

# Biomedical Engineering and Electrical Engineering

Name: \_\_\_\_\_

## Honors Track 2 Curriculum Check Sheet 163-164 Credits

| COURSE  | NAME (PREREQS)   | TERM*    | CR              | COURSE  | NAME (PREREQS)   | TERM*        | CR        |
|---|--|----------|-----------------|---|--|--------------|-----------|
| <b>1<sup>st</sup> Year Fall</b>               |  |          |                 | <b>1<sup>st</sup> Year Spring</b>                 |  |              |           |
| HONR 192                                      | Honors First Year Seminar  | F        | 4               | CO 150  | College Composition (CO 130 or placement by ACT/SAT or DSP Survey or Challenge Exam)   | F, S, SS     | 3         |
| CHEM 111                                      | General Chemistry I (MATH 118 or 141 or 155 or 160 or 161 or 229 or 261)   | F, S, SS | 4               | MATH 161  | Calculus for Physical Scientists II (MATH 124; MATH 159 or 160)  | F, S, SS     | 4         |
| CHEM 112                                      | General Chem Lab I (CHEM 111 or 117 or conc.)  | F, S, SS | 1               | <b>ECE 103</b>                                    | DC Circuit Analysis ( <b>MATH 160</b> )  | F, S         | 3         |
| <b>MATH 160</b>                               | Calculus for Physical Scientists I (MATH 124 (B or better); MATH 126 (B or better))  | F, S, SS | 4               | <b>PH 141</b>                                     | Physics for Scientists and Engineers I (MATH 126 or conc.; MATH 155 or 159 or 160 or conc.)  | F, S, SS     | 5         |
| <b>ECE 102</b>                                | Digital Circuit Logic  | F, S     | 4               |   |  |              |           |
|   | <b>Total</b>   |          | <b>17</b>       |   |  | <b>Total</b> | <b>15</b> |
| <b>2nd Year Fall</b>                          |  |          |                 | <b>2nd Year Spring</b>                            |  |              |           |
| BIOM 101                                      | Introduction to Biomedical Engineering   | F        | 3               | <b>ECE 202</b>                                    | Circuit Theory Applications ( <b>ECE 103, MATH</b>   | S,SS         | 4         |
| CS 163 OR CS 164 OR CS155, CS156, CS157       | Java (CS1) No Prior Programming ( <b>MATH 124</b> ) OR Java (CS1) Prior Programming ( <b>MATH 124</b> ) OR Unix and C Programming I (CS 155 or conc.; MATH 118) & II (CS 156 or conc.; MATH 118) | F,S      | 4 or 3          | <b>MATH 340<sup>A</sup></b><br><b>or MATH 345</b> | Introduction to Ordinary Differential Equations (MATH 255 or 261) -- OR -- Differential Equations (MATH 229 or MATH 369; MATH 255 or MATH 261) | F, S, SS     | 4         |
| MATH 261 <sup>A</sup>                         | Calculus for Physical Scientists III (MATH 161)  | F, S, SS | 4               | LIFE 102 <sup>A</sup>                             | Attributes of Living Systems   | F, S, SS     | 4         |
| <b>PH 142</b>                                 | Physics for Scientists and Engineers II (PH 141; MATH 161 or 255 or 271 or conc.)  | F,S      | 5               | <b>ECE / STAT 303</b>                             | Introduction to Communication Principles (MATH 340 or 345 or conc.)  | S            | 3         |
|   |  |          |                 | AUCC  |  | F, S, SS     | 3         |
|   | <b>Total</b>   |          | <b>18 or 19</b> |   |  | <b>Total</b> | <b>18</b> |
| <b>3rd Year Fall</b>                          |  |          |                 | <b>3rd Year Spring</b>                            |  |              |           |
| BMS 300                                       | Principles of Human Physiology (BZ 101 or 110 or LIFE 102; CHEM 103 or 107 or 111)   | F, S, SS | 4               | <b>BIOM 300</b>                                   | Problem-Based Learning BME Lab (BIOM 101; MATH 340 or 345)   | S            | 4         |
| <b>ECE 311</b>                                | Linear Systems Analysis I ( <b>ECE 202; MATH 340 or MATH 345</b> )   | F        | 3               | <b>ECE 312</b>                                    | Linear Systems Analysis II ( <b>ECE 311</b> )  | S            | 3         |
| <b>ECE 331<sup>A</sup></b>                    | Electronics Principles I ( <b>ECE 202; MATH 340 or 345; PH142</b> )  | F        | 4               | <b>ECE 332</b>                                    | Electronics Principles II ( <b>ECE 331</b> )   | S            | 4         |
| <b>ECE 341<sup>A</sup></b>                    | Electromagnetics Fields and Devices I ( <b>ECE 202; MATH 340 or 345; PH 142</b> )  | F        | 3               | <b>ECE 342<sup>A</sup></b>                        | Electromagnetic Fields and Devices II ( <b>ECE 341</b> )   | S            | 3         |
