2014-15 Degree Curricula Flow Charts
About the Flow Charts

The flow chart for your degree curriculum is a tool to help you visualize the timing of and the relationships between the many courses you will have to take to satisfy the requirements for your degree. The flow charts show the following information.

- required courses for your degree
- the semester in which you should take those courses, as shown on your degree curriculum
- prerequisites and corequisites for the courses in your degree

The flow charts are not a substitute for reading your degree curriculum and the course descriptions. Some information, like required minimum grades for prerequisites, the terms in which courses are typically offered, and prerequisites that are not courses (for example, junior standing) are not shown on the flow charts. When in doubt, always refer to your degree curricula and the course descriptions, and do not hesitate to ask for help from your advisor, your department chair, or the academic dean.
MATH 080 and MATH 090 are remedial mathematics courses. They are usually not formal requirements for your degree, but you may have to take one or both of these courses depending on your math placement exam results.

A dashed black arrow indicates that the first course is a corequisite for the second (here, MATH 101 is a corequisite for CHEM 212). A corequisite is defined as a course that can either be completed prior to or be taken in the same semester as another course.

A yellow box represents a requirement for your degree.

A red arrow indicates that the first course is a prerequisite for the second, and that the prerequisite must be completed with a required minimum grade beyond a passing grade. (Here, a C- or better in MATH 101 is a prerequisite for MATH 102.) Check the course catalog when you see a red arrow to find out the required minimum grade.

A solid black arrow indicates that the first course is a prerequisite for the second (here, CHEM 121 is a prerequisite for CHEM 212). A prerequisite is defined as a course that must be completed with a required minimum grade (passing grade, unless otherwise specified) prior to taking another course.
B.E. Facilities Engineering – Engine License Flow Chart for Students Entering in Fall 2014

- Fall Freshman and Before
  - CHEM 122
  - PS 112
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Spring Freshman
  - CHEM 122
  - PS 112
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Summer Soph.
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Fall Sophomore
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Spring Sophomore
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Summer Junior
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Fall Junior
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Spring Junior
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Summer Senior
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Fall Senior
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121

- Spring Senior
  - ENGR 100
  - ENGR 101
  - MATH 101
  - MATH 102
  - PHYS 102
  - CHEM 121
# B.E. Mechanical Engineering - Intern Option Flow Chart for Students Entering in Fall 2014

<table>
<thead>
<tr>
<th>Fall Freshman and Before</th>
<th>Spring Freshman</th>
<th>Summer Soph.</th>
<th>Fall Sophomore</th>
<th>Spring Sophomore</th>
<th>Summer Junior</th>
<th>Fall Junior</th>
<th>Spring Junior</th>
<th>Summer Senior</th>
<th>Fall Senior</th>
<th>Spring Senior</th>
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</thead>
<tbody>
<tr>
<td>Lead 101</td>
<td>ENGL 103</td>
<td>ENGR 510</td>
<td>ENGR 540</td>
<td>HUMN 202</td>
<td>ENGR 290</td>
<td>ENGR 347</td>
<td>ENGR 349</td>
<td>ENGR 451</td>
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</tr>
<tr>
<td>MATH 080</td>
<td>PHYS 102</td>
<td>PHYS 201</td>
<td>PHYS 202</td>
<td>ENGR 242</td>
<td>ENGR 244</td>
<td>ENGR 344</td>
<td>ENGR 364</td>
<td>ENGR 454</td>
<td>ENGR 418</td>
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<tr>
<td>MATH 102</td>
<td>ENGR 200</td>
<td>ENGR 242</td>
<td>ENGR 244</td>
<td>ENGR 344</td>
<td>ENGR 341</td>
<td>ENGR 345</td>
<td>ENGR 354</td>
<td>Appl. Eng.</td>
<td>ENGR 419</td>
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</tr>
<tr>
<td>CHEM 121</td>
<td>PHYS 102</td>
<td>MATH 211</td>
<td>MATH 212</td>
<td>ENGR 300</td>
<td>ENGR 345</td>
<td>ENGR 354</td>
<td>ENGR 418</td>
<td>Appl. Eng.</td>
<td>ENGR 419</td>
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</tr>
<tr>
<td>CHEM 122</td>
<td>MATH 102</td>
<td>ENGR 200</td>
<td>ENGR 200</td>
<td>ENGR 200</td>
<td>ENGR 354</td>
<td>ENGR 418</td>
<td>ENGR 419</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Fall Freshman and Before**
  - MATH 080
  - Lead 101

