



# Bachelor of Engineering - Students Entering 2017 Fall

## Study Plan / Application for Candidacy (check one)

Stevens Institute of Technology  
 Castle Point on Hudson  
 Hoboken, NJ 07030  
 Office of the Registrar  
 201.216.5210  
 FAX 201.216.8030

(Appropriate for students who intend to apply to medical school)

Name: \_\_\_\_\_ ID: \_\_\_\_\_ Class: \_\_\_\_\_ Box S- \_\_\_\_\_ E-mail: \_\_\_\_\_

Major Concentration Field: Biomedical Engineering Secondary Concentration Field: \_\_\_\_\_

Instructions Please print or type. The primary purpose of this form is to lay out the courses required to complete your degree program and when you expect to take each of them. You may then use it to track your own progress to the degree. You should revise it as needed. Please indicate the term when you expect to take each course (e.g., 2003F, 2004S, etc.). Roman numerals indicate the standard curriculum time schedule. If a choice of courses is given for a requirement, circle the appropriate course number. For electives, fill in the course number. Any courses taken elsewhere should be marked **TR**. An additional study plan will be required if you wish to receive a minor or a second degree.

| Term                  | Course   | Credits | Grade | Term                   | Course   | Credits | Grade |
|-----------------------|--|---------|-------|------------------------|--|---------|-------|
| <b><u>TERM I</u></b>  |  |         |       | <b><u>TERM III</u></b> |  |         |       |
| I                     | _____ CH 115 - General Chemistry I                       | 3.0     | _____ | III                    | _____ E 126 - Mechanics of Solids                      | 4.0     | _____ |
| I                     | _____ CH 117 - General Chemistry Laboratory I            | 1.0     | _____ | III                    | _____ E 231 - Engineering Design III                   | 2.0     | _____ |
| I                     | _____ E 101 - Engineering Experience I                   | 1.0     | _____ | III                    | _____ E 245 - Circuits and Systems                     | 3.0     | _____ |
| I                     | _____ E 115 - Introduction to Programming                | 2.0     | _____ | III                    | _____ MA 221 - Differential Equations                  | 4.0     | _____ |
| I                     | _____ E 120 - Engineering Graphics                       | 1.0     | _____ | III                    | _____ PEP 112 - Electricity and Magnetism              | 3.0     | _____ |
| I                     | _____ E 121 - Engineering Design I                       | 2.0     | _____ | III                    | _____ Humanities <sup>1</sup> _____                    | 3.0     | _____ |
| I                     | _____ MA 121 – Differential Calculus                     | 2.0     | _____ | <b><u>TERM IV</u></b>  |  |         |       |
| I                     | _____ MA 122 – Integral Calculus                         | 2.0     | _____ | IV                     | _____ BME 306 - Introduction to Biomedical Engineering | 3.0     | _____ |
| I                     | _____ CAL 103 - CAL Colloquium                           | 3.0     | _____ | IV                     | _____ BIO 281 - Biology and Biotechnology (no Lab)     | 3.0     | _____ |
| <b><u>TERM II</u></b> |  |         |       | IV                     | _____ E 232 - Engineering Design IV                    | 3.0     | _____ |
| II                    | _____ CH 116 - General Chemistry II                      | 3.0     | _____ | IV                     | _____ E 234 - Introduction to Thermodynamics           | 3.0     | _____ |
| II                    | _____ CH 118 - General Chemistry Laboratory II           | 1.0     | _____ | IV                     | _____ E 344 - Materials Processing                     | 3.0     | _____ |
| II                    | _____ E 122 - Engineering Design II                      | 2.0     | _____ | IV                     | _____ MA 227 - Multivariate Calculus                   | 3.0     | _____ |
| II                    | _____ MA 123 - Series, Vectors and Surfaces              | 2.0     | _____ |                        |  |         |       |
| II                    | _____ MA 124 - Calculus of Two Variables                 | 2.0     | _____ |                        |  |         |       |
| II                    | _____ PEP 111 - Mechanics                                | 3.0     | _____ |                        |  |         |       |
| II                    | _____ MGT 103 - Introduction to Entrepreneurial Thinking | 2.0     | _____ |                        |  |         |       |
| II                    | _____ CAL 105 CAL Colloquium                             | 3.0     | _____ |                        |  |         |       |

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Faculty Advisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

