## DEGREE PLAN BACHELOR DEGREE IN BIOMEDICAL ENGINEERING

| Student Name:                               | Catalog: 2016 - 17 TISSUE ENG                   |                    |
|---|---|--------------------|
| Student ID:                                 | Expected Date of Graduation:                    |                    |
| Prepared by: Diana Jones 17-Nov-16          | Approved by:                                    | Data               |
| Date<br>Approved by:                        | Certified by:                                   | Date               |
| Date  |   | Date               |
| Hrs   |   | Hrs                |
| Taken Grade Transf Hrs Ernd                 | Taken Grade Transf                              | Hrs Ernd           |
| COMMUNICATION (RQ-2934)                     | ENGINEERING (RQ-2987)                           |                    |
| ENGL 1301 Rhetoric & Composition I 3        | ENGR 1300 Eng Problem Solving                   | 3                  |
| COMS 2302 Prof, Tech Commu, Sci & Eng 3     | CSE 1311 Intro to Prog for Eng & Sci            | 3                  |
| Total Hrs. 6                                | Total Hrs.                                      | 6                  |
| US HISTORY (RQ-2998)                        | MAJOR: BIOMEDICAL ENGINEERING (TE concentration | <b>)</b> (RQ-2987) |
| HIST 1311 History of US to 1865 3           | BE 1105 Medical Appl of Engineering             | 1                  |
| HIST 1312 History of US, 1865 to present 3  | BE 1325 Intro to Bioengineering                 | 3                  |
| Total Hrs. 6                                | BE 3301 Cell Physiology for Bieongineers        | 3                  |
| GOVERNMENT/POLITICAL SCIENCE (RQ-2999)      | BE 3317 Linear Systems in Bioengineering        | 3                  |
| POLS 2311 Gov't of the US 3                 | BE 3320 Measurement Lab                         | 3                  |
| POLS 2312 State & Local Gov't 3             | BE 3380 Human Physiology in BE                  | 3                  |
| Total Hrs. 6                                | BE 3415 Fundamentals of Biomolecular Eng        | 4                  |
| CREATIVE ARTS (RQ-2997)                     | BE 4350 Senior Design Project I                 | 3                  |
| Music Appreciation 3                        | BE 4355 Senior Design Project II                | 3                  |
| Total Hrs. 3                                | BE 4382 Laboratory Principles                   | 3                  |
| LANGUAGE, PHILOSOPHY AND CULTURE (RQ-2996)  | BE 3310 Biomech. & Fluid Flow (w/Lab)           | 3                  |
| PHIL 1304 Biomedical Ethics 3               | BE 3367 Cell Culture and Drug Delivery Lab      | 3                  |
| Total Hrs. 3                                | BE 4368 An Intro Tissue Eng, Drug Delivery      | 3                  |
|   | BE 4333 Nano Biomaterials                       | 3                  |
| SOCIAL AND BEHAVIOR SCIENCE (RQ-3000)       | BE 4337 Transport Phenomena in BME              | 3                  |
| Elective (choose 1 from Table B) 3          | Total Hrs.                                      | 44                 |
| Total Hrs. 3                                | BIOMED ENGINEERING ELECTIVES (Choose 3 from     | below)             |
| SCIENCE (RQ-2995)                           | BE 3343 MATLAB Appl for Bioengineers            | 3                  |
| CHEM 1441 General Chemistry I 4             | BE 3344 Bioinstrumentation                      | 3                  |
| CHEM 1442 General Chemistry II 4            | BE 4329 Neural Engineering                      | 3                  |
| BIOL 1441 Cell & Molecular Biology 4        | BE 4366 Process Control in Biotech              | 3                  |
| BIOL 1442 Struc & Func of Organisms 4       | BE 3346 Medical Imaging                         | 3                  |
| PHYS 1443 General Tech Physics I 4          | BE 3352 Digital Process of Biol Signals         | 3                  |
| PHYS 1444 General Tech Physics II 4         | BE 4324 Biomedical Optics Lab                   | 3                  |
| Total Hrs. 24                               | BE 3325 Fluoroscence Microscopy                 | 3                  |
| MATHEMATICS (RQ-2985)                       | BE 3327 Tissue Optics                           | 3                  |
| MATH 1426 Calculus I 4                      | BE 4326 Tissue Ultrasound-optical Imag          | 3                  |
| MATH 2425 Calculus II 4                     | BE 4368 An Intro Tissue Eng, Drug Delivery      | 3                  |
| MATH 2326 Calculus III 3                    | BE 3367 Cell Culture and Drug Delivery Lab      | 3                  |
| MATH 3319 Diff Eqs & Linear Algebra 3       | BE 3372 Drug Delivery lecture                   | 3                  |
| MATH 3316 or IE 3301 Statistics Inference 3 | BE 4331 Polymer in BME                          | 3                  |
| Total Hrs. 17                               | Total Hrs.                                      | 9                  |

Total Hours.

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