- **Spring Freshman**
  - MATH 101
  - ENGR 110
  - ME 101
  - ENGR 340

- **Summer Soph.**
  - ENGL 103
  - HUMN 201

- **Fall Sophomore**
  - PHYS 102
  - ENGR 200

- **Spring Sophomore**
  - ENGR 242
  - MATH 211

- **Summer Junior**
  - PHYS 202
  - ENGR 244

- **Fall Junior**
  - ENGR 344

- **Spring Junior**
  - ENGR 341

- **Summer Senior**
  - ENGR 354

- **Fall Senior**
  - ENGR 349

- **Spring Senior**
  - ENGR 419

- **Required Courses**
  - ENGR 312
  - ENGR 314
  - ENGR 315
  - ENGR 316
  - ENGR 320
  - ENGR 325
  - ENGR 330
  - ENGR 335
  - ENGR 340
  - ENGR 341
  - ENGR 342
  - ENGR 343
  - ENGR 344
  - ENGR 345
  - ENGR 346
  - ENGR 347
  - ENGR 348
  - ENGR 349
  - ENGR 350
  - ENGR 351
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  - ENGR 353
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  - ENGR 421
  - ENGR 422
  - ENGR 423
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  - ENGR 429
  - ENGR 430
  - ENGR 431
  - ENGR 432
  - ENGR 433
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  - ENGR 438
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  - ENGR 457
  - ENGR 458
  - ENGR 459
  - ENGR 460
  - ENGR 461
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  - ENGR 473
  - ENGR 474
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  - ENGR 489
  - ENGR 490
  - ENGR 491
  - ENGR 492
  - ENGR 493
  - ENGR 494
  - ENGR 495
  - ENGR 496
  - ENGR 497
  - ENGR 498
  - ENGR 499

- **Electives**
  - MATH 080
  - MATH 090

- **Total Credits**
  - 120 credits
## B.S. International Transportation and Trade – Intern Option Flow Chart for Students Entering in Fall 2014

<table>
<thead>
<tr>
<th>Fall Freshman and Before</th>
<th>Spring Freshman</th>
<th>Summer Soph. Fall Sophomore</th>
<th>Spring Sophomore</th>
<th>Summer Junior</th>
<th>Fall Junior</th>
<th>Spring Junior</th>
<th>Summer Senior</th>
<th>Fall Senior</th>
<th>Spring Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen. Ed. Nat. Sci. w/ Lab</td>
<td>MATH 90 or 111*</td>
<td>GBUS 100</td>
<td>GBAC 311</td>
<td>GBLW 431</td>
<td>GBLW 433</td>
<td>GBT 451</td>
<td>GBUS 525 or 526</td>
<td>GBT 457</td>
<td>GBT 453</td>
</tr>
<tr>
<td>CS 100</td>
<td>CS 101</td>
<td>GBMG 345</td>
<td>PE 101</td>
<td>GBAC 315</td>
<td>GBMG 341</td>
<td>GBE 427</td>
<td>Humn/Soc. Sci.</td>
<td>GBUS 300</td>
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</tr>
<tr>
<td>CS 101</td>
<td>ENGL 101</td>
<td>ENGL 102</td>
<td>HIST 102</td>
<td>GBE 121</td>
<td>GBE 122</td>
<td>GBE 424</td>
<td></td>
<td>GBE 428</td>
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</tr>
<tr>
<td>ENGL 101</td>
<td>PS 111</td>
<td>HIST 101</td>
<td>HUMN 201</td>
<td>PE 2xx</td>
<td>HUMN 202</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEAD 101</td>
<td>MATH 080</td>
<td>MATH 90 or 111*</td>
<td>MATH 251</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MATH 446</td>
<td></td>
</tr>
</tbody>
</table>

* The prerequisite for MATH 090 is MATH 080. The prerequisite for MATH 111 is MATH 090.
<table>
<thead>
<tr>
<th>Fall Freshman and Before</th>
<th>Spring Freshman</th>
<th>Summer Soph.</th>
<th>Fall Sophomore</th>
<th>Spring Sophomore</th>
<th>Summer Junior</th>
<th>Fall Junior</th>
<th>Spring Junior</th>
<th>Summer Senior</th>
<th>Fall Senior</th>
<th>Spring Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen. Ed.: Nat. Sci. w/ Lab</td>
<td>GBUS 100</td>
<td>GBUS 300*</td>
<td>GBLW 431</td>
<td>GBAC 311</td>
<td>GBAC 315</td>
<td>GBMG 345</td>
<td>PE 101</td>
<td>GBLW 433*</td>
<td>GBTT 251</td>
<td>GBEC 428</td>
</tr>
<tr>
<td>CS 300</td>
<td>GBMG 345</td>
<td>CS 101</td>
<td>GBEC 121</td>
<td>GBEC 122</td>
<td>GBEC 124</td>
<td>HUMN 202</td>
<td>PE 2xx</td>
<td>GBTT 451</td>
<td>GBEC 427</td>
<td>GBTT 252</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>ENGL 102</td>
<td>HIST 102</td>
<td>HIST 101</td>
<td>ENGL 452</td>
<td>Humn/Soc. Sci.</td>
<td>ENGL 450</td>
<td>ENGL 456</td>
<td>GBTT 351*</td>
<td>GBTT 453*</td>
<td>GBEC 429 or GBMG 440</td>
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<tr>
<td>PS 111</td>
<td>PE 100</td>
<td>MATH 251</td>
<td>MATH 080</td>
<td>MATH 90 or 111**</td>
<td>MATH 251</td>
<td>LEAD 101</td>
<td>MATH 446</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Students will meet with advisor to replace one of these courses by a Business Communication elective.

