controller.</p> <p>Changed to: A study of modern industrial control systems, both discrete and analog. Topics include block diagrams, relay ladder logic and applications of programmable logic controllers.</p>
MET 315	Machine Design I	<p>Used to be: Knowledge and skills developed in preceding courses are extended and applied to design and selection of machine elements and machines. Attention is given to functional requirements, methods of manufacture, choice of materials, and economic factors.</p> <p>Changed to: Study of stress and fatigue analysis as applied to machine elements.</p>
MET 316	Machine Design II	<p>Used to be: A study of power transmission systems components, their selection, and application to power transmission systems. Special consideration is given to the dynamic characteristics of the systems.</p> <p>Changed to: Application of stress and fatigue analysis in the design of machine elements.</p>

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MFG 311	Industrial Controls	Used to be: Fundamentals of mechanical, pneumatic hydraulic, and electrical controls and instrumentation. A survey of electronic actuator, sensors, and feedback devices used in manufacturing machines and processes including temperature, pressure, and proximity sensors. Introduction to programmable logic control. Changed to: Fundamentals of control of manufacturing processes. Applications of relay logic, input and output devices, and programmable logic controllers (PLC). Design of complete control circuits, selection of components, and cost estimation. PLC programming for discrete event control and for analog applications.
MFG 428	Manufacturing Engineering Certificaiton	Used to be: Review for Manufacturing Engineering Certification exam. Includes review of mathematics, engineering drawing, physics, chemistry, mettallurgy, non-metallic and metallic materials, electronic technology, engineering economics, manufacturing processes, statics, strength of materials, and machine design. Changed to: Students are required to take the Certified Manufacturing Engineer Exam or Certified Manufacturing Technical Exam offered by the Society of Manufacturing Engineers.
MIS 489	Cases In Management Information Systems	Used to be: Capstone course analyzing and solving complex problems in integrated business and/or business teleprocessing systems. Senior project investigation, selection and planning. Changed to: Capstone course analyzing and solving complex problems in integrated business systems. Case studies of contemporary companies are reviewed, analyzed, documented, and presented. Student teams learn the dynamics of global companyoperations through computer based simulations.
Course Lecture/Lab Credit Hour Change		
DH 100	Introduction to Dental Hygiene I	Used to be 1 lecture hour and 0 lab hours Changed to 0 lecture hours and 3 lab hours

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DH 222	Dental Hygiene Clinical Practice & Seminar II	Used to be 1 lecture hour, 6 lab hours, 3 credits Changed to 2 lecture hours, 6 lab hours, 4 credits
DH 323	Dental Hygiene Clinical Practice & Seminar VI	Used to be 1 lecture hour, 12 lab hours, 5 credits Changed to 2 lecture hours, 12 lab hours, 6 credits
DH 422	Dental Hygiene Clinical Practice & Seminar VIII	Used to be 2 lecture hours, 12 lab hours, 6 credits Changed to 1 lecture hour, 12 lab hours, 5 credits
DH 423	Dental Hygiene Clinical Practice & Seminar IX	Used to be 2 lecture hours, 12 lab hours, 6 credits Changed to 1 lecture hour, 12 lab hours, 5 credits
MECH 436	Applied Control Systems	Used to be 3 lecture hours, 0 lab hours, 3 credits Changed to 2 lecture hours, 3 lab hours, 3 credits.
