Academic Notes

February 13, 2012 **AN 2011-2012**

ACADEMIC NOTES PUBLICATION SCHEDULE
FOR SPRING 2012

Below is the publication schedule for the electronic copy of *Academic Notes* through May 7, 2012. All submissions for inclusion in Academic Notes are due in the Office of Academic Affairs no later than 11:00 a.m. on the Deadline for Items date shown below. Submissions must be in hard copy along with an email, zip drive, or CD with the same information. The electronic version must be formatted either in Word with pages with signatures scanned and inserted as a picture OR PDF saved as text and image. (Do NOT send PDF just saved as an image.) Information submitted to Academic Notes that is not accompanied by an electronic version or that is incomplete or unusable will be returned to the appropriate office. Academic Notes is available using Acrobat Reader at http://www.indstate.edu/academicaffairs/academic_notes.htm. During the summer months, Academic Notes is published every other week. If you have questions, please contact Academic Affairs, extension 3662.

ACADEMIC NOTES PUBLICATION SCHEDULE
FOR SPRING 2012

Deadline for Items	Issue Date
February 8	February 20
February 15	February 27
February 22	March 5
February 29	March 12
March 7	March 19
March 14	March 26
March 28	April 2
April 4	April 9
April 11	April 16
April 18	April 23
April 25	May 7

CURRICULUM

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UNDERGRADUATE PROPOSALS

COURSE REVISIONS

COLLEGE OF ARTS AND SCIENCES: Biology

BIO 102 - Principles of Biology II
3 credits
Link
(This course is part of the "Transfer Indiana" [TransferIN] initiative. For additional information, link to www.transferin.net/ctl.)

A continuation of 101, with emphasis on cell and organismic physiology and survey of plants.
Prerequisites: Successful completion of or concurrent enrollment in Chemistry 105 and 105L.
When Offered: Offered: spring.
Change prerequisites to:
BIO 102 - Principles of Biology II
3 credits
Link
(This course is part of the "Transfer Indiana" [TransferIN] initiative. For additional information, link to www.transferin.net/ctl.)

A continuation of 101, with emphasis on cell and organismic physiology and survey of plants.
Prerequisites: Successful completion of or concurrent enrollment in BIO 102L. Successful completion of or concurrent enrollment in Chemistry 105 and 105L.
A-F Grading
Effective term: Fall 2012

BIO 102L - Principles of Biology II Laboratory
1 credits

Link
(This course is part of the "Transfer Indiana" [TransferIN] initiative. For additional information, link to www.transferin.net/ctl.)

Laboratory exercises supporting concepts presented in Life Sciences 102.
When Offered: Offered: spring.

Change description and prerequisites to:

BIO 102L - Principles of Biology II Laboratory
1 credits
Link
(This course is part of the "Transfer Indiana" [TransferIN] initiative. For additional information, link to www.transferin.net/ctl.)

Laboratory exercises supporting concepts presented in BIO 102.
Prerequisites: Successful completion of or concurrent enrollment in BIO 102.
A-F Grading
Effective term: Fall 2012

BIO 241 - Human Physiology
2 credits
The skeletal, muscular, nervous, circulatory, respiratory, excretory, digestive, reproductive, and endocrine systems of human beings are studied in relation to their physiology.
Prerequisites: CHEM 100/100L or CHEM 104/104L.
When Offered: Offered: fall, spring, and summer II.

Change prerequisites to:

BIO 241 - Human Physiology
2 credits
The skeletal, muscular, nervous, circulatory, respiratory, excretory, digestive, reproductive, and endocrine systems of human beings are studied in relation to their physiology.
Prerequisites: Successful completion of or concurrent enrollment in BIO 241L; CHEM 100/100L or CHEM 104/104L.
A-F Grading
Effective term: Fall 2012

BIO 241L - Human Physiology Laboratory
2 credits
Laboratory exercises supporting concepts presented in 241.
When Offered: Offered: fall, spring, and summer II.

Change prerequisites to:

BIO 241L - Human Physiology Laboratory
2 credits
Laboratory exercises supporting concepts presented in BIO 241.
Prerequisite: Successful completion of or concurrent enrollment in BIO 241.
A-F Grading
Effective term: Fall 2012

BIO 274 - Introductory Microbiology
2 credits
Link
(This course is part of the "Transfer Indiana" [TransferIN] initiative. For additional information, link to www.transferin.net/ctl.)

The study of the structure and physiology of microorganisms and their relation to health, sanitation, agriculture, and industry. A general course for students majoring in areas other than life sciences.
Prerequisites: CHEM 100/100L or CHEM 104/104L.
Co-requisites: BIO 274L
When Offered: Offered: fall, spring, and summer I.

Change prerequisites to:

BIO 274 - Introductory Microbiology
2 credits
Link
(This course is part of the "Transfer Indiana" [TransferIN] initiative. For additional information, link to www.transferin.net/ctl.)

The study of the structure and physiology of microorganisms and their relation to health, sanitation, agriculture, and industry. A general course for students majoring in areas other than life sciences.
Prerequisites: Successful completion of or concurrent enrollment in BIO 274L; One pair from the following: CHEM 100/100L, CHEM 103/103L or CHEM 104/104L.
A-F Grading
Effective term: Fall 2012

BIO 374 - Cellular and Microbial Biology
3 credits
A comparative study of the structural, chemical, functional, and regulatory features of procaryotes and eucaryotes to develop and illustrate the fundamental principles of cellular and microbial biology.
Prerequisites: 102; Chemistry 351 and 351L.
When Offered: Offered: spring.

Change prerequisites to:

BIO 374 - Cellular and Microbial Biology
3 credits
A comparative study of the structural, chemical, functional, and regulatory features of procaryotes and eucaryotes to develop and illustrate the fundamental principles of cellular and microbial biology.
Prerequisites: BIO 102; Successful completion of or concurrent enrollment in BIO 374L; CHEM 351 and 351L.
A-F Grading
Effective term: Fall 2012

BIO 374L - Cellular and Microbial Biology Laboratory

1 credits
Exercises and experiences designed to demonstrate and apply the concepts of cellular and microbial biology.
When Offered: Spring.

Change prerequisites to:

BIO 374L - Cellular and Microbial Biology Laboratory
1 credit
Exercises and experiences designed to demonstrate and apply the concepts of cellular and microbial biology.
Prerequisite: Successful completion of or concurrent enrollment in BIO 374L.
A-F Grading
Effective term: Fall 2012

BIO 380 - Genetics
3 credits
The study of hereditary mechanisms, including classical, biochemical, and population concepts using appropriate examples.
Prerequisites: BIO 102 and concurrent enrollment in BIO 380L. MATH 099 or appropriate placement examination (MAPLE T.A.) score.
When Offered: Fall.

Change prerequisites to:

BIO 380 - Genetics
3 credits
The study of hereditary mechanisms, including classical, biochemical, and population concepts using appropriate examples.
Prerequisites: BIO 102 and successful completion of or concurrent enrollment in BIO 380L. Appropriate placement examination (MAPLE T.A.) score.
A-F Grading
Effective term: Fall 2012

BIO 428 - Mammology
2 credits
Lectures on mammals, including their classification, evolution, ecology, and methods of study.
Prerequisites: BIO 424 or consent of instructor.
Co-requisites: BIO 428L
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
When Offered: Offered: spring.

Change prerequisites to:

BIO 428 - Mammology
2 credits
Lectures on mammals, including their classification, evolution, ecology, and methods of study.
Prerequisites: Successful completion of or concurrent enrollment in BIO 428L; BIO 102 & 424, or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading
Effective term: Fall 2012

BIO 428L - Mammology Laboratory
1 credits
Laboratory and fieldwork to support the principles covered in 428.
Co-requisites: BIO 428
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
When Offered: Offered: spring
Change prerequisites to:
BIO 428L - Mammology Laboratory
1 credits
Laboratory and fieldwork to support the principles covered in 428.
Prerequisite: BIO 102; Successful completion of or concurrent enrollment in BIO 428.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2012

BIO 437 - Plant Physiology
3 credits
Unique aspects of plant metabolism, such as water relations, mineral nutrition, photosynthesis, nitrogen metabolism, growth, and morphogenesis.
Prerequisites: BIO 330.
Co-requisites: BIO 437L
When Offered: Fall
Change prerequisites to:
BIO 437 - Plant Physiology
3 credits
Unique aspects of plant metabolism, such as water relations, mineral nutrition, photosynthesis, nitrogen metabolism, growth, and morphogenesis.
Prerequisites: BIO 102; Successful completion of or concurrent enrollment in 437L.
A-F Grading
Effective term: Fall 2012

BIO 437L - Plant Physiology Laboratory
1 credits
An experimental approach to the topics listed under 437.
Co-requisites: BIO 437
When Offered: fall.
Change prerequisites to:
BIO 437L - Plant Physiology Laboratory
1 credits
An experimental approach to the topics listed under 437.
Prerequisites: BIO 102; Successful completion of or concurrent enrollment in BIO 437.

A-F Grading
Effective term: Fall 2012

SCOTT COLLEGE OF BUSINESS: Accounting, Finance, Insurance and Risk Management

ACCT 350 - Fraud Examination I
3 credits
The purpose of this course is to: educate the student about both the pervasiveness of the causes of fraud and white-collar crime in society; explore, in detail methods of fraud detection, investigation, and prevention; and increase the student's ability to detect material financial statement fraud.
Prerequisites: ACCT 315 or 301 or permission of department chairperson.
Change title to:
ACCT 350 - Fraud Examination
3 credits
The purpose of this course is to: educate the student about both the pervasiveness of the causes of fraud and white-collar crime in society; explore, in detail methods of fraud detection, investigation, and prevention; and increase the student's ability to detect material financial statement fraud.
Prerequisites: ACCT 315 or 301 or permission of department chairperson.
A-F Grading
Effective term: Fall 2012

ACCT 450 - Fraud Examination II
3 credits
This course is a continuation of 350 and increases the student's ability to better understand what occupational fraud is and how it is committed, prevented, and resolved. This course is concerned with examining the three main categories of occupational fraud: asset misappropriation, corruption, and the issuance of misleading financial statements. During the semester, the student will learn various prevention, detection, and investigation strategies used in fighting fraud.
Prerequisites: ACCT 350 or 499.
Change title to:
ACCT 450 - Occupational Fraud
3 credits
This course increases the student's ability to better understand what occupational fraud is and how it is committed, prevented, and resolved. This course is concerned with examining the three main categories of occupational fraud: asset misappropriation, corruption, and the issuance of misleading financial statements. During the semester, the student will learn various prevention, detection, and investigation strategies used in fighting fraud.
Prerequisites: ACCT 301 or 315.
A-F Grading
Effective term: Fall 2012

COURSE BANKING

COLLEGE OF TECHNOLOGY: Electronics and Computer Engineering Technology
ECT 280 - Introduction to Automation
Effective term: Fall 2012

PROGRAM REVISIONS

COLLEGE OF ARTS AND SCIENCES: Art

Art History Minor (27 credits)
CIP Code: 500701 Major Code: 0327

Brief Summary:

ARTP 170 is being removed from both Art Minors. The course is geared towards freshman majors, and is difficult to teach with a handful of upper class art minors.