UG Records Auditor: \_\_\_\_\_ Date: \_\_\_\_\_

Original  Revision  
 2<sup>nd</sup> Degree



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Major Concentration Field: Biomedical Engineering Secondary Concentration Field: \_\_\_\_\_

| Term                  | Course   | Credits | Grade | Term                    | Course                                      | Credits | Grade |
|-----------------------|--|---------|-------|-------------------------|---|---------|-------|
| <b><u>TERM V</u></b>  |  |         |       | <b><u>TERM VII</u></b>  |   |         |       |
| V                     | BME 322 - Engineering Design VI                | 2.0     | _____ | VII                     | BME 423 - Senior Design I                   | 3.0     | _____ |
| V                     | BME 342 - Transport in Biological Systems      | 4.0     | _____ | VII                     | BME 482 - Engineering Physiology            | 4.0     | _____ |
| V                     | CH 243 - Organic Chemistry I                   | 3.0     | _____ | VII                     | BME 504 - Medical Instrumentation & Imaging | 3.0     | _____ |
| V                     | CH 245 - Organic Chemistry Laboratory I        | 1.0     | _____ | VII                     | BME 556 - Advanced Biomechanics             | 3.0     | _____ |
| V                     | CH 381 Cell Biology                            | 4.0     | _____ | VII                     | IDE 400- Senior Innovation I <sup>5</sup>   | 1.0     | _____ |
| V                     | E 243 - Probability & Statistics for Engineers | 3.0     | _____ | VII                     | IDE 401 - Senior Innovation II              | 1.0     | _____ |
| V                     | Humanities <sup>1</sup>                        | 3.0     | _____ | VI                      | Humanities <sup>1</sup>                     | 3.0     | _____ |
| <b><u>TERM VI</u></b> |  |         |       | <b><u>TERM VIII</u></b> |   |         |       |
| VI                    | BME 460 - Digital Signal Processing            | 2.0     | _____ | VIII                    | BME 424 - Senior Design II                  | 3.0     | _____ |
| VI                    | BME 505 - Biomaterials                         | 3.0     | _____ | VIII                    | BME 445 - Biosystems Simulation & Control   | 4.0     | _____ |
| VI                    | BME 506 - Biomechanics                         | 3.0     | _____ | VIII                    | BME 453 - Bioethics                         | 3.0     | _____ |
| VI                    | E 321 - Engineering Design V                   | 2.0     | _____ | VII                     | IDE 402 - Senior Innovation III             | 1.0     | _____ |
| VI                    | E 355 - Engineering Economics                  | 4.0     | _____ | VIII                    | General Elective <sup>2</sup>               | 3.0     | _____ |
| VI                    | General Elective <sup>2</sup>                  | 3.0     | _____ | VIII                    | Humanities <sup>1</sup>                     | 3.0     | _____ |

**ADDITIONAL COURSES** <sup>4</sup> - For medical school only; not required for the B.E.

|     |  |     |       |
|-----|--|-----|-------|
| III | PEP 221 - Physics I Lab                  | 1.0 | _____ |
| IV  | PEP 222 - Physics II Lab                 | 1.0 | _____ |
| VI  | CH 244 Organic Chemistry II <sup>4</sup> | 3.0 | _____ |
| VI  | CH 246 Organic Chemistry II Laboratory   | 1.0 | _____ |

**Required PE Courses** <sup>3</sup>

| Term  | Course | Credits | Grade | Term  | Course | Credits | Grade |
|-------|--------|---------|-------|-------|--------|---------|-------|
| _____ | _____  | PE      | _____ | _____ | _____  | PE      | _____ |
| _____ | _____  | PE      | _____ | _____ | _____  | PE      | _____ |

NOTES:

1. The four humanities beyond CAL 103 and 105 must cover at least two disciplines in CAL, with at least one course at the 100 or 200 level and at least one course at the 300 or 400 level.
2. General electives are courses chosen by the student. General electives can be applied towards a minor, research or approved international studies.
3. Four PE courses are required for graduation. Up to three terms of varsity athletics may be applied towards the PE requirement.
4. Additional courses are courses beyond the B.E. requirements that may be applied toward a minor or a graduate degree (mark GD) or may be extra courses (e.g. for medical school or from change in field of study; mark XT) Students considering medical school may take CH 244 as a general elective in term VI, in which case it should not be listed as an additional course.
5. Biomedical Engineering students should take IDE 400 concurrently with IDE 401, in Term VII

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Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Faculty Advisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

UG Records Auditor: \_\_\_\_\_ Date: \_\_\_\_\_

Gray Sequence (August 2017)