MFG 314	Geometric Dimensioning and Tolerancing	Used to be 2 lecture hours, 0 lab hours, 2 credits Changed to: 2 lecture hours, 3 lab hours, 3 credits
New Courses		
CST 315	Embedded Sensor Interfacing and IO	3 lecture hours, 3 lab hours, 4 credits
CST 337	Embedded System Architecture	3 lecture hours, 3 lab hours, 4 credits
CST 345	Hardware/Software Co-Design	3 lecture hours, 3 lab hours, 4 credits
CST 347	Real-Time Embedded Operating Systems	3 lecture hours, 3 lab hours, 4 credits
CST 417	Embedded Networking	3 lecture hours, 3 lab hours, 4 credits
CST 455	System on a Chip Design	3 lecture hours, 3 lab hours, 4 credits
CST 456	Embedded System Testing	3 lecture hours, 3 lab hours, 4 credits
CST 466	Embedded System Security	3 lecture hours, 0 lab hours, 3 credits
DH 452	Instructional Practicum	0 lecture hours, 9 lab hours, 3 credits
DH 461	Restorative Dentistry I	1 lecture hour, 3 lab hours, 2 credits
DH 462	Restorative Dentistry II	0 lecture hours, 3 lab hours, 1 credit
ENG 281	Contemporary World Literature	3 lecture hours, 0 lab hours, 3 credits
ENGR 266	Computer Programming for Engineers	2 lecture hours, 3 lab hours, 3 credits
ENGR 485	Fundamentals of Engineering Exam	1 lecture hour, 0 lab hours, 1 credit
MATH 255	Vector Calculus II	4 lecture hours, 0 lab hours, 4 credits
MATH 453	Numerical Methods III	4 lecture hours, 0 lab hours, 4 credits
MECH 312	Dynamics II	3 lecture hours, 0 lab hours, 3 credits
MET 111	Orientation I	1 lecture hours, 3 lab hours, 2 credits
MET 112	Orientation II	1 lecture hours, 3 lab hours, 2 credits
MET 231	CAD for Mechanical Design I	1 lecture hour, 3 lab hours, 2 credits
MET 242	CAD for Mechanical Design II	1 lecture hour, 3 lab hours, 2 credits
MFG 425	Plastic Manufacturing Processes	2 lecture hours, 3 lab hours, 3 credits
MFG 454	Thermal Systems for Manufacturing	3 lecture hours, 0 lab hours, 3 credits
PSY 431	Family Therapy	3 lecture hours, 0 lab hours, 3 credits
PSY 432	Group Therapy	3 lecture hours, 3 lab hours, 4 credits
Course Deleted from Curriculum/Catalog		
ACC 405		
HUM 206	Jazz History and Appreciation	Delete from catalog
HUM 461	Senior Seminar in Technology, Society & Values	Delete from catalog
HUM 462	Senior Thesis in Technology, Society & Values	Delete from catalog
IMGT 455	Cost Engineering & Estimating	Delete from Management - BSBM Curriculum
MATH 311	Introduction to Real Analysis	Delete from Applied Mathematics
MECH 100	ME Orientation	Delete from catalog

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MECH 105	Fundamentals of Engineering Drafting	Delete from catalog
MECH 275	CAD for Mechanical Design	Delete from catalog
MET 100	MET Orientation	Delete from catalog/curriculum
MET 105	Fundamentals of Engineering Drafting	Delete from catalog
MET 275	CAD for Mechanical Design	Delete from catalog
MET 427	Experiments in Thermodynamics	Delete from Curriculum-Mechanical Eng. Tech
MIS 115	Visual BASIC Programming	Delete from Civil Eng & Geomatics Curriculum
Course Number/Corequisite/Prerequisite/Term Offered Change		
BIO 232	Human Anatomy & Physiology II	Used to be Prerequisite: BIO 231 Changed to: BIO 231 with grade "C" or better
BIO 233	Human Anatomy & Physiology III	Used to be Prerequisite: BIO 232 Changed to: BIO 232 with grade "C" or better
BUS 314	Entrepreneurship	Used to be Prerequisite: BUS 215, or BUS 304, or BUS 317 Changed to: BUS 215 or BUS 304 or BUS 317; and BUS 321 or ACC 201
COM 345	Organizational Communication I	All prerequisites removed
COM 426	Mediation Practicum	Used to be Coreq: COM 425 Changed to Coreq or prereq: COM 425
CHE 210	Clinical Pharmacology	AS Dental Hygiene used to be Freshman-Spring Changed to Sophomore-Fall
CST 130	Computer Organization	Mgmt (IT) Used to be: Freshman-Spring Changed to: Freshman-Winter
ECO 201N	Principles of Microeconomics	Used to be: ECO 202, Principles of Microeconomics