Proposed Catalog Copy:

Art History Minor (24 credits)
CIP Code: 500701 Major Code: 0327

Required courses (15 credits):

ARTH 271 - Survey of Art History I 3 credits
ARTH 272 - Survey of Art History II 3 credits
ARTS 101 - Fundamentals of Drawing 3 credits
ARTS 102 - Fundamentals of Two-Dimensional Design and Color 3 credits
ARTS 104 - Fundamentals of Three-Dimensional Design and Color 3 credits

Electives (9 credits):

9 credits of electives in upper-level art history courses
Effective term: Fall 2012

COLLEGE OF ARTS AND SCIENCES: Art

Studio Art Minor (24 credits)
CIP Code: 500701 Major Code: 0321

Brief Summary:

ARTP 170 is being removed from both Art Minors. The course is geared towards freshman majors, and is difficult to teach with a handful of upper class art minors.

Proposed Catalog Copy:

Studio Art Minor (24 credits)
CIP Code: 500701 Major Code: 0321

Required courses (15 credits):

ARTH 271 - Survey of Art History I 3 credits
ARTH 272 - Survey of Art History II 3 credits
ARTS 101 - Fundamentals of Drawing 3 credits
ARTS 102 - Fundamentals of Two-Dimensional Design and Color 3 credits
ARTS 104 - Fundamentals of Three-Dimensional Design and Color 3 credits

Electives:

9 credits of electives in any studio art emphasis area(s).
Effective term: Fall 2012

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Health Sciences

Health Sciences Major (63-73 credits)
CIP Code: 511504 Major Code: A232

Brief Summary:

The Department of Applied Health Sciences will make changes to reflect recommendations and changes form the College of Education. CIMT 301 and 302 will be changed from 3 credit hours each to 2 credit hours each and EDUC 368 will now be required for all those graduation after July 1, 2013.

Student Learning:

New requirements from the State Board of Education now require that students have an additional reading instruction course. This change reflects that recommendation by adding EDUC 368. In addition, CIMT 301 and CIMT 302 are being reduced to 2 credit hours each. That change will not affect the student's ability to gain valuable subject matter teaching time and fieldwork experience.

Proposed Catalog Copy:

Health Sciences Major (65-74 credits)
CIP Code: 511504 Major Code: A232

The objectives of this degree program are to prepare health professionals to help maintain and

improve the health, well-being, and quality of life of people; to prepare students to become health teachers; and to prepare students to pursue graduate education in a variety of related fields.

Students completing the health sciences major must earn a minimum of a "C" grade in all required major courses (core, content, culminating experience, professional, and foundation courses).

Students completing the school health concentration must be thoroughly familiar with the requirements for admission to the Teacher Education Program and the teaching curriculum. Refer to the Bayh College of Education and the Department of Curriculum, Instruction and Media Technology in this catalog.

All students must maintain a 2.5 grade point average in both the major courses and in their overall grade point average to graduate.

Health Sciences Core Courses (15 credits):

- AHS 111 – Personal Health Science and Wellness 3 credits
- AHS 220 – Public Health Concepts 3 credits
- AHS 340 – Health Biostatistics 3 credits
- AHS 392 – Educational Methods for Health and Safety 3 credits
- AHS 480 – Senior Seminar 3 credits

School Health Education Concentration (57-59 credits):
Health, Safety, and Environmental Health Sciences Courses:

- AHS 211 – Emergency Medical Care and Advanced First Aid 2 credits
- AHS 211L – Advanced Emergency Medical Skill Proficiency Laboratory 1 credit
- AHS 201 – Fundamentals of Nutrition 3 credits
- AHS 313 – Comprehensive School Health Education 3 credits
- AHS 401 – Substance Abuse Education 3 credits
- AHS 410 – Mental Health and Stress Education 3 credits
- AHS 403 – Communicable and Chronic Diseases, and AIDS 3 credits
- AHS 406 – Human Sexuality Education 3 credits

Other Required Courses:

- CIMT 301 – Teaching I 2 credits
- CIMT 302 – Teaching II 2 credits
- CIMT 400 – Teaching III 3 credits
- CIMT 400L – Teaching III Practicum 1 credit
- CIMT 401 – Student Teaching 11 credits
- CIMT 402 – Teaching an Integrated Unit 1 credit
- EPSY 202 – Psychology of Childhood and Adolescence 3 credits
- EPSY 341 – Education in a Multicultural Society 3 credits
- SPED 226 – The Exceptional Learner in the Regular Classroom 3 credits
- EDUC 368 – Reading in the Content Areas 3 credits

Choose one of the following groups:

- ATTR 210 – Human Anatomy for Allied Health Professions 2 credits
- PE 220 – Human Physiology for Allied Health Professions 2 credits

Or:

- BIO 231 – Human Anatomy 2 credits
- BIO 231L – Human Anatomy Laboratory 1 credit
- BIO 241 – Human Physiology 2 credits
- BIO 241L – Human Physiology Laboratory 1 credit

Effective term: Fall 2012

COLLEGE OF TECHNOLOGY: Electronics and Computer Engineering Technology

Automation and Control Engineering Technology Major (82 credits)
CIP Code: 150405 Major Code: 08E933 BS

Brief Summary:

The ACET program is still using the curriculum developed at the start of the program. Experience gathered over several years of working with the program has shown opportunities to improve student learning by adjusting the course requirements. In addition, restructuring of the COT and discontinuation of some courses have made some curriculum revisions necessary offered.
Changes made to the curriculum are as follows:
1. Remove ECT 280 and replace with ECT 232
(Reason: Course materials presented in ECT 280 already have some overlap with with ECT 281 & 381; therefore the ECET department is eliminating the course.)
2. Remove MFG 372 and replace with ECT 437
(Reason: MFG 372, Plastics, is no longer offered. ECT437, Computer Systems Management introduces additional content value to the student appropriate to the major.)
3. Remove MET 407 and replace with MET 403 (Advanced CAD)
(Reason: MET 407 has a prerequisite course not included in the program, MET 302. Prerequisites for MET 403 are already included in the program MET 103 & 203)
4. Remove TGMT 131
(Reason: The Students already take ECT 170 as an orientation course, TGMT 131 is a redundant requirement.)

Student Learning:

The changes to the curriculum offered here will eliminate redundant presentation of subject matter while including additional foundational subject matter related to the major area of study.

Proposed Catalog Copy:

Automation and Control Engineering Technology Major (80 credits)

CIP Code: 150405 Major Code: 08E933 BS

Required Courses:

Electronics and Computer Technology (27 credits):

- ECT 165 - D.C. Circuits and Design 3 credits
- ECT 167 - A.C. Circuits and Design 3 credits
- ECT 170 - Introduction to Information Technology 3 credits
- ECT 231 - Digital Computer Logic 3 credits
- ECT 232 - Digital Computer Circuits 3 credits
- ECT 281 - Introduction to Robotics and Automation 3 credits
- ECT 381 - Advanced Robotics and Automation 3 credits
- ECT 444 - Programmable Logic Controllers and Control Systems 3 credits
- ECT 480 - Applications of Robotic and Automation Systems 3 credits

Manufacturing Technology (12 credits):

- MFG 225 - Introduction to Materials, Processes, and Testing 3 credits
- MFG 370 - Fundamentals of Manufacturing Processes 3 credits
- MFG 371 - Manufacturing Processes and Materials 3 credits
- MFG 376 - Computer Numerical Control Systems 3 credits

Mathematics/Computer Science and Physical Science requirements (14 credits):

- Courses in chemistry, geology, biology, or physics 8 credits
- CS 256 - Principles of Structured Design 3 credits
- or higher level structured language.
- MATH 301 - Fundamentals and Applications of Calculus 3 credits

Mechanical Engineering Technology (15 credits):

- MET 103 - Introduction to Technical Graphics with CAD 3 credits
- MET 203 - Introduction to Solid Modeling 3 credits
- MET 299 - CAD Fundamentals 3 credits
- MET 329 - Fluid Power Technology 3 credits
- MET 403 - Advanced Computer Aided Design (CAD) Concepts 3 credits

Technology Management (9 credits):

- ECT 437 - Industrial Computer Systems Management 3 credits
- TMGT 478 - Industrial Organization and Functions 3 credits
- TMGT 492 - Industrial Supervision 3 credits

Directed Foundational Studies (3 credits):

- MATH 115 - College Algebra 3 credits

Effective term: Fall 2012

SCOTT COLLEGE OF BUSINESS: Marketing and Operations

Insurance Sales Certificate (15 credits)
CIP Code: 521401 Major Code: 6433

Brief Summary:

This proposal is to modify the Certificate in Insurance Sales by opening this program up to all ISU undergraduate students with a small adjustment in the curriculum.

Student Learning:

We have carefully reviewed our student outcomes assessment and determined that we need to make this adjustment to our current offering. These changes will provide an opportunity for many more students to get involved and participate in the student learning that we facilitate.

Proposed Catalog Copy:

Insurance Sales Certificate (15 credits total)
CIP Code: 521401 Major Code: 6433

This program is available to all undergraduate students at Indiana State University. The Insurance Sales Certificate provides students with an opportunity to develop and document selling skills while also acquiring some product knowledge within the insurance sector.

