

# Minutes of the Institute Undergraduate Curriculum

## Committee Meeting

7 September 2005

**PRESENT:** Byars (MGT), Rudolph (ARCH), Bottomley (CHEM), Tone (IAC), Stasko (CoC), Webster (CEE), Benkeser (BME), Williams (ECE), Parsons (MGT), Kohl (ChBE), Ferri (ME), Pikowsky (Registrar)

**Visitors:** Bradd (Registrar), Griffin (ISyE)

1. Administrative, Approval, and Informational items.

Administrative item: A motion was made to approve the minutes of the August 22, 24, and 29 2005 meetings. The motion was seconded and approved. Unanimous.

Approval Item: A motion was made to grant the chair, the vice chair, and the registrar the authority to act on urgent petitions in between the meeting cycles as necessary and only when a decision can be reasonably made without the full committee. The motion was seconded and approved. Unanimous.

Informational item: prerequisite changes in ECE program. The Chair referred the committee to the e-mail communication in the packet.

Informational item: prerequisite changes in Physics program. The Chair referred the committee to the e-mail communication in the packet.

2. A motion was made to approve the request from the School of Management for new courses. The motion was seconded and approved. Unanimous.

MGT 3103 Leadership in a Changing Environment 3-0-3

MGT 4304 Strategic Brand Management 3-0-3

MGT 4332 Database and CRM Strategy 3-0-3

3. A motion was made to approve the request from the School of Physics for a new course. The motion was seconded and approved with the condition that the registrar confirm that, if Optics is taught at other system schools, the course number (level) is

equivalent to avoid any issues with transfer credit or that if this course is require to carry a system-wide number that then number be corrected as appropriate. Unanimous.

PHYS 3232 Optics I 3-0-3

4. A motion was made to approve the request from the School of ISyE to change requirements for the BS degree in Industrial and Systems Engineering. The motion was seconded and approved. Unanimous.

Move the following ISyE courses from required to elective: ISyE 3039 (Quality Improvement), ISyE 3103 (Supply Chain Logistics), ISyE 3104 (Manufacturing & Warehousing), ISyE 4009 (Human-integrated Systems)

Change the course number of ISyE 4231 (Engineering Optimization) to ISyE 3131.

### **New Course**

**ISyE 3131 Engineering Optimization 3-0-3**

### **INACTIVATE**

**ISyE 4231**

Adopt the following elective structure:

#### **Requirements:**

(a) Complete 6 courses (18 hours) at the 3000 level or higher from the track elective lists below, at least 4 must be from engineering

(b) *Breadth:* Complete at least 3 ISyE **core** electives (defined in bold) from at least 3 tracks

(c) *Depth:* Satisfy the requirements of at least one track

#### **Tracks:**

(a) General Industrial and Systems Engineering

Complete four courses from the following list:

(i) ISyE 3103 (Supply Chain Logistics)

(ii) ISyE 3104 (Manufacturing Systems)

(iii) ISyE 3039 (Statistical Methods for QC) -ORISyE 4803 (Advanced Regression and Forecasting)

(iv) ISyE 4803 (Economics and Sup. Chains) -ORISyE 4803 (Advanced Eng. Economy)

- (v) ISyE 4803 (Advanced Optimization) -ORISyE  
4803 (Advanced Stochastics) –ORISyE  
4803 (Advanced Simulation)
  - (vi) ISyE 4009 (Human-Integrated Systems) -ORISyE  
4803 (Human-Computer Interaction)
- Complete at least one additional ISyE-numbered elective from the track lists (b)-(g).
- (b) Economic Decision Analysis

Complete both core electives:

(i) **ISyE 4803 (Economics and Sup. Chains)** Prq: ISyE 3232,4231

(ii) **ISyE 4803 (Advanced Eng. Economy)** Prq: ISyE 3232,4231

Complete one additional track elective from the following list:

(vii) Econ 3150 (Econ. & Financial Modeling) Prq: Econ 2100

(viii) Mgmt 3078 (Finance and Investments) Prq:

(ix) Mgmt 3084 (Derivative Securities) Prq: **Mgmt 3078**

**Add MGMT 3078 as Prerequisite for MGMT 3084**

(x) Mgmt 4070 (International Finance) Prq: **Mgmt 3078**

**Add MGMT 3078 as Prerequisite for MGMT 4070**

(xi) Econ 4340 (Industrial Organization) Prq: Econ 2100

(xii) Econ 4350 (International Economics) Prq: Econ 2100

(c) Supply Chain Logistics

Complete the core elective:

(i) **ISyE 3103 (Supply Chain Logistics)** Prq: ISyE 2028, 4231

Complete two additional track electives from the following list:

(ii) *ISyE 4803 (Advanced SC Logistics)* Prq: *ISyE 3103*

(iii) ISyE 3104 (Manufacturing) Prq: ISyE 2028, 3232, 4231

(iv) Mgmt 4360 (Global Ops & Supply Chain) Prq: Mgmt 3501

(v) Econ 4430 (Transportation Economics) Prq: Econ 2100

(vi) CEE 4600 (Transport Planning & Design) Prq: **CEE 3000, 2010**

**Add CEE 3000 and CE 2010 as Prerequisites for CEE 4600**

(vii) CEE 4610 (Multimodal Transport) Prq: **CEE 4600**

### **Add CEE 4600 as a Prerequisite for CEE 4610**

(d) Manufacturing Systems

Complete the core elective:

(i) **ISyE 3104 (Manufacturing)** Prq: ISyE 2028, 3232, 4231

Prerequisites required by ISyE are in regular type; additional courses are listed in bold type.

Complete two additional track electives from the following list:

(ii) *ISyE 4803 (Advanced Manufacturing)* Prq: *ISyE 3104*

(iii) ISyE 3039 (Statistical Methods for QC) Prq: ISyE 2028

(iv) ME 4171 (Environ. Conscious Des & Mfg)

(v) ME 4172 (Sustainable Eng'g Systems)

(vi) ME 4210 (Mfg. Processes and Eng'g) Prq: **ME 3345; Math 2403**

### **Add ME 3345 and Math 2403 as Prerequisites for ME 4210**

(vii) ECE 4761 (Industrial Controls & Mfg) Prq: **ECE 3710**; Phys 2212

### **Add ECE 3710 as Prerequisite for ECE 4761**

(e) Human Integrated Systems

Complete both core electives:

(i) **ISyE 4009 (Human-Integrated Systems)** Prq: ISyE 2028; CS 1322

(ii) **ISyE 4803 (Human-Computer Interact.)** Prq: ISyE 2028; CS 1322

Complete one additional track electives from the following list:

(i) ISyE 3039 Quality Improvement Prq: ISyE 2028

(ii) CS 4750 HCI Design and Evaluation

(iii) PSYC 3790 Introduction to Cog Psych Prq: ISyE 2028

(f) Operations Research and Statistics

Complete at least one core elective:

(i) *ISyE 4803 (Advanced Optimization)* Prq: *ISyE 4231*

(ii) *ISyE 4803 (Advanced Stochastics)* Prq: *ISyE 3232*

(iii) *ISyE 4803 (Advanced Simulation)* Prq: *ISyE 3044*

(iv) *ISyE 4803 (Advanced Statistics)* Prq: *ISyE 2028*

Complete two additional track electives from the following list:

(v) *ISyE 4803 (Advanced Optimization)* Prq: *ISyE 4231*

- (vi) *ISyE 4803 (Advanced Stochastics)* Prq: *ISyE 3232*
- (vii) *ISyE 4803 (Advanced Statistics)* Prq: *ISyE 2028*
- (viii) *ISyE 4803 (Advanced Simulation)* Prq: *ISyE 3044*
- (ix) *Math 3012 (Applied Combinatorics)* Prq: *Math 1502*

(x) *Math 4022 (Graph Theory)* Prq: **Math 3012**

**Add Math 3012 as prerequisite for Math 4022**

(i) *Math 4305 (Linear Algebra)* Prq: *Math 1502*

(xi) *Math 4360 (Real Analysis)* Prq: **Math 2406**

**Add Math 2406 as Prerequisite for Math 4360**

(g) *Quality Engineering*

Complete both core electives:

(i) **ISyE 3039 (Statistical Methods for QC)** Prq: *ISyE 2028*

(ii) *ISyE 4803 (Advanced Regression and Forecasting)*

Prq: *ISyE 2028*

Complete one additional track elective from the following list:

(i) *ISyE 3104 (Manufacturing)* Prq: *ISyE 2028, 3232, 4231*

(ii) *ISyE 3103 (Supply Chain Logistics)* Prq: *ISyE 2028, 4231*

(iii) *MGT 3501 (Operations Management)* Prq: *MGT 2251*

*ISyE Undergraduate Curriculum Committee*

5. A motion was made to table the discussion of whether Undergraduate Research courses (2698/2969/4698/4699) can be used for a minor until the registrar's office can provide current requirements for the minor and get some feedback from schools on their current practices. The registrar will present a report at the next meeting.

Adjourned,

Reta Pikowsky

Registrar

11/3/2005 9:33 AM