ECO 202N	Principles of Macroeconomics	Used to be: ECO 201, Principles of Macroeconomics
EET 101	Introduction to Circuit Analysis	Used to be: Junior- Fall Changed to: Freshman- Winter
EET 102	Introduction to Circuit Analysis Lab	Used to be: Junior- Fall Changed to: Freshman- Winter
Elective	Social Science	SWARE Eng. Used to be: Freshman-Spring Changed to: Sophomore-Fall
Elective	Technical Elective	IT Used to be: Sophomore-Spring Change to: Senior-Fall
GME 175	Computations and Platting	CIV & GEO Used to be: Freshman-Spring Changed to: Freshman-Winter
HSC 205	Nutrition	AS Dental Hygiene used to be Sophomore-Fall Changed to Freshman-Spring
IMGT 311	Principles of Operations Management	BSBM Used to be: Senior-Winter Changed to: Senior-Fall
IMGT 457	Cases in Strategic Management	BSBM Now Senior-Fall
MATH 221	Introduction to Comutational Software	Used to be MATH 241
MATH 452	Numerical Methods II	Used to be Prerequisite: MATH 451 Changed to: Prerequisite: MATH 451 and MATH 321
MATH 453	Numerical Methods III	Used to be Prerequisite: MATH 452. Changed to: Prerequisite MATH 452 and MATH 421

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MECH 315	Machine Design I	MECH 160, PHY 221 Changed to: Prerequisite: ENGR 213
MECH 318	Fluid Mechanics I	Used to be Prerequisite: ENGR 211, MATH 321, PHY 221; Pre-or-Corequisite: MECH 363 Changed to: ENGR 211, PHY 221; Pre-or-corequisite: MECH 363
MECH 351	Finite Element Analysis	Used to be Prerequisite: MECH 375, MECH 315 Changed to: MET 375, MECH 315
MECH 360	Materials II	Used to be Prerequisite: MECH 160 AND CHE 221 Changed to: MET 160 and CHE 201 or CHE 221
MECH 363	Instrumentation	Used to be: PHY 222; Pre-or-corequisite: ENGR 236. Changed to: MATH 361, PHY 222; Pre-or-Corequisite: ENGR 236
MECH 417	Fluid Mechanics II	Used to be Prerequisite: MECH 313, MECH 318, MECH 363 Changed to: ENGR 355, MECH 318, MATH 321
MECH 436	Applied Control Systems	Used to be Prerequisite: ENGR 212, ENGR 236, ENGR 355, MECH 318, MECH 363. Changed to: MECH 326, ENGR 212
MECH 475	Parametric Modeling	Used to be Prerequisite: MECH 275 Changed to: MET 375
MECH 480	Vibrations	Used to be Prerequisite: ENGR 212, MECH 315, MATH 321 Changed to: ENGR 212, MECH 315, MECH 363, MATH 321
MECH 490	Senior Project I	Used to be Prerequisite: Instructor Consent Changed to: Instructor consent; Corequisite: WRI 321
MECH 491	Senior Project II	Used to be Prerequisite: MECH 490, previous quarter from same instructor, or adviser and instructor consent. Changed to: MECH 490, previous quarter from same instructor, or adviser and instructor consent; Corequisite: WRI 322
MECH 492	Senior Projects III	Used to be Prerequisite: MECH 491, previous quarter from same instructor, or adviser and instructor consent. Changed to: MECH 491, previous quarter from same instructor, or adviser and instructor consent; Corequisite: WRI 323
MET 108	Geometric Dimensioning and Tolerancing	Used to be Prerequisite: MET 105 Changed to: MET 112
MET 315	Machine Design I	Used to be Prerequisite: ENGR 213, MET 105, MET 160; PHY 201 or PHY 221. Changed to: ENGR 213
MET 326	Electrical Power Systems	Used to be Prerequisite: ENGR 236, MET 363. Changed to: ENGR 236
MET 363	Instrumentation	Used to be Prerequisite: PHY 202 or PHY 222. Pre-or-Corequisite: ENGR 236. Changed to: PHY 202 or PHY 222. Pre-or-Corequisites: ENGR 236, MATH 361
MET 375	Solid Modeling	Used to be Prerequisite: MET 275 Changed to: MET 232

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MET 415	Design Project	Used to be: MET 218, MET 275, MET 315. Pre-or-Corequisite: MET 316. Changed to: MET 218, MET 232. Pre-or-Corequisite: MET 316
MET 427	Experiments in Thermodynamics	Used to be Prerequisite: ME 313, MET 363 Changed to: MET 363. Pre-or-Corequisite: MET 313.