Required Courses (12 credits):

Choose one (either BUS 361 or MKTG 301) from the following:

- BUS 361 Principles of Marketing 3 credits

or

- MKTG 301 Introduction to Marketing 3 credits

- MKTG 344 Professional Selling 3 credits
- INS 340 Introduction to Risk and Insurance 3 credits

Choose one (either MKTG 444 or MKTG 445) from the following:

- MKTG 444 Salesforce Management 3 credits

or

- MKTG 445 Business Negotiations 3 credits

Elective Courses (Choose 3 credits):
- Any other INS course 3 credits

Effective term: Fall 2012

SCOTT COLLEGE OF BUSINESS: Marketing and Operations

Medical Sales Certificate (15 credits)
CIP Code: 521401 Major Code: 6232

Brief Summary:

This proposal is to modify the Certificate in Medical Sales by opening up this program up to all ISU undergraduate students, making a small adjustment in the required courses, and adding several new courses to the list of electives.

Student Learning:

We have carefully reviewed our student outcomes assessment and determined that we need to make this adjustment to our current offering.These changes will provide an opportunity for many more students to get involved and participate in the student learning that we facilitate.

Proposed Catalog Copy:

Medical Sales Certificate (15 credits total)
CIP Code: 521401 Major Code: 6232

This program is available to all undergraduate students at Indiana State University. The Medical Sales Certificate provides students with an opportunity to develop and document selling skills while also acquiring some product knowledge within the medical, life sciences, or health care sectors.

Required Courses (9 credits):

Choose one (either BUS 361 or MKTG 301) from the following:
- BUS 361 Principles of Marketing 3 credits

or
- MKTG 301 Introduction to Marketing 3 credits

- MKTG 344 Professional Selling 3 credits

Chose one (either MKTG 444 or MKTG 445) from the following:

- MKTG 444 Salesforce Management 3 credits

or

- MKTG 445 Business Negotiations 3 credits

Elective Courses (Select 6 credits):

- AHS 111 Personal Health Science and Wellness 3 credits
- AHS 211 Emergency Medical Care and Advanced First Aid 2 credits
- AHS 211L Emergency Medical Care and Advanced First Aid Laboratory 1 credit
- AHS 220 Public Health Concepts 3 credits
- AHS 360 Epidemiology 3 credits
- AHS 444 Public Health Administration 3 credits
- ATTR 110 Introduction to Health Professions 3 credits
- ATTR 210 Human Anatomy for Allied Health Professions 2 credits
- ATTR 210L Human Anatomy for Allied Health Professions Laboratory 1 credit
- ATTR 225 Medical Terminology for Allied Health Professions 3 credits
- ATTR 413 Biomedical Ethics 3 credits
- BIO 112 Human Aspects of Biology 3 credits
- BIO 112L Exploration of Biological Phenomena 1 credit
- BIO 231 Human Anatomy 2 credits
- BIO 231L Human Anatomy Laboratory 1 credit
- BIO 241 Human Physiology 2 credits
- BIO 241L Human Physiology Laboratory 1 credit
- ECON 302 Economics of Health and Medical Care 3 credits
- ENVI 442 Medical Anthropology 3 credits
- NURS 104 Introduction to Professional Nursing 2 credits
- PHIL 302 Medical Ethics 3 credits
- PSY240 Psychology of Health Behavior 3 credits
- PSY 458 Psychopharmacology 3 credits
- SOC 424 Sociology of Mental Health and Illness 3 credits
- SOC 471 Medical Sociology 3 credits
- Other courses that directly involve the study of medical, life sciences, or health care issues that are approved by the Director of the Undergraduate Student Services Office in the Scott College of Business

Effective term: Fall 2012

Marketing Major (72 credits)
CIP Code: 51401 Major Code: 7230

Brief Summary:

This proposal adds some new courses to the list of electives for the Sales Management Track. It also updates the description of marketing and simplifies some of the wording used to identify the

curricular requirements. These small modification will enable us to focus our efforts on strategic priorities and in areas in which ISU is already strong.

Student Learning:

We have carefully reviewed our student outcomes assessment, the requirements of our accreditors, and the current ISU course catalog to identify opportunities for improvement that are shown in the proposed adjustments to our Marketing Major. In particular, the addition of an ethical elective as well as some new technology offerings should help us address areas where there is an opportunity for improvement in our curricular offerings. In addition, listing the courses which are are acceptable as electives rather than saying "any other 300-400 level MKTG course, will facilitate usage of the DARS system by our students and contribute to student success.

Proposed Catalog Copy:

Marketing Major (72 credits)
CIP Code: 51401 Major Code: 7230

Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. Students who complete the marketing major will become qualified for a diverse range of careers including business to business sales, retail management, marketing research, integrated marketing communications, and product management. The Marketing Program prepares students for careers in business-to-business as well as consumer marketing working for either business corporations or nonprofit organizations using digital marketing or the more traditional forms of customer contact.

Marketing Major (A total of 72 credits are required)

Required Courses for all Four-Year Professional Programs (45 credits):

Business:

- BUS 100 Introduction to Contemporary Business 3 credits
- BUS 180 Business Information Tools 3 credits
- BUS 201 Principles of Accounting I 3 credits
- BUS 202 Principles of Accounting II 3 credits
- BUS 205 Business Statistics I 3 credits
- BUS 263 Legal Environment and Business 3 credits
- BUS 305 Business Statistics II 3 credits
- BUS 311 Business Finance 3 credits
- BUS 321 Introduction to Management Information Systems 3 credits
- BUS 351 Introduction to Operations Management 3 credits
- BUS 361 Principles of Marketing 3 credits
- BUS 371 Management and Organizational Behavior 3 credits

- BUS 401 Senior Business Experience 3 credits

Economics:

- ECON 200 Principles of Macroeconomics 3 credits
- ECON 201 Principles of Microeconomics 3 credits

Marketing Major Courses (27 Credits)

Required Core Courses for All Marketing Majors Regardless of Track (9 credits):

- MKTG 332 Buyer Behavior 3 credits
- MKTG 338 Marketing Research 3 credits
- MKTG 448 Marketing Management 3 credits

Choose Either the Marketing Management or the Sales Management Track:

Marketing Management Track:

Required Courses for Marketing Management Track (9 credits):

- MKTG 333 Product and Pricing Strategy 3 credits
- MKTG 334 Promotional Strategy 3 credits
- MKTG 353 Marketing Channel Structure and Strategy 3 credits

Elective Courses for Marketing Management Track

Working closely with an academic advisor, students pursuing the Marketing Management Track of the Marketing Major will choose 9 credits from the following list of MKTG courses):

- MKTG 310 Marketing for Non-Profit and Service Organizations 3 credits
- MKTG 312 Motorsports Marketing 3 credits
- MKTG 344 Professional Selling 3 credits
- MKTG 347 Principles of Retailing 3 credits
- MKTG 414 International Marketing 3 credits
- MKTG 439 Marketing Internship 3 credits
- MKTG 443 Business to Business Marketing 3 credits
- MKTG 444 Salesforce Management 3 credits
- MKTG 445 Business Negotiations 3 credits
- MKTG 449 Individual Study in Marketing 1-3 credits
- MKTG 475 Seminar in Current Marketing Topics 3 credits

Sales Management Track:

Required Courses for Sales Management Track (12 credits):

- MKTG 344 Professional Selling 3 credits
- MKTG 443 Business to Business Marketing 3 credits
- MKTG 444 Salesforce Management 3 credits
- MKTG 445 Business Negotiations 3 credits

Elective Courses for Sales Management Track

Working closely with an academic advisor, students pursuing the Sales Management Track of the Marketing Major will choose 6 credits from the following list of courses:

- COMM 312 Introduction to Persuasion Theory 3 credits
- MGT 370 Business and Society 3 credits
- MKTG 310 Marketing for Non-Profit and Service Organizations 3 credits
- MKTG 312 Motorsports Marketing 3 credits
- MKTG 333 Product and Pricing Strategy 3 credits
- MKTG 334 Promotional Strategy 3 credits
- MKTG 347 Principles of Retailing 3 credits
- MKTG 353 Marketing Channel Structure and Strategy 3 credits
- MKTG 414 International Marketing 3 credits
- MKTG 439 Marketing Internship 3 credits
- MKTG 449 Individual Study in Marketing 1-3 credits
- MKTG 475 Seminar in Current Marketing Topics 3 credits
- OSCM 300 Fundamentals of Supply Chain Management 3 credits
- OSCM 455 Global Sourcing and Procurement 3 credits

- OMA 475 Enterprise Resource Planning Systems 3 credits

or

- OSCM 475 Enterprise Resource Planning Systems 3 credits

- OMA 490 Supply Chain Management 3 credits [Please note prerequisites]

or

- OSCM 490 Global Supply Chain Management 3 credits

Effective term: Fall 2012

Sales and Negotiations Minor (18 credits)
CIP Code: 521401 Major Code: 7229

Brief Summary:

This proposal is to add three courses to the list of electives for the Minor in Sales and Negotiations. These additional courses help overcome scheduling challenges, enable study in important areas relating to sales, and generally enhance the learning experience.

Student Learning:

We have carefully reviewed our student outcomes assessment and determined that we need to make this adjustment to our current offering.In particular, the addition of an ethical elective as well as a new technology offering should help us address areas where our student outcomes assessment shows that we have opportunities for improvement.

Proposed Catalog Copy:

Sales and Negotiations Minor (18 credits total)*

CIP Code: 521401 Major Code: 7229

The Sales and Negotiations Minor provides an opportunity for students to develop and document sales and negotiations skills. These are valuable workplace skills that can be utilized by students from a variety of majors and in a number of different work environments.

*The Sales and Negotiations Minor is not available to students who select the Sales Management Track within the Marketing Major. For all other students, completion of the Sales and Negotiations Minor requires at least 9 credits beyond the requirements for any other major, minor, or certificate.

