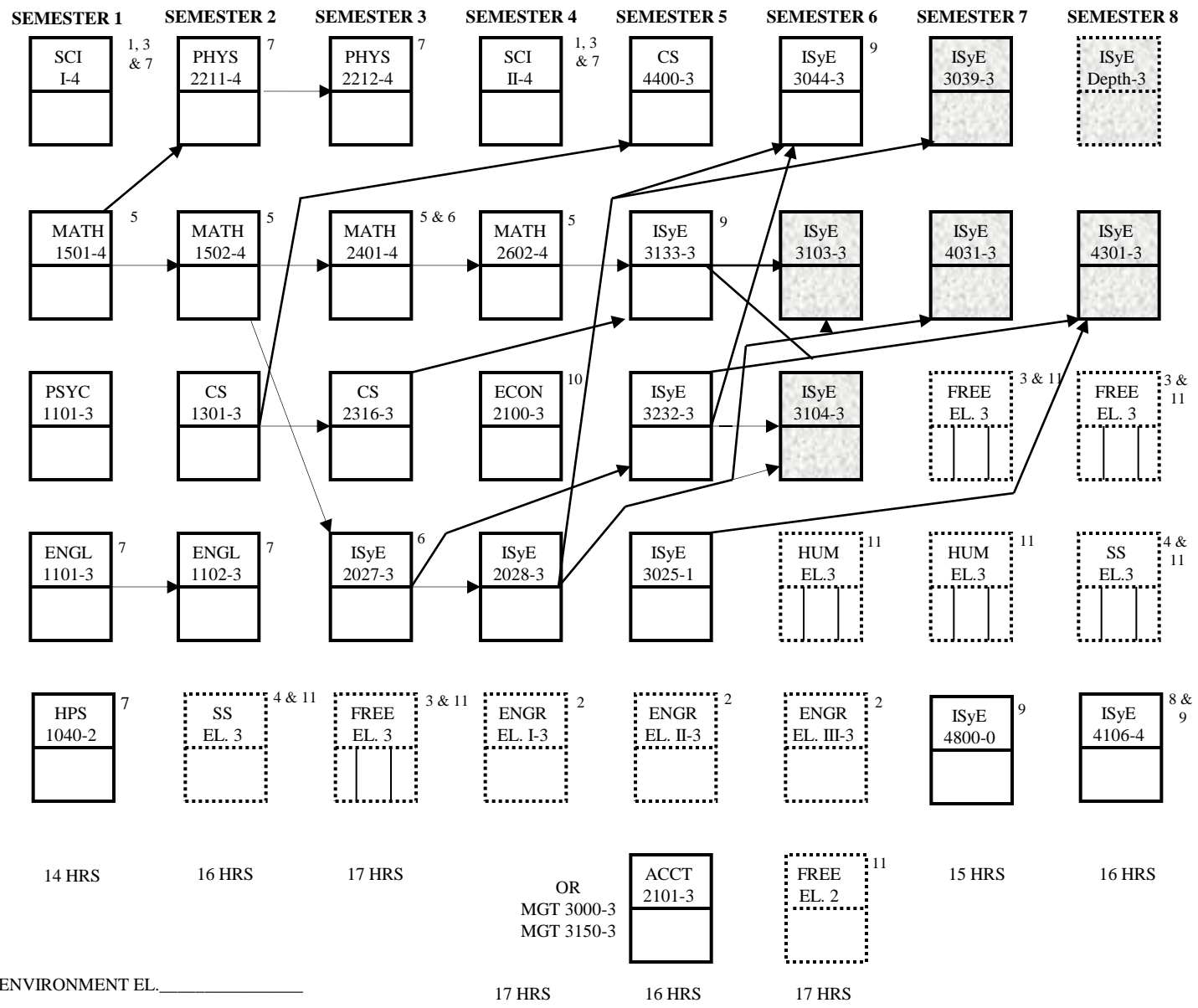


GENERAL ISyE TRACK

BSIE PROGRAM for the 2011-2012 Year



- (1) Science Electives: **Chemistry** 1310, Biology 1510 or 1520, EAS 1600 or 1601 or 2600. Only allowed one EAS course.
 - (2) 9 hours Engineering Electives (Non-ISyE) are required from approved list: <http://www.isye.gatech.edu/academics/undergraduate/courses/>
 - (3) Science or Free Electives must include a course on the environment: <http://www.isye.gatech.edu/academics/undergraduate/courses/>
 - (4) One of SS Electives must be HIST 2111 or 2112, POL 1101, INTA 1200 or PUBP 3000. Credit is not given for both POL 1101 & INTA 1200.
 - (5) D's in Math must be repeated the term after the D is made.
 - (6) MATH 2401 is Co-requisite or Pre-requisite with ISyE 2027.
 - (7) HPS, English, Lab Sciences and Physics must be taken prior to your Junior year.
 - (8) You must be within 2 semesters of graduation to register for Senior Design. (Summers Excluded) You must complete 4 of 6 Track courses before Senior Design.
 - (9) ISyE 3133, 3044 & 4800 must be completed prior to Senior Design.
 - (10) ECON 2100 or 2101, or 2105 or 2106 (Credit cannot be allowed for both ECON 2100 and 2101, and either 2105 or 2106)
 - (11) Only 9* hours allowed Pass/Fail within Social Sciences, Humanities and Free Electives. No other courses allowed Pass/Fail. *<http://www.catalog.gatech.edu/genregulations/passfail.php>
- ISYE CORE DEPTH: Choose **ONE** course from the following list:
 4111 – Adv. Supply Chain Logistics
 4133 – Adv Optimization
 4803 – Adv. Manufacturing
 4232 – Adv. Stochastics
 4803 – Adv. Simulation
 4311 – Capital Investment Analysis

Track Name	Required track core [DEPTH]	Required ISyE electives [BREADTH]
(A) Supply Chain Engineering	A1. 3103 Logistics A2. 3104 Manufacturing A3. One of a. 4111 Adv Logistics* b. 4803 Adv Manufacturing*	Three courses taken from the core of at least two of tracks (B), (C), and (D).
(B) Quality and Statistics	B1. 3039 Quality Control B2. 4031 Regression & Forecasting B3. CS/ISyE 4245* or Math 4262*	Three courses taken from the core of at least two of tracks (A), (C), and (D).