MET 475	Parametric Modeling	Used to be Prerequisite: MET 275 Changed to: MET 232
MET 490	Senior Projects I	Added Corequisite: WRI 321
MET 491	Senior Projects II	Added Corequisite: WRI 322
MET 492	Senior Projects III	Added Corequisite: WRI 323
MFG 120	Manufacturing Processes I	Used to be Prerequisite: MATH 100, MFG 101 OR MET 100. Changed to: MATH 100, MET 111
MFG 220	Manufacturing Processes II	Used to be Prerequisite: MET 105, MET 160, MFG 120. Changed to: MET 231, MET 160, MFG 120
MFG 245	Electronics Manufacturing	Used to be Prerequisite: CHE 101, MFG 101. Changed to: CHE 101, MET 112
MFG 314	Geometric Dimensioning and Tolerancing	Used to be Prerequisite: MATH 112, MET 105 Changed to: MATH 112, MET 231
MFG 317	Machine Element Design	Used to be Prerequisite: ENGR 213 or ENGT 231; MET 105; or Instructor consent. Changed to: ENGR 213 or ENGT 231; MET 231; or Instructor consent.
MFG 331	Industrial Controls	Used to be Prerequisites: ENGR 236, MET 326 Changed to: MET 326
MFG 341	Numerical Control Programming	Used to be Prerequisite: MATH 112, MFG 120; MET 275 or MFG 275. Changed to: MATH 112, MFG 120; MET 231
MFG 343	Manufacturing Tool Design	Used to be Prerequisite: MET 275, MFG 314, MFG 317, or instructor consent. Changed to: MET 231, MFG 314, MET 315, or instructor consent.
MFG 344	Design of Manufacturing Tooling	Used to be Prerequisite: MET 275 or MFG 275; MFG 343. Changed to: MET 231; MFG 343
MFG 428	Manufacturing Engineering Certification	Used to be Prerequisite: Consent of department member. Changed to: Graduating senior.
MFG 444	Assembly and Testing Methods	Used to be Prerequisite: MFG 316, MFG 333; or ACC 333 or IMGT 310. Changed to: MFG 314, MFG 333; or ACC 333 or IMGT 310
MIS 206	Intro to Management Information Systems	Mgmt (IT) Used to be: Freshman-Winter Changed to: Freshman-Spring
PSY 360	Organizational Psychology	Used to be Prereq: PSY 347 Changed to Prereq: PSY 201
SPE 111	Fundamentals of Speech	CIV & GEO Used to be: Freshman-Winter Change to: Freshman-Spring
SPE 321	Small Group Communications	AP MATH Used to be: Sophomore-Fall Changed to: Junior-Fall
WRI 122	English Composition	SWARE Eng. Used to be: Freshman-Winter Changed to: Freshman-Spring

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WRI 227	Technical Report Writing	AP MATH Used to be: Sophomore-Winter Changed to: Junior-Winter
WRI 327	Advanced Technical Writing	AP MATH Used to be: Sophomore- Spring Changed to: Senior-Spring
	Elective	AP MATH Used to be: Senior-Fall Changed to: Sophomore- Fall
	Elective	AP MATH Used to be: Junior-Winter Changed to: Sophomore- Winter
	Elective	AP MATH Used to be: Senior-Spring Changed to: Sophomore- Spring
	Social Science Elective	SWE Used to be: Freshman-Winter Changed to: Freshman- Spring
Add to Curriculum		
ACC 405	Accounting Information Systems	IT & MIS Technical Elective
BUS 345	Fraud Examination	Management
COM 320	Advanced Intercultural Communication	Management
EET 101	Introduction to Circuit Analysis	Software Engineering Technology
EET 102	Introduction to Circuit Analysis Lab	Software Engineering Technology
IMGT 457	Cases in Strategic Management	Management - BSMB
HIST 392	Modern Asia	Humanities & Social Sciences
MATH 221	Introduction to Computational Software	Civil Engineering & Geomatics
MATH 243	Introductory Statistics	Communication Studies
Miscellaneous		
	Minor in Technology, Society & Values	Delete Minor from the catalog
	B.S. in Nuclear Medicine Technology	Used to be: B.S. in Radiologic Science: Option in Nuclear Medicine Technology
	B.S. in Diagnostic Medical Sonography	Used to be: B.S. in Ultrasound: Option in Diagnostic Medical Sonography
	B.S. in Vascular Technology	Used to be: B.S. in Ultrasound: Option in Vascular Technology
ACC 405	Accounting Information Systems	IT Major-Used to be: standard curriculum Change to: Technical Elective