Required Courses (15 credits):

Choose one (either BUS 361 or MKTG 301) from the following:

- BUS 361 Principles of Marketing 3 credits

or

- MKTG 301 Introduction to Marketing 3 credits

- MKTG 344 Professional Selling 3 credits
- MKTG 443 Business to Business Marketing 3 credits
- MKTG 444 Salesforce Management 3 credits
- MKTG 445 Business Negotiations 3 credits

Elective Courses (Choose 3 credits):

- COMM 312 Introduction to Persuasion Theory 3 credits
- MGT 370 Business and Society 3 credits
- MKTG 310 Marketing for Non-Profit and Service Organizations 3 credits
- MKTG 312 Motorsports Marketing 3 credits
- MKTG 414 International Marketing 3 credits
- MKTG 333 Product and Pricing Strategy 3 credits
- MKTG 334 Promotional Strategy 3 credits
- MKTG 347 Principles of Retailing 3 credits
- MKTG 353 Marketing Channel Structure and Strategy 3 credits
- MKTG 439 Marketing Internship 3 credits
- MKTG 449 Individual Study in Marketing 1-3 credits
- MKTG 475 Seminar in Current Marketing Topics 3 credits
- OSCM 300 Fundamentals of Supply Chain Management 3 credits
- OSCM 455 Global Sourcing and Procurement 3 credits
- OSCM 475 Enterprise Resource Planning Systems 3 credits
- OMA 490 Supply Chain Management 3 credits [Please note prerequisites]

or

- OSCM 490 Global Supply Chain Management 3 credits

Effective term: Fall 2012

PROGRAM ELIMINATIONS

COLLEGE OF ARTS AND SCIENCES: Interdisciplinary Studies

Latin American-Latino Studies Minor (21 credits)
CIP Code: 240101 Major Code: 2527

Brief Summary:

Interdisciplinary Programs wishes to eliminate this minor.
Effective term: Fall 2012

GRADUATE PROPOSALS

NEW COURSES

COLLEGE OF TECHNOLOGY: Electronics and Computer Engineering Technology

ECT 633 - Information Security Management
3 credits
Prepares students for a role as a network security administrator or analyst; and gives the student experience in developing a production security system. Includes an in-depth examination of topics in the management of information technology security including access control systems, system recovery planning, legal issues, ethics, physical site security, and security system architecture using current standards and models.
A-F Grading
Effective term: Fall 2012

COURSE REVISIONS

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Health Sciences

AHS 528 -Experimental Food Science
3 credits
Experimental approach to the study of chemical and physical properties of foods.
Prerequisites: 226, CHEM 103, 103L and 104, 104L or consent of instructor.
Note: Includes laboratory.

Change prerequisites to:

AHS 528 -Experimental Food Science
3 credits
Experimental approach to the study of chemical and physical properties of foods.
Prerequisites: AHS 226, CHEM 103, 103L and 104, 104L or consent of instructor.
Note: Includes laboratory.
A-F Grading
Effective term: Fall 2012

COLLEGE OF TECHNOLOGY: Electronics and Computer Engineering Technology

ECT 679 - Problems in Electronics and Computer Technology
2-3 credits
Content determined to large extent by the interest and needs of each individual enrolled for the course.

Change credit hours to:

ECT 679 - Problems in Electronics and Computer Technology
3 credits
Content determined to large extent by the interest and needs of each individual enrolled for the course.
A-F Grading
Effective term: Fall 2012

PROGRAM REVISIONS

COLLEGE OF TECHNOLOGY: Electronics and Computer Engineering Technology

Electronics and Computer Technology M.S. (32 credits)
CIP Code: 150303 Major Code: 06 E960 MS

Brief Summary:

The graduate faculty of the MS in Electronics & Computer Technology (MS-ECT) program have determined a need to update the program to make our graduates more marketable and to incorporate an information technology component to the program. These revisions are based on input from discussions with graduates of the current program and from meeting with our industrial advisory board.
The intent is to create concentrations within the degree to allow students to better show that their program of study was more targeted to an area of technical specification, rather than a more general area of technology as is now the case. Comments from industry and graduating students indicate that this would better position graduates to meet the expectations of employers seeking to hire graduates with a MS degree, or to advance to a higher level within their current situation. The program revision, with one exception, uses existing courses and would require no extra resources to implement.
One change is a 1 credit hour increase in the program from 32 to 33. Previously, ECT 679 could be offered by the Department as either a 2 or a 3 credit hour elective course. In the new curriculum it will be offered only as a 3 credit hour Core Course.

Student Learning:

Interviews with graduating students and discussions with the Department's industrial advisory committee have shown that the current job market is focused more towards graduates who have more focused skills in the area of electronics and computer technology. The existing program has always shown a specialization in automation and control systems, but this was not expressly stated in the program description. By stating the concentration in Automation and Controls the graduate's skills will be more prominently stated, increasing their marketability in the field.

The creation of concentrations will allow the addition of the information technology related courses to gathered into a separate program of study. This will make the MS-ECT available to a new market of IT professionals who might otherwise be put off by requirements of the engineering technology courses listed in the curriculum.

Proposed Catalog Copy:

Electronics and Computer Technology M.S. (33 credits)
CIP Code: 150303 Major Code: 06 E960 MS

The Electronics and Computer program consists of two concentrations in which applicants can focus their graduate study. The concentrations are Automation and Controls, and Information Technology.
In addition to the admission standards previously cited, applicants to the Automation and Controls concentration are expected to have completed an undergraduate major in computer technology or electronics (with courses related to computer interfacing, process control technology, machinelevel languages, instrumentation, electrical power, or electronics application and design) and possess an appropriate working knowledge of mathematics and science.
Applicants to the Information Technology concentration are expected to have completed an undergraduate major in information technology, computer science, computer technology, or electronics with courses in digital systems and computer interfacing.
Prospective students who have completed undergraduate programs in areas unrelated to areas appropriate to their concentration may request evaluation of their programs of preparation for identification of deficiencies, the removal of which would enable them to enroll in the core courses (i.e. satisfy course prerequisites that may exist).
Graduate study in electronics and computer technology is designed for persons preparing for career advancement or improvement in automation, information systems, or related support areas.
With a 33 credit hour minimum, the curriculum is intended to provide a rigorous and individualized program that accommodates the previous experiences, education, and interests of degree candidates. For earning a master's degree, the curriculum sequence includes three program phases concerning the "content," "application," and "integration" of related knowledge, theory, and skill.
Content (21-24 credits):

During this preliminary program phase, students, through completion of 21-24 credit hours of study, are expected to acquire or improve competencies relating to advanced electronics, industrial control, and computer technology.
Research (3 credits):

- ECT 698 - Research in Electronics and Computer Technology 3 credits

Core (6 credits):

- ECT 537 - Industrial Computer Systems Management 3 credits
- ECT 679 - Problems in Electronics and Computer Technology 3 credits

Required Major Courses (9 credits):

Automation & Controls Concentration: Choose from the following:
- ECT 542 - Electronic Control Systems 3 credits
- ECT 623 - Analog Based System Design and Development 3 credits
- ECT 634 - Automated Systems Integration 3 credits
- ECT 642 - Microcomputer Based Process Control Technology 3 credits
- ECT 661 - Robotic Electronic Controls 3 credits
- ECT 663 - Theory of Electronic Control 3 credits

Information Technology Concentration: Choose from the following:
- ECT 631 - Local Area Networks 3 credits
- ECT 633 - Information Security Management 3 credits
- ECT 635 - Network Sevice Administration 3 credits

Major Electives (3-6 credits):
- As approved by advisor.

Electives outside the department (6-9 credits):
- As approved by advisor.

Culminating experience:
The following course must be completed during the last semester of course work or after completing 24 credit hours of the approved program of study:
- ECT 680 - Seminar: Analysis of Technical Systems 3 credits

Note:
At least one-half of the credit hours must be in courses numbered at the 600 level or above.
Note:
Courses in the 500 series are open to undergraduates as *400 series. Graduate students are required to do additional work of a research nature. A course taken at the 400 level may not be repeated at the 500 level.
Effective term: Fall 2012

UNDERGRADUATE APPROVALS

NEW COURSES

SCOTT COLLEGE OF BUSINESS: Marketing and Operations

OSCM 300 - Fundamentals of Supply Chain Management
3 credits
An overview of the objectives, processes, and functions of supply chain management activities including sourcing, manufacturing, and logistics. Topics include procurement management, manufacturing and service designs, logistics and customer fulfillment strategy. Provides a basic understanding of the design, implementation, and broad management of supply chain systems.
Prerequisites: BUS 100 or MGT 140 and at least sophomore 2 standing or consent of department chairperson. Not open to students with credit for OSCM 490.
A-F Grading
Effective term: Fall 2012

OSCM 310 - Data-Driven Decision Making
3 credits

Emphasizes the use of data to inform business decision-making. Students work in teams for data collection and analysis and to recommend actions. Students gain experience with data collection, evaluation of data quality, and business analytics, as well as effective communication of results to decision-makers.
Prerequisites: BUS 305, MATH 241 or consent of department chairperson.
A-F Grading
Effective term: Fall 2012

OSCM 320 - Problem Solving with Spreadsheets
3 credits
Applies Excel to solve business problems. Students will learn how to identify relevant inputs, specify relationships, calculate outputs, and use Excel Solver to find the best solutions to a wide variety of business applications. Emphasizes critical thinking and effective communication of results to decision makers.
Prerequisites: BUS 180 or consent of department chairperson
A-F Grading
Effective term: Fall 2012

OSCM 445L - Business Process Improvement Experiential Learning Lab
2 credits
The experiential component involves a significant, real-world Six Sigma project selected and carried out by the student over a full semester. Students who successfully complete this course will satisfy the business application requirement for a Six Sigma "Green Belt" certification.
Prerequisites: BUS 351
Co-requisite: OSCM 445
A-F Grading
Effective term: Fall 2012

OSCM 455 - Global Sourcing and Procurement
3 credits
This course is designed to acquaint students with best practices, conceptual tools, and analytical skills necessary for successful procurement of goods and/or services on a global scale.
Prerequisite: OSCM 300 or BUS 351 or consent of department chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2012

OSCM 465 - Service Operations Management
3 credits
This course examines the management of services, focusing on both the strategic and operational aspects of designing new services, assessing and improving service quality, improving the efficiency and effectiveness of service processes, and how new technologies can be integrated into service operations to help achieve these objectives.
Prerequisite: OSCM 300 or BUS 351 or consent of department chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a

research nature.
A-F Grading
Effective term: Fall 2012

COURSE REVISIONS

COLLEGE OF ARTS AND SCIENCES: Interdiciplinary Programs

WS 301 - Gender, Nation, and Class
3 credits
An interdisciplinary and international study of the dynamics and intersections of gender, nation, and class. Using material from the humanities, art, social sciences, and sciences, this course examines the impact of race, ethnicity, national origin, sexuality, an class on women.
Prerequisites: WS 201
Note: Students who have taken 200 may petition the Women's Studies Director to take the course.
Foundational Studies Credit: FS 2010: [Global Perspectives and Cultural Diversity]

Change title and prerequisites to:

WS 301 - Gender, Race, Nation
3 credits
An interdisciplinary and international study of the dynamics and intersections of gender, race, and nation. Using material from the humanities, art, social sciences, and sciences, this course examines the impact of race, ethnicity, national origin, sexuality, and class on women.
Prerequisites: Junior standing
Foundational Studies Credit: FS 2010: [Global Perspectives and Cultural Diversity]
A-F Grading
Effective term: Fall 2012

SCOTT COLLEGE OF BUSINESS: Marketing and Operations

BUS 205 - Business Statistics I
3 credits
An introductory business statistics course dealing both with populations and processes. Topics covered include: graphical concepts, measures of central tendency and dispersion, basic probability concepts, random variables (both discrete and continuous), central limit theorem, hypothesis testing and confidence intervals on means and proportions, and control charts for proportions, means, and variation.
Prerequisites: BUS 180; and MATH 111, 115, or a calculus course.

