## Sample Schedule for ECE/BME Additional Majors in the Neuro Track

Updated 4/26/22

|             | d Computer Engineering                             |        |       |                         | mputer Engineering + BME                               |        |       |
|-------------|--|--------|-------|-------------------------|--|--------|-------|
| First Year  |  |        |       | First Year              |  |        |       |
|             | Fall   |        | Units |                         | Fall   |        | Units |
| 21-120      | Differential & Integral Calculus                   |        | 10    | 21-120                  | Differential & Integral Calculus                       |        | 10    |
| 33-141      | Physics I for Engineering Students                 |        | 12    | 33-141                  | Physics I for Engineering Students                     |        | 12    |
| 18-100      | Introduction to ECE                                |        | 12    | 18-100 or <b>42-101</b> | Introduction to ECE or Intro to Biomedical Engineering |        | 12    |
| 76-101      | Interpretation and Argument                        |        | 9     | 76-101                  | Interpretation and Argument                            |        | 9     |
| 99-101      | Computing@Carnegie Mellon                          |        | 3     | 99-101                  | Computing@Carnegie Mellon                              |        | 3     |
|             |  | Total: | 46    |                         |  | Total: | 46    |
|             | Spring   |        | Units |                         | Spring   |        | Units |
| 21-122      | Integration & Approximation                        |        | 10    | 21-122                  | Integration & Approximation                            |        | 10    |
| 15-112      | Fundamentals of Programming and CS                 |        | 12    | 18-100 or <b>42-101</b> | Introduction to ECE or Intro to Biomedical Engineering |        | 12    |
| xx-101      | Engineering Intro Elective (12 units)              |        | 12    | 15-112                  | Fundamentals of Programming and CS                     |        | 12    |
| xx-xxx      | General Education Course                           |        | 9     | 03-121                  | Modern Biology   |        | 9     |
|             |  | Total: | 43    |                         |  | Total: | 43    |
| Second Year |  |        |       | Second Year             |  |        |       |
|             | Fall   |        | Units |                         | Fall   |        | Units |
| 18-200      | Sophomore ECE Seminar                              |        | 1     | 18-200                  | Sophomore ECE Seminar                                  |        | 1     |
| 18-xxx      | ECE Core Requirement (12)                          |        | 12    | 18-xxx                  | ECE Core Requirement (12)                              |        | 12    |
| 18-202      | Mathematical Foundations of Electrical Engineering |        | 12    | 18-202                  | Mathematical Foundations of Electrical Engineering     |        | 12    |
| xx-xxx      | General Education Course                           |        | 9     | XX-XXX                  | General Education Course                               |        | 9     |
| 33-142      | Physics II for Engineering and Physics Students    |        | 12    | 33-142                  | Physics II for Engineering and Physics Students        |        | 12    |
|             | Free Elective                                      |        | 9     | 42-201                  | Professional Issues in BME                             |        | 3     |
| 39-210      | Experiential Learning I                            |        | 0     | 42-202 or 42-203        | Physiology or BME Laboratory                           |        | 9     |
|             |  |        |       | 39-210                  | Experiential Learning I                                |        | 0     |
|             |  | Total: | 55    |                         |  | Total: | 58    |
|             | Spring   |        | Units |                         | Spring   |        | Units |
| 18-xxx      | ECE Core Requirement                               |        | 12    | 18-xxx                  | ECE Core Requirement                                   |        | 12    |
| 21-127      | Concepts of Math                                   |        | 10    | 21-127                  | Concepts of Math                                       |        | 10    |
| 15-122      | Principles of Imperative Computation               |        | 10    | 15-122                  | Principles of Imperative Computation                   |        | 10    |
| xx-xxx      | Free Elective                                      |        | 9     | 42-202 or 42-203        | Physiology or BME Laboratory                           |        | 9     |
| xx-xxx      | General Education Course                           |        | 9     | XX-XXX                  | General Education Course                               |        | 9     |
| 39-220      | Experiential Learning II                           |        | 0     | 39-220                  | Experiential Learning II                               |        | 0     |
|             |  | Total: | 50    |                         |  | Total: | 50    |
| Third Year  |  |        |       | Third Year              |  |        |       |
|             | Fall   |        | Units |                         | Fall   |        | Units |
| 18-xxx      | ECE Core Requirement                               |        | 12    | 18-xxx                  | ECE Core Requirement                                   |        | 12    |
| 18-xxx      | ECE Area 1   |        | 12    | 18-xxx                  | ECE Area 1   |        | 12    |
| 36-225      | Probability and Statistics                         |        | 9     | 36-225                  | Probability and Statistics                             |        | 9     |
| xx-xxx      | Free Elective                                      |        | 9     | 42-xxx or 42-302        | Neuro Track Elective or BME Systems Modeling and Analy | ysis   | 9     |
| xx-xxx      | General Education Course                           |        | 9     | XX-XXX                  | General Education Course                               |        | 9     |
| 39-310      | Experiential Learning III                          |        | 0     | 39-310                  | Experiential Learning III                              |        | 0     |
|             |  | Total: | 51    |                         |  | Total: | 51    |

|             | Spring                   |        | Units |                  | Spring  | Units |
|-------------|--------------------------|--------|-------|------------------|---|-------|
| 18-xxx      | ECE Core Requirement     |        | 12    | 18-xxx           | ECE Core Requirement                                      | 12    |
| 18-xxx      | ECE Area 2               |        | 12    | 18-xxx           | ECE Area 2  | 12    |
| XX-XXX      | Math/Science Elective    |        | 9     | XX-XXX           | Math/Science Elective                                     | 9     |
| xx-xxx      | Free Elective            |        | 9     | 42-xxx or 42-302 | Neuro Track Elective or BME Systems Modeling and Analysis | 9     |
| xx-xxx      | General Education Course |        | 9     | XX-XXX           | General Education Course                                  | 9     |
|             |                          | Total: | 51    |                  | Total:  | 51    |
| Fourth Year |                          |        |       | Fourth Year      |   |       |
|             | Fall                     |        | Units |                  | Fall  | Units |
| xx-xxx      | ECE Coverage             |        | 12    | XX-XXX           | ECE Coverage  | 12    |
| 18-xxx      | ECE Course 2 from Area 1 |        | 12    | 18-xxx           | ECE Course 2 from Area 1                                  | 12    |
| xx-xxx      | Math/Science Elective II |        | 9     | 42-401           | Foundations of BME Design                                 | 6     |
| XX-XXX      | Free Elective            |        | 3     | 42-xxx           | Neuro Track Elective                                      | 9     |
| XX-XXX      | General Education Course |        | 9     | XX-XXX           | General Education Course                                  | 9     |
|             |                          | Total: | 45    |                  | Total:  | 48    |
|             | Spring                   |        | Units |                  | Spring  | Units |
| 18-5xx      | ECE Capstone Design      |        | 12    | 18-5xx           | ECE Capstone Design                                       | 12    |
| XX-XXX      | Free Elective            |        | 9     | 42-xxx           | Neuro Track Elective                                      | 9     |
| XX-XXX      | Free Elective            |        | 9     | 42-402           | BME Design  | 9     |
| XX-XXX      | General Education Course |        | 9     | XX-XXX           | General Education Course                                  | 9     |
|             |                          |        |       | XX-XXX           | General Education Course                                  | 9     |
|             |                          | Total: | 39    |                  | Total:  | 48    |

Minimum no. of units to graduate: 380 (ECE), 385 (ECE/BME)