** The prerequisite for MATH 090 is MATH 080. The prerequisite for MATH 111 is MATH 090.
**B.S. International Transportation and Trade – Intern Option, Minor in Intermodal and Maritime Security Flow Chart for Students Entering in Fall 2014**

<table>
<thead>
<tr>
<th>Fall Freshman and Before</th>
<th>Spring Freshman</th>
<th>Summer Soph</th>
<th>Fall Sophomore</th>
<th>Spring Sophomore</th>
<th>Summer Junior</th>
<th>Fall Junior</th>
<th>Spring Junior</th>
<th>Summer Senior</th>
<th>Fall Senior</th>
<th>Spring Senior</th>
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</thead>
<tbody>
<tr>
<td>Gen. Ed.: Nat. Sci. w/ Lab</td>
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<td>GBUS 100</td>
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<td>CS 100</td>
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<td>ME 201</td>
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<td>CS 101</td>
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<td>ME 202</td>
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<td>ENGL 452</td>
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<td>PS 111</td>
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<tr>
<td>MATH 080</td>
<td>MATH 09 or 111**</td>
<td>MATH 251</td>
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<td>MATH 251</td>
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<td>MT 446</td>
<td></td>
</tr>
</tbody>
</table>

* Students will meet with advisor to replace one of these courses by GBTT 465.

** The prerequisite for MATH 090 is MATH 080. The prerequisite for MATH 111 is MATH 090.
B.S. Maritime Studies – Intern Option Flow Chart for Students Entering in Fall 2014

Fall Freshman and Before  | Spring Freshman | Summer Soph.  | Fall Sophomore | Spring Sophomore | Summer Junior | Fall Junior | Spring Junior | Summer Senior | Fall Senior | Spring Senior
---|---|---|---|---|---|---|---|---|---|---
MATH 90 or 111*  | MATH 251  |  |  |  |  |  |  |  |  |  
|  | CHEM 100  |  |  |  |  |  |  |  |  |  
|  |  | GRTT 251  |  |  |  |  |  |  |  |  
|  |  | GBRG 121  |  |  |  |  |  |  |  |  
|  | LEAD 101  |  |  |  |  |  |  |  |  |  
|  |  |  | CS 101  |  |  |  |  |  |  |  
|  |  |  |  | CS 100  |  |  |  |  |  |  
|  |  |  | PS 111  |  |  |  |  |  |  |  
|  |  |  |  | ENGL 102  |  |  |  |  |  |  
|  |  |  |  |  | HUMN 201  |  |  |  |  |  
|  |  |  |  |  |  |  | ENGL 452  |  |  |  
|  |  |  |  |  |  |  |  | HUMN 465  |  |  
|  |  |  |  |  |  |  |  |  | HUMN 515  |  
|  |  |  |  |  |  |  |  |  |  | Free Elective

Fall Sophomore  | Spring Sophomore | Summer Junior  | Fall Junior  | Spring Junior  | Summer Senior  | Fall Senior  | Spring Senior
---|---|---|---|---|---|---|---
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HUMS 100  |  |  |  |  |  |  |  
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MATH 080  |  |  |  |  |  |  |  
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* The prerequisite for MATH 090 is MATH 080. The prerequisite for MATH 111 is MATH 090.
A.A.S. Marine Technology: Small Vessel Operations - Assistant Engineer Limited License Flow Chart for Students Entering in Fall 2014

<table>
<thead>
<tr>
<th>Fall Freshman and Before</th>
<th>Spring Freshman</th>
<th>Summer Soph.</th>
<th>Fall Sophomore</th>
<th>Spring Sophomore</th>
<th>2nd Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>ENGL 102</td>
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<td>HIST 101</td>
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<td>ENGR 541</td>
<td>PE 411</td>
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<td>MT 250</td>
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<td>MATH 90</td>
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<tr>
<td>MATH 080</td>
<td>MATH 251</td>
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</tr>
</tbody>
</table>

* Science Elective may be CHEM 100 or PHYS 211 with PHYS 213 (lab). The prerequisite for CHEM 100 is MATH 080. The prerequisite for PHYS 211 is MATH 090.