Change description and prerequisites to:

BUS 205 - Business Statistics I
3 credits
An introductory business statistics course. Topics include graphical concepts, measures of central tendency and dispersion, basic probability concepts, random variables, central limit theorem, and hypothesis testing and confidence intervals. Learning is assisted by statistical software applications. The emphasis is on problem solving for decision making.
Prerequisites: BUS 180; and Math 115 or a calculus course.

A-F Grading
Effective term: Fall 2012

OMA 425 - Business Forecasting
3 credits
An introduction to techniques for developing forecasts for time series data. Forecasting techniques such as smoothing methods, regression, decomposition, and ARIMA models will be covered. Students will learn how to evaluate forecasts, and will examine forecasts from industry and government.
Prerequisites: BUS 305 or equivalent with a minimum grade of C, or consent of Department Chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change prefix and prerequisites to:

OSCM 425 - Business Forecasting
3 credits
An introduction to techniques for developing forecasts for time series data. Forecasting techniques such as smoothing methods, regression, decomposition, and ARIMA models will be covered. Students will learn how to evaluate forecasts, and will examine forecasts from industry and government.
Prerequisites: BUS 305 or MATH 241or consent of Department Chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature
A-F Grading
Effective term: Fall 2012

OMA 435 - Decision Modeling
3 credits
An introduction to the application of management science techniques and statistical tools to business decisions. Students will learn the assumptions and techniques necessary to apply and to implement solutions from optimization and other decision science models. The focus of the course will be on problem solving, which includes problem definition, problem analysis, evaluation and choice of alternatives, and implementation and evaluation of the decision.
Prerequisites: BUS 305 with a minimum grade of C, or consent of Department Chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change prefix, title and prerequisites to:

OSCM 435 - Business Analytics
3 credits
Applications of Business Analytics to decision making. Students will learn the assumptions and techniques necessary to apply and to implement solutions from optimization, decision analytic, and simulation models to complex business decisions.
Prerequisites: OSCM 320 or consent of the department chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading

Effective term: Fall 2012

OMA 439 - Operations Management and Analysis Internship
3 credits
Students work a predetermined amount of time in an approved position. Prior to registration, the position must be approved, the specific requirements established, and a written agreement must be signed by the employer, the student, and the supervising instructor.
Prerequisites: at least 6 credits of Operations Management and Analysis course work with a grade of C or better and consent of the Department Chairperson on application form.
Note: A written report is required of the student, and a written evaluation by the employer must be made to the supervising University instructor before credit will be granted. May be repeated one time if the second position is significantly different than the first.

Change prefix to:

OSCM 439 - Internship in Operations and Supply Chain Management
3 credits
Students work a predetermined amount of time in an approved position. Prior to registration, the position must be approved, the specific requirements established, and a written agreement must be signed by the employer, the student, and the supervising instructor.
Prerequisites: at least 6 credits of Operations Management and Analysis course work with a grade of C or better and consent of the Department Chairperson on application form.
Note: A written report is required of the student, and a written evaluation by the employer must be made to the supervising University instructor before credit will be granted. May be repeated one time if the second position is significantly different than the first.
A-F Grading
Effective term: Fall 2012

OMA 445 - Advanced Operations Management
3 credits
This course extends the work done in earlier courses. Some of the latest techniques and concepts in production and service operations management are taught. Possible topics include operations strategy, service system design, supply chain management, project management, production planning and control, and enterprise resource planning. The main emphasis of the course is to focus on current and strategic issues.
Prerequisites: BUS 351 or equivalent with a minimum grade of C, or consent of Department Chairperson.

Change prefix, title, description, credits, and prerequisites to:

OSCM 445 - Business Process Improvement
1 credit
Covers a variety of tools and techniques used for understanding, analyzing, and improving work processes and environments. Heavy emphasis on Lean principles and the Six Sigma body of knowledge. Students who successfully complete this course will satisfy the body of knowledge requirement for a Six Sigma "Green Belt" certification.
Prerequisites: BUS 351
Co-requisite: OSCM 445L
A-F Grading
Effective term: Fall 2012

OMA 475 - Enterprise Resource Planning Systems
3 credits
This course introduces students to Enterprise Resource Planning (ERP) systems using SAP software. Students learn how ERP systems can be used to manage and integrate all functional areas of a modern firm. Students will gain extensive hands-on experience using SAP software. Students repeating the course will also complete a semester research project on ERP systems. Prerequisite: Junior standing in business or consent of Department Chairperson.
Prerequisites: Junior standing in business or consent of Department Chairperson.
Note: The course may be repeated for up to six total credit hours. Open to graduate students. Graduate students are required to do additional work of a research nature.

Change prefix, description, and prerequisites to:

OSCM 475 - Enterprise Resource Planning Systems
3 credits
This course provides an introduction into the use, functionality, and cross-functional nature of Enterprise Resource Planning systems, using SAP software as an example system. Lessons will combine lectures with hands-on exercises designed to introduce the student to numerous functions of the software platform.
Prerequisites: Junior Standing or consent of Department Chairperson; Undergraduates may repeat the course for advanced knowledge.
Repeatable: The course may be repeated for up to six total credit hours.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2012

OMA 486 - Seminar in Operations Management and Analysis
3 credits
The course provides an in-depth study of a selected area that would not ordinarily be presented in a regularly scheduled class.
Prerequisites: BUS 305 or equivalent with a minimum grade of C, or consent of Department Chairperson.
Note: (May be repeated for a maximum of 6 hours; duplicate credit for the same topic will not be given.)

Change prefix, title, description, and prerequisites to:

OSCM 486 - Topics in Operations and Supply Chain Management
3 credits
Presents current topics of special relevance in the OSCM arena. Topic material focuses on current issues in OSCM that are not covered in depth in other OSCM courses. Student participation in researching and discussing topic material will be expected. May be repeated once for a significantly different topic.
Prerequisites: OSCM 300 or BUS 351 or consent of Department Chairperson.
Repeatable: The course may be repeated for up to six total credit hours.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature
A-F Grading

Effective term: Fall 2012

OMA 490 - Supply Chain Management
3 credits
This course is designed to build a basic understanding of the processes involved in managing and integrating the supply chain by using both qualitative and quantitative skills. Focus is on the management of the entire organization, with emphasis placed on managing the flow of information, materials, people, and services from raw materials through production (or service delivery) to the final customer.
Prerequisites: BUS 351 or equivalent with a minimum grade of C, or consent of Department Chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change prefix, title, description, and prerequisites to:

OSCM 490 - Global Supply Chain Management
3 credits
Acquaints students with best practices in global supply chain management. Models, methods, paradigms, and tools necessary for planning, organization, and governance of global supply chains are discussed. Culminates with a study of strategies pertaining to end-to-end fulfillment of global supply chains, considering environmental, ethical, and cultural factors.
Prerequisites: OSCM 300 or BUS 351 or consent of Department Chairperson.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature
A-F Grading
Effective term: Fall 2012

COURSE BANKING

SCOTT COLLEGE OF BUSINESS: Marketing and Operations

OMA 405 - Business Statistics III
OMA 460 - Risk and Decision Analysis
OMA 470 - Business Process Simulation

Effective term: Fall 2012

NEW PROGRAMS

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Health Sciences

Gerontology Certificate (12 credits)
CIP Code: 30.1101 Major Code:

Brief Summary:

As the world's population continues to age, many opportunities and challenges present themselves. We need to foster a society that both encourages and allows older adults to remain

actively engaged, sharing critical knowledge, skills, and experience with younger generations. Recognizing the prevalence of chronic health conditions among older adults, we must continue to provide necessary health care to the most rapidly growing segment of the population, particularly in underserved areas. We have to identify and address stereotypes of aging that impair quality of life for the subjects of such stereotypes as well as those who hold them. These issues and many others facing society as the population ages are dealt with in the Indiana State University Gerontology program. Students from a variety of majors, for example those in the Applied Health Sciences majors, Nursing, Kinesiology, Recreation, and Sports, Social Work, Psychology, and Music, among others, are prepared with the knowledge and experience necessary to succeed in age-related careers. Aging is both a personal experience and a social phenomenon and is addressed at all ecological levels in the Gerontology program at ISU.

Student Learning:

Student objectives and outcomes:

Objective 1: Understand the aging process.

Outcome 1a: Describe normal changes associated with aging.

Outcome 1b: Distinguish between normal aging changes and changes/behaviors associated with pathological conditions.

Objective 2: Think critically about and take an informed position on aging issues in society.

Outcome 2a: Describe major substantive areas of aging such as politics, health, family relationships and caregiving, work and retirement, economic well-being, housing, and demographics.

Outcome 2b: Critique public policies that affect older adults.

Outcome 2c: Relate analysis of scholarly literature to individual older adults' experiences.

Objective 3: Contribute actively to the well-being of older adults.

Outcome 3a: Explain Medicare to older adults and their families in broad terms.

Outcome 3b: Evaluate wellness programs for older adults.

Outcome 3c: Refer older adults and their families to appropriate service providers (e.g., for help with Medicare questions).

Proposed Catalog Copy:

Gerontology Certificate (12 credits)
CIP Code: 30.1101 Major Code:

As the world's population continues to age, many opportunities and challenges present themselves. Issues society faces as the population ages are dealt with in the Indiana State University Gerontology Certificate program. Students are prepared with the knowledge and experience necessary to succeed in age-related careers, from psychology to recreation and sports management to nursing. Aging is both a personal experience and a social phenomenon and is addressed at all ecological levels.

