

General Curriculum Report #220

UNIVERSITY OF IDAHO - REGISTRAR'S OFFICE

May 6, 2002

TO: MEMBERS OF THE UNIVERSITY OF IDAHO FACULTY

The items listed below, approved by the University Curriculum Committee, will be considered to have the necessary faculty approvals unless a petition requesting further consideration of specific items is signed by five faculty members and submitted to the chair of the Faculty Council within 14 calendar days after the date of circulation. If no petition is received within 14 days, the entire report will be submitted to the president for approval and transmittal to the regents, if regents action is required. If a petition is received, the items in the report for which further consideration is requested will be referred to the Faculty Council and the remainder of the report will move forward. On items referred to it, the council may: (1) affirm the action and report it to a meeting of the university faculty, (2) amend the action and report it to a meeting of the university faculty, or (3) rescind the action. *Note:* If a petition concerns courses or curricula in the College of L & S or in the College of Agriculture, and is signed by five faculty members of the respective college, those items will be returned to the college concerned for further consideration.

ADULT, COUNSELOR & TECHNOLOGY EDUCATION

Drop the following dormant courses [*Effective: Spring 2003*]:

1. ITED 262 Piping Design (3 cr)
2. ITED 303 Advanced Machine Technology (2-3 cr)
3. ITED R366 Fire Department Organization & Management (3 cr)
4. ITED R 368 Fire Investigation (3 cr)
5. PTE 443 Introduction to Special-Needs Education (1 cr)
6. PTE 512 Classroom Management and Student Motivation (2 cr)
7. PTE 564 Special Needs Communication Skills (3 cr)

BIOLOGICAL & AGRICULTURAL ENGINEERING

1. Change credits of: **BAE 478 Engineering Design I** (+2 cr). [*Effective: Summer 2003*]

CHEMISTRY

1. Change number and description of: **Chem ~~J318/J418~~J518 Environmental Chemistry** (3 cr). Chemistry of atmosphere, soil, and water; pollution monitoring and remediation; treatment of waste in the environment. [Registration for Chem 418 requires additional project](#) [Additional projects/assignments required for grad cr](#). Prereq: Chem 253, and Chem 275 or 277, or perm. (Spring only) [*Effective: Summer 2003*]

CIVIL ENGINEERING

1. Delete cooperative listing with WSU and change credits of: **Engr ~~ID&WS360~~ Engineering Economy** (~~3~~2 cr). [WSU CE 463](#). Economic analysis and comparison of engineering alternatives. Prereq: Jr standing. [*Effective: Summer 2003*]
2. Change curricular requirements of: **CIVIL ENGINEERING (B.S.C.E.)** [*Effective: Summer 2003*]
Required course work includes the university requirements (see regulation J-3) and:
 - CE 115 Introduction to Civil Engineering (2 cr) . . .
 - CE 491 Civil Engineering Professional Seminar (1 cr)
 - [CE 493-494 Senior Design Project \(4 cr\)](#)
 - Chem 111-~~112~~ Principles of Chemistry I-~~II~~ (~~9~~4 cr)
 - Engr 105 Engineering Graphics (2 cr) . . .
 - Engr 360 Engineering Economy (~~3~~2 cr)
 - Engl 317 Technical Writing (3 cr)
 - ~~One~~ Two of the following (~~3-5~~ 8-10 cr):

Biol 112 Biological Principles and Mechanisms

[Chem 112 Principles of Chemistry II](#)

Chem 302/303 Principles of Physical Chemistry & Lab

Geol 111 Physical Geology for Science Majors

MMBB 250 General Microbiology

Math 170, 175, 275 Analytic Geometry and Calculus (11 cr) . . .

Humanities and social sciences electives, ~~incl at least (1) one upper division course that is the second course completed in that subject or (2) a course that has another humanities/social science course as a prerequisite to satisfy UI core requirements. Must include AmSt 301 or Phil 103, and Econ 201, 202, or 272. In addition to core requirements listed in J-3, students must take additional humanities/social science courses to reach 17 credits.~~ (16 17 cr)

Technical electives (~~incl at least 9 cr from CE 421, 422, 432, 441 or 444, 460, 473, 474, 475).~~ [To ensure sufficient breadth, technical electives must include at least 9 cr from CE 421, 422, 431, 432, 441 or 444, 460, 473, 474, 475. Technical electives taken for breadth must be in at least two disciplines \(i.e. 42x, 43x, 44x, 46x, or 47x\).](#) (~~15~~ 12 cr)

~~Technical electives from other engineering and science disciplines may be taken with permission. The student must demonstrate how the intended course is required to meet specific career objectives.~~

The minimum number of credits for the degree is ~~129~~ 128, ~~not counting Engl 101, Math 143, and other courses that might be required~~ [excluding math below 170, English below 102, and any classes needed](#) to remove deficiencies.