| HONR 292 OR 293                               | Honors Seminar -- Knowing in Arts & Humanities OR -- Knowing Across Cultures (HONR 193)  | F, S     | 3               | CHEM 113  | Gen Chem II (CHEM 107 or 111 or 117; MATH 124 or MATH 141, 155, 160, 161, 229, 261 or conc.)   | F, S, SS     | 3         |
|   | <b>Total</b>   |          | <b>17</b>       |   |  | <b>Total</b> | <b>17</b> |
| <b>4th Year Fall</b>                          |  |          |                 | <b>4th Year Spring</b>                            |  |              |           |
| LIFE 210 <sup>A</sup> & LIFE 211 <sup>A</sup> | Introductory Eukaryotic Cell Biology (LIFE 102; CHEM 111; CHEM 112) NOTE: LIFE 211 (1 cr recitation) is required and only needed if LIFE 210 is taken as an Honors course                        | F        | 4               | BIOM/ECE-TE                                       | BIOM/ECE Crosslisted Technical Elective (BIOM 431 - <b>ECE 303; ECE 311; PH 142</b> )  | S            | 3         |
| CHEM 245                                      | Fundamentals of Organic Chem. (CHEM 107 or 113)  | F, S, SS | 4               | MECH 337  | Thermodynamics (MATH 261; PH 141)  | F, S         | 4         |
| <b>ECE 251</b>                                | Introduction to Microprocessors ( <b>ECE 102</b> )   | F        | 4               | MECH 262  | Engineering Mechanics (MATH 161; PH 141)   | S            | 4         |
| ECON 202 (AUCC 3C)                            | Principles of Microeconomics (MATH 117 or 118 or 141 or 155 or 160)  | F, S, SS | 3               | ECE-TE  | ECE Technical Elective _____   |              | 3         |
| ECE-TE  | ECE Technical Elective _____   |          | 3               | AUCC  |  | F, S, SS     | 3         |
|   | <b>Total</b>   |          | <b>18</b>       |   |  | <b>Total</b> | <b>17</b> |
| <b>5th Year Fall</b>                          |  |          |                 | <b>5th Year Spring</b>                            |  |              |           |
| BIOM 486A                                     | Biomedical Design Practicum: Capstone Design I (BIOM 300; BIOM 330 or BIOM 441 or <b>BIOM/ECE Crosslisted Tech Elec - change pending</b> )   | F        | 4               | BIOM 486B   | Biomedical Design Practicum: Capstone Design II (BIOM 486A)  | S            | 4         |
| BME-TE  | BME Technical Elective _____   |          | 3               | BME-TE  | BME Technical Elective _____   |              | 3         |
| ECE-TE  | ECE Technical Elective _____   |          | 3               | ECE-TE  | ECE Technical Elective _____   |              | 3         |
| Advanced Writing                              | CHEM 301 or CO300 or CO301B or JTC 300 or LB 300 (CO150, HONR193)  | F, S, SS | 3               | ECE-TE  | ECE Technical Elective _____   |              | 2         |
| HONR 399                                      | Pre-Thesis - Honors  | F, S     | 1               | HONR 499  | Senior Honors Thesis (HONR 399)  | F, S, SS     | 3         |
| AUCC  |  | F, S, SS | 3               |   |  |              |           |
|   | <b>Total</b>   |          | <b>17</b>       |   |  | <b>Total</b> | <b>15</b> |

Please note that curricula can change; be sure to check with your advisers regularly to ensure you are on track.

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| <b>Track 2 Honors Program Required Courses in BLUE:</b><br>* HONR 192, 292 or 293, 399, 499<br>* 15 credits of honors courses in major<br>^ Honors Sections offered in these regular classes. |
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| <b>Additional All University Core Courses (AUCCs)</b><br>**HONR 292 counts as 3B A&H;<br>HONR 293 counts as 3E G/C | 3 cr - 3B Arts and Humanities (A&H):<br>3 cr - 3C Social/Behavioral Science: ECON 202<br>3 cr - 3D Historical Perspective:<br>**3 cr - EITHER 3B A&H OR 3E Global/Cultural Awareness: |
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PLI- 11 seminar credits must be completed prior to graduation:  
[www.engr.colostate.edu/pli](http://www.engr.colostate.edu/pli)

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| <b>Key:</b><br>"conc." = concurrent enrollment *Term: F = Fall, S = Spring, SS = Summer Session<br>Grey indicates Biomedical Engineering courses<br>Light green indicates labs<br>Must have at least a "C" in BOLDDED courses<br>Red indicates exceptionally time-consuming/difficult courses |
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