Required Courses (9 credits):
AHS 305 – Society and Aging 3 credits
AHS 302 – Health Promotion and Aging 3 credits
AHS 491 – Health Sciences Internship 3 credits

Elective Courses (choose 3 credits from the following):
RCSM 473 – Aging and Leisure 3 credits
SOC 421 – Sociology of Aging and Retirement 3 credits
SOC 472 – Families in Later Life 3 credits
Effective term: Fall 2012

COLLEGE OF TECHNOLOGY: Applied Engineering and Technology Management

Lean Six Sigma Certificate (12 credits)
CIP Code: 150612 Major Code:

Brief Summary:

The Applied Engineering and Technology Management Department (AETM) currently offers a 21 credit minor in quality, which is called Lean Six Sigma (Lean SS). The department also offers graduate courses for the MS in Technology Management quality concentration and the PhD in Technology Management quality specialization. At the time the Lean SS minor was in the approval process, Provost Maynard and others recognized a niche that ISU could market, i.e., a substantive credit-bearing certificate in Lean SS. Most Lean SS certificates across the nation are associated with a few hours of training and are not credit bearing. Dr. Brauchle, the Dean of Distance Education, believes this certificate to be marketable to new constituents.

Non-degree seeking personnel in business and industry (locally, and potentially nationally and internationally) and current degree-seeking students could earn this certificate. For non-degree seeking students, the certificate could be a gateway to an ISU BS or MS.

The Lean Six Sigma certificate would be a 4 course subset of the current minor in Lean Six Sigma. These 4 courses do not have any other pre-requisites. These 4 courses constitute the essentials necessary to fully understand the methodologies of Lean and of Six Sigma. Additionally, most of the courses in the certificate are required or often selected as electives for others majors. All the 400-level courses have 500-level versions and are required or often used as electives in various MS degrees.

Based on current capacities, approximately 50 new students in the certificate could be added before additional sections would be needed. Every course is available online.

Vertical marketing is envisioned, i.e., brochure and web materials that market the quality courses and programs: certificate, minor, MS concentration, and PhD specialization.

Student Learning:

Student outcomes assessment was not a major impetus for this certificate. Input and data fromquality professionals, the American Society for Quality, other institutions, and current ISU students and alums were considered. Outcomes assessment is implemented for the majors in the Department. The Lean Six Sigma minor, of which this certificate is a sub-set, is assessed as part of the outcome assessment plan for the BS in Technology Management.

Proposed Catalog Copy:

Lean Six Sigma Certificate (12 credits)
CIP Code: 150612 Major Code:
Lean Six Sigma Certificate (12 credits)

The Lean Six Sigma (LSS) Certificate is open to any ISU student with regular or non-degree seeking status. Lean Six Sigma is a melding of cutting edge industrial efficiency and quality techniques that are increasingly being applied to all businesses and organizations to improve quality while reducing costs. Unlike many of the short seminars that are offered in this area, ISU's LSS Certificate program consists of four credit-bearing courses.

Required Courses:

Applied Engineering and Technology Management (12 credits):

•TMGT 361 - Quality Systems and Tools 3 credits
•TMGT 374 - Lean Manufacturing Systems 3 credits
•TMGT 461 - Lean Six Sigma 3 credits
•TMGT 471 - Production Planning and Control I 3 credits
Effective term: Fall 2012

PROGRAM REVISIONS

COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

Physics Minor (32 credits)
CIP Code: 400801 Major Code: 1423

Brief Summary:

Revisions are proposed for the physics minor curriculum. These revisions stem from changes in course number for PHYS 205/206 to PHYS 115/116 and replacement of two required physics courses with one required elective. These changes reduce by 3 credits the total number of credits required to complete the physics minor.

The proposed changes are:

1. PHYS 115, 115L and PHYS 116, 116L are added to the Physics Minor Curriculum. They replace PHYS 205, 205L and PHYS 206, 206L, respectively (separate course proposal forms

have been submitted).

2. PHYS 205, 205L and PHYS 206, 206L are eliminated from the physics minor curriculum.

3. PHYS 310 and 341 are no longer required for the Physics Minor. These courses are replaced by an elective course.

Student Learning:

PHYS 205 and 206 are the first year courses in physics that all physics majors are required to take. Changing the number to PHYS 115 and PHYS 116 more appropriately reflects this fact.

Proposed Catalog Copy:

Physics Minor (29 credits)
CIP Code: 400801 Major Code: 1423

Required Physics (21 credits):

PHYS 115 - University Physics I 4 credits
PHYS 115L - University Physics I Laboratory 1 credit
PHYS 116 - University Physics II 4 credits
PHYS 116L - University Physics II Laboratory 1 credit
PHYS 215 - Modern Physics I 3 credits
PHYS 215L - Modern Physics I Laboratory 1 credit
PHYS 216 - Modern Physics II 3 credits
PHYS 216L - Modern Physics II Laboratory 1 credit

Choose one from the following:

PHYS 309 – Statics 3 credits
PHYS 310 – Analytical Mechanics 3 credits
PHYS 341 – Electricity and Magnetism I 3 credits
PHYS 420 – Thermodynamics and Statistical Mechanics 3 credits
PHYS 497 - Quantum Mechanics

Required Mathematics (8 credits):

MATH 131 - Calculus I 4 credits
MATH 132 - Calculus II 4 credits
Effective term: Fall 2012

COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

Physics Major (63-65 credits)
CIP Code: 400801 Major Code: 1423

Brief Summary:

Revisions are proposed for the physics major curriculum. These revisions stem from changes in course number for PHYS 205/206 to PHYS 115/116 and introduction of a new course (PHYS 405). Physics majors fulfill program requirements by completing a common Core Curriculum and one of three concentrations (Professional Physics, Chemical Physics, and Engineering Physics).
The proposed revisions are:
1. PHYS 115, 115L and PHYS 116, 116L are added to the Core Curriculum. They replace PHYS 205, 205L and PHYS 206, 206L, respectively (separate course proposal forms have been submitted).
2. PHYS 205, 205L and PHYS 206, 206L are eliminated from the physics major curriculum.
3. PHYS 405 (Senior Culminating Experience in Physics) is added to the Core Curriculum.
4. PHYS 322 is removed from the Core Curriculum.
5. PHYS 322 is added to the Professional Physics concentration and to the Chemical Physics concentration.
6. PHYS 405 is added to the core.

The proposed revisions increase by one the total credits required to complete the physics major.

Student Learning:

PHYS 205 and 206 are the first year courses in physics that all physics majors are required to take. Changing the number to PHYS 115 and PHYS 116 more appropriately reflects this fact.

PHYS 322 (Mathematical Methods for Physics II) is removed from the Core Curriculum since it is not required for all three concentrations. PHYS 322 is added to the Professional Physics concentration and to the Chemical Physics concentration since it is a prerequisite for courses required for these concentrations (PHYS 420 and PHYS 497).

PHYS 405 (Senior Culminating Experience in Physics) is added to the Core Curriculum in order to comply with the University Board of Trustees' directive that all programs have a culminating experiential learning experience. This course is required of all physics majors with senior standing (more than 93 total earned credits).

Proposed Catalog Copy:

Physics Major (62-66 credits)
CIP Code: 400801 Major Code: 1423

Core Curriculum (43 credits):

Required Chemistry (8 credits):

CHEM 105 - General Chemistry I 3 credits

CHEM 105L - General Chemistry I Laboratory 1 credit
CHEM 106 - General Chemistry II 3 credits
CHEM 106L - General Chemistry II Laboratory 1 credit

Required Mathematics (8 credits):

MATH 131 - Calculus I 4 credits
MATH 132 - Calculus II 4 credits

Required Physics (27 credits):

PHYS 115 - University Physics I 4 credits
PHYS 115L - University Physics I Laboratory 1 credit
PHYS 116 - University Physics II 4 credits
PHYS 116L - University Physics II Laboratory 1 credit
PHYS 215 - Modern Physics I 3 credits
PHYS 215L - Modern Physics I Laboratory 1 credit
PHYS 216 - Modern Physics II 3 credits
PHYS 216L - Modern Physics II Laboratory 1 credit
PHYS 310 - Analytical Mechanics 3 credits
PHYS 321 Mathematical Methods in Physics I 2 credits
PHYS 341 - Electricity and Magnetism I 3 credits
PHYS 405 Senior Culminating Experience in Physics 1 credit

Complete one of the concentrations to fulfill program requirements:

Chemical Physics Concentration (21 credits):

This program is designed for the student who wishes to pursue an advanced degree or career at the interface of physics and chemistry or in materials science.

Required Chemistry (14 credits):

CHEM 321 - Analytical Chemistry 4 credits
CHEM 461 - Physical Chemistry I 4 credits
CHEM 461L - Experimental Physical Chemistry I 1 credit
CHEM 462 - Physical Chemistry II 4 credits
CHEM 462L - Experimental Physical Chemistry II 1 credit

Required Physics (7 credits):

PHYS 315 - Advanced Laboratory I 1 credit
PHYS 316 - Advanced Laboratory II 1 credit
PHYS 322 - Mathematical Methods in Physics II 2 credits
PHYS 497 - Quantum Mechanics 3 credits

Engineering Physics Concentration (19 credits)

This program is designed for the student who wishes to pursue an advanced degree or career in applied physics or engineering.

Required Computer Science (3 credits):

CS 256 - Principles of Structured Design 3 credits

Required Mechanical Engineering Technology (11 credits):

MET 103 - Introduction to Technical Graphics with CAD 3 credits
MET 130 - Introduction to Engineering and Technology 2 credits
MET 203 - Introduction to Solid Modeling 3 credits
MET 404 - Engineering Design and Management 3 credits

Required Physics (5 credits):

PHYS 309 - Statics 3 credits
PHYS 315 - Advanced Laboratory I 1 credit
PHYS 316 - Advanced Laboratory II 1 credit

Professional Physics Concentration (23 credits):
This program is designed for the student who wishes to pursue an advanced degree or career as a professional physicist.