FAMILY & CONSUMER SCIENCES

1. Add course: **FCS 469 Individualized Assessment and Instruction in the FCS Classroom** (2 cr). Capstone course in which the beginning teacher demonstrates understanding of how students differ in their approaches to learning, and is able to create instructional opportunities that are adapted to diverse learners. Coreq: FCS 470 and 471. (*Effective: Summer 2003*)
2. Change curricular requirements of: **B.S.F.C.S. Child, Family, and Consumer Studies** (*Effective: Summer 2003*)

C. FAMILY AND CONSUMER SCIENCES EDUCATION OPTION

Two of the following courses (6 cr):

FCS 123 Textiles (3)

FCS 223 Evaluation of Apparel and Textiles (3 cr)

FCS 224 Apparel Design I (3 cr)

FCS 419 Dress and Culture (3 cr)

FCS 105 Individual and Family Development (3 cr) . . .

FCS 234 Infancy and Early Childhood [or FCS 334 Middle Childhood-Adolescence](#) (3 cr)

[FCS 251 Survey of FCS Professions \(1 cr\)](#)

FCS 270 Intermediate Foods (3 cr)

FCS 346 Personal and Family Finance and Management (4 cr)

FCS 350 Curriculum Development in Family and Consumer Sciences Ed (3 cr)

FCS 428 Housing America's Families (3 cr)

FCS 440 Contemporary Family Relationships (3 cr)

FCS 448 Consumer Economic Issues (3 cr)

~~FCS 451 Professional Development (3 cr)~~

FCS 471 [Student Teaching Internship](#) in Family and Consumer Sciences Ed (~~10~~ 12 cr)

[FCS 469 Individualized Assessment and Instruction in the FCS Classroom \(2 cr\)](#)

[FCS 470 Curriculum Portfolio in FCS Education \(2 cr\)](#)

~~ACTE 444 Diverse Populations and Individual Differences (2 cr)~~

ACTE 445 Proseminar in Professional-Technical Education (2 cr) . . .

3. Change curricular requirements of: **B.S.F.C.S. Food and Nutrition** (*Effective: Summer 2003*)

A. COORDINATED PROGRAM IN DIETETICS

FCS 105 Individual and Family Development (3 cr) . . .
FCS 384 Quantity Food Production and Equipment (~~5~~ 3 cr)
[FCS 385 Quantity Food Production Lab \(2 cr\)](#)
FCS 387 Food Systems Management (3 cr)
[FCS 388 Food Systems Management Lab \(1 cr\)](#)
FCS 405 Eating Disorders (2 cr) . . .
[Bus 311 Introduction to Management \(3 cr\)](#)
Chem 101 Intro to Chemistry I or Chem 111 Prin of Chemistry I (4 cr) . . .

MATERIALS, METALLURGICAL, MINING & GEOLOGICAL ENGINEERING

1. Move the following courses to dormant status [*Effective: Summer 2002*]:
- **Met J419/J519 A World History of Mining, Metals, and Materials** (3 cr). See Geol J419/J519.
 - **Min J419/J519 A World History of Mining, Metals, and Materials** (3 cr). See Geol J419/J519.

MATHEMATICS

1. Add course: **Math 301 Early Childhood Mathematics I** (3 cr). Developmentally appropriate mathematics for early childhood: numbers and operations, algebraic thinking, and probability with an emphasis on reasoning, communication, connections, and representation. Prereq: One core math course. Recommended preparation: Stat 150. (Fall Only) [*Effective: Fall 2003*]
2. Add course: **Math 302 Early Childhood Mathematics II** (3 cr). Developmentally appropriate mathematics for early childhood: geometry, measurement and statistics with an emphasis on reasoning, communication, connections, and representation. Prereq: Math 301. (Spring Only) [*Effective: Spring 2003*]