(C) Economic and Financial Systems	C1. 4301 Supply Chain Economics C2. 4311 Capital Investment Ana C3. One of a. Econ 3150 Econ & Fin Mod b. Mgt 3078 Fin & Investments c. Econ 4340 Ind Org d. Econ 4350 Intl Econ	Three courses taken from the core of at least two of tracks (A), (B), and (D).
(D) Operations Research	D1. 4133 Adv Optimization* D2. 4803 Adv Simulation* D3. 4232 Adv Stochastic Process*	Three courses taken from the core of at least two of tracks (A), (B), and (C).
(E) General ISyE	One of a. 4111 Adv Logistics* b. 4803 Adv Manufacturing* d. 4133 Adv Optimization* e. 4803 Adv Simulation* f. 4232 Adv Stochastic Process* g. 4311 Capital Investment Analysis	E1. 3103 Logistics E2. 3104 Manufacturing E3. 3039 Quality Control E4. 4031 Reg & Forecast* E5. 4301 Supply Chain Economics

ISyE Core Requirements (all tracks)

ISyE 2027 Probability ISyE 3044 Simulation
ISyE 2028 Statistics ISyE 3133 Eng Optimization
ISyE 3025 Eng Economy ISyE 3232 Stoch Mfg & Svc Sys

Recommended Free Electives for Pre-PhD Students

Math 4305 Linear Algebra Math 4360 Real Analysis (restricted to math)

* Students with a 3.0 GPA or above may substitute Master's level courses for these. Allowable substitutions are: ISyE 6203 for Advanced Logistics, ISyE 6201 or ISyE 6202 for Advanced Manufacturing, ISyE 6669 for Advanced Optimization, ISyE 6644 for Advanced Simulation, ISyE 6650 for Advanced Stochastics, ISyE 6225 for Advanced EDA, and ISyE 6414 for Regression and Forecasting. Math 3012 Applied Combinatorics as the third OR track depth class. The Associate Chair for Undergraduate Programs may allow additional substitutions as appropriate.

** 4803 General Elective refers to any special topics course that doesn't satisfy a track core requirement. Upon Associ Chair's recommendation, the UCC may allow a special 4803 offering to substitute for a track's depth or breadth requirement as appropriate.

ISyE 4009 Human-Integrated system can be used as an elective as a breadth in any tracks. We do not offer the course but students can take the course elsewhere to transfer back.