Required Mathematics (7 credits):

MATH 231 - Calculus III 4 credits
MATH 333 - Differential Equations 3 credits

Required Physics (16 credits):

PHYS 311 - Analytical Mechanics II 3 credits
PHYS 315 - Advanced Laboratory I 1 credit
PHYS 316 - Advanced Laboratory II 1 credit
PHYS 322 - Mathematical Methods in Physics II 2 credits
PHYS 342 - Electricity and Magnetism II 3 credits
PHYS 420 - Thermodynamics and Statistical Mechanics 3 credits
PHYS 497 - Quantum Mechanics 3 credits
Effective term: Fall 2012

COLLEGE OF ARTS AND SCIENCES: Psychology

Psychology Major (40-43 semester hours minimum)
CIP Code: 420101 Major Code: 3722

Brief Summary:

The department is making two revisions to the Psychology Major:

1. The MATH requirement is being changed from MATH 099 or greater to MATH 099 or MATH 115.

2. The minimum grade of C is being applied to the Psychology core courses.

Proposed Catalog Copy:

Psychology Major (40-43 semester hours minimum)
CIP Code: 420101 Major Code: 3722

Required Psychology Core (28 credits minimum):

PSY 101 - General Psychology: Understanding Human Behavior 3 credits
PSY 150 - Careers in Psychology 1 credits
PSY 201 - Introduction to Research Methods in Psychology 3 credits
PSY 375 - Statistics in Psychology 3 credits
PSY 376 - Advanced Research and Writing 3 credits

Select *at least 5* of the following additional core courses:

PSY 266 - Developmental Psychology 3 credits
PSY 270 - Psychological Orientation to Social Psychology 3 credits
PSY 310 - Learning 3 credits
PSY 342 - Perception 3 credits
PSY 344 - Cognitive Psychology 3 credits
PSY 356 - Physiological Psychology 3 credits
PSY 362 - Psychology of Personality 3 credits
PSY 368 - Introduction to Abnormal Psychology 3 credits

Psychology core courses must be completed with a minimum grade of C.

Required Mathematics (0-3 credits):

MATH 099 - Intermediate Algebra 3 credits (credits do not count towards major or graduation)
or
MATH 115 – College Algebra 3 credits

Directed Electives (9 credits):

Any courses offered in the Department of Psychology.

Culminating Experience (3 credits):

Complete one of the following courses with a minimum grade of C:

PSY 484 - Field Work in Psychology 3 credits
PSY 486 - Research in Psychology 3 credits
PSY 499T - Honors Thesis 3-6 credits

Note: At least 18 credits of psychology courses must be taken from Indiana State University.
Effective term: Fall 2012

GRADUATE APPROVALS

NEW COURSES

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Health Sciences

AHS 557 - Food Protection
3 credits
Principles and theories of food sanitation. Emphasis in understanding sources of food poisoning, food handling, pest control in the food industry, and food service establishments. Local, State, and Federal regulations and implementation are examined. Lectures, demonstrations, discussion and visitations enable familiarization with food sanitation and food service inspections.
A-F Grading
Effective term: Fall 2012

COLLEGE OF TECHNOLOGY

COT 711 Research Residency Seminar
2 credits
Executive-style four and a half-day seminar plus on-line work focusing on professional development and research in technology management.
Note: Requires one face-to-face session during the semester. This session requires attendance on the Indiana State University campus.
Prerequisite: COT 710.
A-F Grading
Effective term: Fall 2012

COURSE REVISIONS

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Health Sciences

CHANGE PREFIX FROM HLTH		**TO AHS**
HLTH 515 A	Driver Education Task Analysis	AHS 515A
HLTH 515B	Developing Driver Skills and Competencies	AHS 515B
HLTH 527	Special Subjects in Health and Safety	AHS 527
HLTH 545	Developing Classroom Knowledge and Program Management	AHS 545
HLTH 546	Individual, Community, and General Safety Education	AHS 546
HLTH 601	Research Methodology in Sciences	AHS 601
HLTH 602	Introduction to Public Health	AHS 602
HLTH 604	Research Design and Data Analysis in Health and Human Performance	AHS 604
HLTH 609	Applied Communications in Health Professions	AHS 609
HLTH 612	Epidemiology	AHS 612
HLTH 613	School Health Curriculum	AHS 613
HLTH 614	Principles of Environmental Health	AHS 614
HLTH 617	Health Behavior Theories	AHS 617
HLTH 619	Seminar: Advanced Health Program Planning and Coordination	AHS 619
HLTH 621	Special Topics in Health, Safety and the Environment	AHS 621
HLTH 628	Seminar: Advanced Program Evaluation in Health Professions	AHS 628
HLTH 632	Health Care Organization and Operation	AHS 632
HLTH 691	Internship in Community Health Promotion	AHS 691
HLTH 699	Master's Thesis	AHS 699

Effective term: Fall 2012

SCOTT COLLEGE OF BUSINESS: Marketing and Operations

OMA 525 - Business Forecasting
3 credits
An introduction to techniques for developing forecasts for time series data. Forecasting techniques such as smoothing methods, regression, decomposition, and ARIMA models will be covered. Students will learn how to evaluate forecasts, and will examine forecasts from industry and government.
Prerequisites: BUS 305 or equivalent with a minimum grade of C or consent of M.B.A. Director.

Change prefix, and prerequisites to:

OSCM 525 - Business Forecasting
3 credits
An introduction to techniques for developing forecasts for time series data. Forecasting techniques such as smoothing methods, regression, decomposition, and ARIMA models will be

covered. Students will learn how to evaluate forecasts, and will examine forecasts from industry and government.
Prerequisites: BUS 305 or MATH 241 or MBA 612 or consent of Department Chairperson
A-F Grading
Effective term: Fall 2012

OMA 535 - Decision Modeling
3 credits
An introduction to the application of management science techniques and statistical tools to business decisions. Students will learn the assumptions and techniques necessary to apply and to implement solutions from optimization and other decision science models. The focus of the course is on problem solving, which includes problem definition, problem analysis, evaluation and choice of alternatives, and implementation and evaluation of the decision.
Prerequisites: BUS 305 or equivalent with a minimum grade of C, or consent of Department Chairperson.

Change prefix, title, description, and prerequisites to:

OSCM 535 - Business Analytics
3 credits
Applications of Business Analytics to decision making. Students will learn the assumptions and techniques necessary to apply and to implement solutions from optimization, decision analytic, and simulation models to complex business decisions.
Prerequisites: OSCM 320 or consent of Department Chairperson
A-F Grading
Effective term: Fall 2012

OMA 575 - Enterprise Resource Planning Systems
3 credits
This course introduces students to enterprise resource planning systems using SAP software. Students learn how these planning systems can be used to manage and integrate all functional areas of a modern firm. Extensive hands-on experience using SAP software is included as a full semester research project on enterprise resource planning systems.

Change prefix, and description to:

OSCM 575 - Enterprise Resource Planning Systems
3 credits
This course provides an introduction into the use, functionality, and cross-functional nature of Enterprise Resource Planning systems, using SAP software as an example system. Lessons will combine lectures with hands-on exercises designed to introduce the student to numerous functions of the software platform
A-F Grading
Effective term: Fall 2012

OMA 586 - Seminar in Operations Management and Analysis
3 credits
The course provides an in-depth study of a selected area that would not ordinarily be presented in a regularly scheduled class. (May be repeated for a maximum of 6 hours; duplicate credit for the same topic will not be given.)

Prerequisites: BUS 305 or equivalent with a minimum grade of C, or consent of department chairperson.

Change prefix, title, description, and prerequisites to:

OSCM 586 - Topics in Operations and Supply Chain Management
3 credits
Presents current topics of special relevance in the OSCM arena. Topic material focuses on current issues in OSCM that are not covered in depth in other OSCM courses. Student participation in researching and discussing topic material will be expected.
Repeatable: May be repeated once for a significantly different topic.
Prerequisites: OSCM 300 or BUS 351 or consent of Department Chairperson.
A-F Grading
Effective term: Fall 2012

OMA 590 - Supply Chain Management
3 credits
This course is designed to build a basic understanding of the processes involved in managing and integrating the supply chain by using both qualitative and quantitative skills. Focus will be on the management of the entire organization, with emphasis placed on managing the flow of information, materials, people, and services from raw materials through production (or service delivery) to the final customer.
Prerequisites: 445 with a minimum grade of C, or consent of Department Chairperson.

Change prefix, title, description, and prerequisites to:

OSCM 590 - Global Supply Chain Management
3 credits
Acquaints students with best practices in global supply chain management. Models, methods, paradigms, and tools necessary for planning, organization, and governance of global supply chains are discussed. Culminates with a study of strategies pertaining to end-to-end fulfillment of global supply chains, considering environmental, ethical, and cultural factors.
Prerequisites: OSCM 300 or BUS 351 or consent of Department Chairperson.
A-F Grading
Effective term: Fall 2012

OMA 690 - Special Topics in the Decision Sciences
1-6 credits
A subject in the decision sciences area will be examined. The topic area may vary each semester.
Prerequisites: consent of the instructor.
Note: This course is designed to meet special interest needs of the students. Since topics vary, this course may be taken more than once.

Change prefix, title, description, and prerequisites to:

OSCM 690 - Advanced Topics in OSCM
1-6 credits
A special topic in the area of Operations and Supply Chain Management will be presented. Topics will vary by semester and will cover areas of particular relevance in the field. There will normally be a significant research component to this course.
Prerequisites: Consent of Department Chairperson
Repeatable: This course may be repeated.

Note: Since topics will vary, this course may be repeated if the topic is significantly different and with the approval of the Department Chairperson.
A-F Grading
Effective term: Fall 2012

COLLEGE OF TECHNOLOGY

COT 709 - Research Residency Seminar
3 credits
Executive-style five-day seminar focusing on professional development and leadership topics common to technology management.
Note: Requires two sessions during the semester. Each session requires attendance on the Indiana State University campus.

Change title, description to:

COT 710 - Research Residency Orientation Seminar
1 credit
Executive-style three and a half-day seminar plus on-line work focusing on professional development and technology management program orientation.
Note: Requires one face-to-face session during the semester. This session requires attendance on the Indiana State University campus.
A-F Grading
Effective term: Fall 2012

COURSE BANKING

SCOTT COLLEGE OF BUSINESS: Marketing and Operations

OMA 505 - Business Statistics III
OMA 560 - Risk and Decision Analysis
Effective term: Fall 2012

NEW PROGRAMS

The Commission of Higher Education approved the the M.S. In Technology Management on 2/10/12.