MECHANICAL ENGINEERING

1. Change prereqs of: **ME 223 Mechanical Design Analysis** (3 cr). Prereq: ~~Engr 105~~ and ME 123. Coreq: Math 175. [*Effective: Summer 2003*]
2. Change course description of: **ME 262 Sophomore Laboratory** (3 cr). ~~Materials foundation of mechanics~~ [Foundation of experimental methods](#); testing of structures [and engineering systems](#) subject to [axial, torsion, and bending](#) [various](#) loads ~~as well as thin walled pressure vessels~~; use of computers for data reduction and analysis; development of [visualization skills and](#) engineering record keeping skills. ~~One~~ [Two](#) lec and 2 hrs of lab a wk. Prereq: Engr 210. Coreq: ME 223. [*Effective: Summer 2003*]
3. Change title, description, and prereqs of: **ME 301 ~~Advanced Engineering Graphics~~ Computer Aided Design Methods** (3 cr). Two and three dimensional graphics ~~applications including geometric dimensioning and tolerancing (GDT)~~; use of solid modeling software in engineering design ([CAD](#)); ~~integration of computer-aided design, finite element analysis (FEA), and manufacturing (CAM)~~. Prereq: ME 223, and Engr 105 ~~or ME 262~~. [*Effective: Summer 2003*]
4. Add course: **ME 325 Machine Component Design I** (3 cr). Study of stress, deflection and stiffness, material properties, static and fatigue failure theory in the context of the analysis and design of machine components such as fasteners, welds, spring design and bearings. Prereq: Engr 350 and ME 261. [*Effective: Spring 2003*]
5. Change course number and description of: **ME ~~341~~ 441 Intermediate Mechanics of Materials** (3 cr). Mechanics of materials approach to three dimensional stress and strain, plates, curved beams, pressure vessels, non-circular torsion and unsymmetrical ending; introduction to elementary energy methods and advanced [strength theories](#) [analysis methods](#). Prereq: Engr 350. [*Effective: Summer 2003*]

6. Change title, description, and prereqs of: **ME 425 Machine Component Design II** (3 cr). [Design of machine components in context of Emphasis on](#) material selection, machineability, joining, materials strengthening and surface treatment; design using metals, non metals and composite materials for strength, fatigue, creep and corrosion resistance; other topics include lubrication theory, ~~bearing selection, fasteners and spring design;~~ [discussions](#) of case studies [and detailed design project involving machine component elements](#). Prereq: ~~ME 261, 324, and 341~~ [325](#). [*Effective: Summer 2003*]

7. Drop course the following courses [*Effective: Summer 2003*]:
 - **ME 427 Computer Aided Design** (3 cr).
 - **ME J476/J576 Automation, Robotics, and Computer Integrated Manufacturing** (3 cr).

8. Change prereqs/coreqs of the following courses [*Effective: Summer 2003*]:
 - **ME 424 Mechanical Systems Design I** (3 cr). Prereq: ME 301, 323, ~~324, 341,~~ [325](#), 345, and ~~Engr 335~~ [Certification](#). Coreq: [ME 330](#).
 - **ME 426 Mechanical Systems Design II** (3 cr). Prereq: ~~AmSt 301; Econ 201, 202, or 272; and~~ ME ~~313,~~ 330, ~~and~~ 424, ~~425, and~~ [435](#).
 - **ME ID463 Mechanics of Materials Processing** (3 cr). WSU M E 453. Same as MSE 463. Prereq: ME ~~341 and~~ 345, ~~and~~ [Engr 350 or equiv](#).
 - **ME 473 Experimental Stress Analysis** (3 cr). Prereq: ~~ME 341~~ [Engr 350 or equiv](#).
 - **ME 541 Mechanical Engineering Analysis** (3 cr). Prereq: ME 345, ~~ME 341~~ [Engr 350](#) or equiv.
 - **ME ID&WS534 Mechanics of Composite Materials** (3 cr). WSU M E 534. Same as MSE 536. Prereq: ME ~~341 and~~ [441](#) or CE 342.
 - **ME 539 Advanced Mechanics of Materials** (3 cr). Same as CE 510 and MSE 539. Prereq: ME ~~341~~ [441](#) or CE 342.
 - **ME 548 Elasticity** (3 cr). Same as CE 548. Prereq: ME ~~341~~ [441](#) or CE 342.

9. Add course: **ME 573 Acoustic Waves in Elastic Solids** (3 cr). Wave propagation in elastic solids; isotropic, anisotropic and piezoelectric materials; bulk, bar, plate (Lamb) and surface (Rayleigh) waves; reflection from interfaces; layered media; point sources; fluid-structure coupling. Applications to NonDestructive Testing (NDT), piezoelectric transducer design. Prereq: ME 413/513 or perm. [*Effective: Spring 2003*]