COLLEGE OF TECHNOLOGY: Applied Engineering and Technology Management

M.S. Technology Management (36 credits)
CIP Code: 150612 Major Code: _____

Brief Summary:

The faculty of the MS in Industrial Technology (MSIT) program have determined a need to revise the program. Based on advice from Dean Sims and Assoc. Provost English, after consulting the Indiana Commission for Higher Education (CHE), a new program in Technology

Management (MSTM) is being proposed. If approved, the MSIT will be deleted. In essence, the proposed MSTM program is the existing MSIT program with the numbered alterations that follow. The alterations have the following characteristics.

a. The alterations are based on input from current and former students, industry constituents, and nation-wide changes to the profession.

b. The alterations will aid the marketing and administration of the program. New constituencies will be served. Graduates will be more marketable.

Though technically MSTM is being submitted as a new program, wording will be used, in this document that indicates the current MSIT program being revised or transformed to the new MSTM program. Another way to think about the change is that the new MSTM program will enhance and subsume the current MSIT program.

The alterations to the current MSIT program that will transform it to the new MSTM program follow.

1. Change the name from Industrial Technology to Technology Management. In recent years, the profession and has updated "industrial technology" to "technology management," e.g., the associated professional organization of the National Association of Industrial Technology (NAIT) has changed its name to the Association of Technology Management and Engineering (ATMAE). The aligned BS and PhD programs at ISU have already been changed to Technology Management.

2. Increase the total hours in the program from 33 to 36 by adding the MET 505 engineering economy course to the core. Most current students have been taking this course by election or advisement. The faculty decided that (a) the hours in the program should be increased and (b) that this course should be required. International students (the majority of the students in the program) usually take 36 or more hours. Thirty-six hours in the program better fits student's expectations, preparation for the PhD, and international student's programs of study. Most international students take 9 hours per semester for 4 (Fall and Spring) semesters for a total of 36 credit hours. MET 505 is now considered "core" content for most MS students with this type of degree.

3. Standardize and specify the concentrations. The current MSIT program requires a concentration but concentrations are not named. Therefore, concentrations cannot be stated on transcripts. Concentrations will provide clearer options for students. Defined concentrations will bring a uniformity to the program that will better serve students, be more marketable, and enable better course scheduling and aid other faculty deployment issues.

The change to the named concentrations is expected to increase enrollments. Many students considering the current MSIT program have stated they desire a more focused degree and would like their concentration stated on their transcript.

Currently, the associated BS and PhD degrees have named minors or specializations that provide distinction and value. The change to MSTM as proposed would fill in the gap between the current BS and PhD programs. It is expected that both (a) more BS students will continue at ISU

for the MSTM and (b) additional PhD students will use the MS concentration as a prerequisite to the PhD program. It is expected that the enrollments in the PhD will increase due to the MSTM program being a better fit than the current MSIT program.

4. Become a CHE-approved distance program. Though every required core course in the current MSIT has been offered at a distance at least once over the past several years, not all concentration courses were at a distance. The proposal is now that all concentration courses would be available online. Via a roll-out, sufficient on-campus sections will also be offered to accommodate the on-campus visa-related needs of international students and other students who desire on-campus courses. The change that is necessary to make every course (core and concentration) at a distance is to develop distance versions of a few courses.

5. Add a required comprehensive evaluation to the culminating experience. Per policy at the program level this will become part (one of the steps) of the how we administer the culminating experience. Currently this is allowed but not standardized. The comprehensive evaluation is viewed as a significant increase in quality and will become a major part of the program's outcome assessment. A program policy exists to guide the outcomes assessment process.

Student Learning:

Formal students outcomes assessment for the program is new but functioning. The outcomes for the program developed and the measures for the outcome have been used and evaluated (except for the evaluation of comprehensive evaluations; comps will not take effect unless the proposal is approved). The outcomes assessment for the current MS in Industrial Technology was developed with input from (or in consideration of) the following. Feedback via other program's outcome assessment; the Advanced Manufacturing Management program's advisory committee; practitioners in various technology fields, e.g., automotive, manufacturing, packaging, etc.; students and faculty in the PhD in Technology Management program; members of professional organizations, e.g., American Society of Automotive Engineers, American Society for Quality, and others.

Proposed Catalog Copy:

M.S. Technology Management (36 credits)
CIP Code: 150612 Major Code: _____

Mission Statement: The master of science in technology management program provides a strong graduate education by integrating teaching with applied research in an engaging, challenging and supportive learning environment to prepare leaders to serve the technology needs of the State of Indiana, the U.S., and the international community.

The Technology Mangement Program is meant to further the academic preparation and professional advancement of the baccalaureate graduate with a degree in, and professional orientation toward technology management or similar industrial-technical field. The program provides theoretical and practical learning experiences to prepare graduates for leadership positions in a relevant industry and/or prepare them for doctoral level programs such as the PhD

in technology management. The technical concentration is meant to allow an individualized contract of study that can best fit the student's prior course work, experiences, and goals.

Unconditional entrance to the program requires a baccalaureate degree closely related to one of following technical areas: automotive; manufacturing; mechanical engineering technology; packaging; or similar technical, engineering technology, or technology management field aligned with one of the concentration areas.

Technology Mangement Core (15 credits):

- MET 505 - Economic Analysis for Engineering and Technology 3 credits
- TMGT 591 - Creativity and Ideation Techniques and Practice 3 credits
- TMGT 601 - Technology and the Supervisor 3 credits
- TMGT 607 - Statistics for Experimental Research in Technology 3 credits

Select one course from the following:

- ECT 698 - Research in Electronics and Computer Technology 3 credits
- TMGT 698 - Research Methods 3 credits

Concentration (15 - 18 credits): 15 hours required if TMGT 699 is selected for the Culminating Experience (below). 18 hours required if TMGT 697 is selected.
Note: Additional undergraduate course work may be required to correct deficiencies.

Automotive Concentration (15 - 18 credits)

The Automotive Concentration prepares individuals for career enhancement and or advancement within the automotive industry.

Select four courses from the following list:

- AET 532 - Parts Distribution and Marketing 3 credits
- AET 533 - Service Facility Organization and Management 3 credits
- AET 535 - Engine Thermodynamics 3 credits
- AET 540 - Fixed Operations Management 3 credits
- AET 557 - Fleet Management 3 credits
- AET 558 - Technological Perspectives in Entrepreneurship 3 credits
- AET 577 - Advanced Vehicle Technologies 3 credits

Electives:

- Select 3-6 credits in consultation with advisor

Manufacturing Concentration (15 - 18 credits)

The Manufacturing Concentration prepares individuals for certification and professions in Manufacturing, e.g, Manufacturing Engineer or Manufacturing Manager.

- TMGT 563 - Quality and Process Control 3 credits
- TMGT 571 - Production Planning and Control 3 credits
- TMGT 578 - Industrial Organization and Functions 3 credits
- MFG 700 - Human Relations and Leadership in Manufacturing 3 credits

Electives:
- Select 3-6 credits in consultation with advisor

Mechanical Engineering Technology Concentration (15 - 18 credits)

The Mechanical Engineering Technology Concentration prepares graduates to have advanced careers in the analysis, design, development, implementation, testing, maintenance, management, or technical sales of complex mechanical systems and processes.

Select four courses from the following:
- MET 504 - Engineering Design and Management 3 credits
- MET 608 - Application of Simulation Modeling and Analysis 3 credits
- MET 610 - Vehicle Body Structure Design 3 credits
- MET 612 - Reliability, Maintainability, and Serviceability 3 credits
- MET 633 - Computer Aided Graphics Software 3 credits

Electives - 3 - 6 credits from the following:
- MET 605 - Advanced Economic Analysis for Technology 3 credits
- MET 611 - Experimental Design and Process Analysis 3 credits
- MET 614 - Logistics and Distribution Systems 3 credits
- Other course(s) as approved by the advisor

Packaging Concentration (15 - 18 credits)

The Packaging Concentration is designed to prepare technical managers for service in the field of packaging engineering and design.

- PKG 582 - Package Development and Analysis 3 credits
- PKG 584 - Packaging Design, Analysis and Testing 3 credits
- PKG 586 - Packaging Machinery Systems 3 credits
- PKG 589 - Packaging Industry Projects 3 credits

Electives:
- Select 3-6 credits in consultation with advisor

Note: Additional undergraduate course work may be required to correct deficiencies.

Quality Concentration (15 - 18 credits)

The uality Concentration prepares individuals for certifications in quality and professions in quality, e.g., Quality Engineer, Quality Manager, or Six Sigma.

Select four courses from the following list:
- TMGT 561 - Lean Six Sigma 3 credits
- TMGT 563 - Quality and Process Control 3 credits
- TMGT 569 - Process Analysis and Improvement 3 credits
- MET 611 - Experimental Design and Process Analysis 3 credits
- MET 612 - Reliability, Maintainability, and Serviceability 3 credits
- TMGT 665 - Quality Standards Leadership 3 credits

- TMGT 669 - Seminar in Quality Systems 3 credits

Electives:

- Select 3-6 credits in consultation with advisor

Culminating Experience: Choose one course from the list below (3-6 credits):
Note: a comprehensive examination may be required in each of these options.

- TMGT 697 - Major Project 3 credits
- TMGT 699 - Thesis 6 credits

Preferred effective term: Fall 2012

PROGRAM ELIMINATIONS

COLLEGE OF TECHNOLOGY: Applied Engineering and Technology Management

M.S. Industrial Technology (33 credits minimum) CIP Code 150612 Major Code: E563

Brief Summary:

The MSIT program is being changed to the MS in Technology Management program. See accompanying proposal. If the change to MSTM is approved, the MSIT will be deleted.
Preferred effective term: Fall 2012

CORRECTIONS

The following corrections are reflected in *bold and italics:

HLTH 201 -Introduction to Aviation Environmental Management
2 credits
An overview of current environmental health related issues in aviation communities such as stormwater, noise, air pollution, SPCC (Spill Prevention, Control, and Countermeasure) compliance, environmental impact assessment, and environmental justice. The basic principles involved in pollution prevention and control technology and regulations related to those issues will also be discussed.

Change prefix and number to:

***AHS 222* -Introduction to Aviation Environmental Management**
2 credits An overview of current environmental health related issues in aviation communities such as stormwater, noise, air pollution, SPCC (Spill Prevention, Control, and Countermeasure) compliance, environmental impact assessment, and environmental justice. The basic principles involved in pollution prevention and control technology and regulations related to those issues are also discussed.
A-F Grading
Effective term: Fall 2012