10. Change curricular requirements of: **Mechanical Engineering (B.S.M.E.)** [*Effective: Summer 2003*]
 Required course work includes the university requirements (see regulation J-3) and:
 - ME 123 Introduction to Mechanical Design (3 cr) . . .
 - [ME 325 Machine Component Design I \(3 cr\)](#)
 - ME 330 Experimental Methods for Engineers (3 cr)
 - ~~ME 341 Intermediate Mechanics of Materials (3 cr)~~
 - ME 345 Heat Transfer (3 cr)
 - ME 424 Mechanical Systems Design I (3 cr)
 - ~~ME 425 Machine Component Design (3 cr)~~
 - ME 426 Mechanical Systems Design II (3 cr)
 - ME 430 Senior Laboratory (3 cr)
 - ME 435 Thermal Energy Systems Design (3 cr)
 - Chem 111 Principles of Chemistry I (4 cr)
 - CE 411 Engineering Fundamentals (1 cr)
 - [Comm 101 Fundamentals of Public Speaking \(2 cr\)](#)
 - ~~Engr 105 Engineering Graphics (2 cr)~~
 - Engr 210 Engineering Statics (3 cr) . . .
 - Humanities and social sciences electives, incl AmSt 301 or Phil 103, and Econ 201 or 202 or 272 ([Students who take Core 101 Core Discovery: Social Transformations/Market Myths, are not required to take AmSt 301 or Phil 103](#)) (14 cr)
 - Technical electives selected from ME 304, ~~409,~~ 410, 412, 413, ~~414, 417,~~ 420, 422, ~~427~~ [425](#), 433, ~~441,~~ 443, 444, 451, 461, 463, 472, 473, ~~476,~~ 481 (9 cr) *
 - [Mechanics or materials science technical elective selected from ME 425, 441, 461, 463, 473 \(3 cr\)](#)

The minimum number of credits for the degree is 128, not counting . . .

Students majoring in mechanical engineering must earn a grade of C or better in each specified lower-division course before registration is permitted in upper-division mechanical engineering courses. The specific lower-division courses are: Chem 111, [Comm 101](#), Engr ~~405~~, 210, 220, and 240, Engl 102, Math 170, 175, 275, and 310, ME 123, 223, 261, and 262, Phys 211, 212, and 213. In addition, a grade higher than C must be earned in at least five of these courses. A grade of P (pass) in any of these courses is considered as a C grade in satisfying this certification requirement.

11. Change curricular requirements of: **Mechanical Engineering Minor** [Effective: Summer 2003]

ME 123 Introduction to Mechanical Design (3 cr)

ME 223 Mechanical Design Analysis (3 cr)

Engr 105 Engineering Graphics (2 cr) [or ME 262 Sophomore Laboratory \(3 cr\)](#)

Engr 210 Engineering Statics (3 cr)

Engr 220 Engineering Dynamics (3 cr)

Courses selected from the following (including at least 6 cr from ME courses) (9 cr): . . .

~~[ME 341 Intermediate Mechanics of Materials](#)~~

[ME 325 Machine Component Design I \(3 cr\)](#)

PHYSICS

1. Change credit and description of: **Phys 301 Junior Physics Lab** (~~4~~ 2 cr). Experimental techniques in modern physics, including optics, atomic, nuclear, and solid state physics; computer uses, error analysis, [and scientific](#) literature searches. One [1-hr lecture and one](#) 3-hr lab per wk. Prereq: Phys 213 or perm. (Spring only) [Effective: Summer 2003]

WWAMI MEDICAL EDUCATION PROGRAM

1. Add course: **MedS ID&WS590 Critical Reading of the Medical Literature** (1 cr). WSU Med S 590. An examination of medical literature for the purpose of primary research, diagnosis, and therapeutic and preventative intervention. [Effective: Spring 2003]

FOR THE FACULTY'S INFORMATION

Correction to General Curriculum Report 219:

The effective term to add **Biol 407 Practicum in Biology Laboratory Teaching** (4-6 cr) was listed incorrectly in General Curriculum Report 219. This course will be made effective Fall 2002, not Spring 2003.

The following are changes to cooperative courses that have been approved since the last general curriculum report:

(ID = taught at UI only, WS = taught at WSU only, ID&WS = can be taught at both UI & WSU)

1. Drop course: **Ent WS512 Survey of Biological Control Agents** (2 cr). WSU Entom 512. [Effective: Fall 2002]
2. Add course: **Geol WS563 Igneous Petrogenesis** (3 cr). WSU Geol 563. [Effective: Spring 2003]
3. Add course: **Geol WS584 Stable Isotope Geochemistry** (3 cr). WSU Geol 584. [Effective: Spring 2003]
4. Add course: **Hydr WS571 (s) Advanced Topics in Hydrogeology** (1-4 cr, max 9). WSU Geol 570. [Effective: Spring 2003]