

**2023 ELECTRICAL ENGINEERING: RF and Microwaves Track**

**DEGREE REQUIREMENT CHECKSHEET**

**COLLEGE OF ENGINEERING & COMPUTER SCIENCE**

**UNIVERSITY OF CENTRAL FLORIDA**

| <b>GENERAL EDUCATION PROGRAM</b>   |           |            |                    | <b>LOWER AND JUNIOR LEVEL REQUIRED COURSES</b>             |           |    | <b>SH</b> | <b>Grd</b> | <b>Trans Equiv</b> |
|--|-----------|------------|--------------------|--|-----------|----|-----------|------------|--------------------|
| * Indicates "C-" minimum required by the Gordon Rule   |           |            |                    | EGS 1006C Introduction to the Engineering Profession       | 1         | #  |           |            |                    |
| ** Indicates minimum "C" or better grade   |           |            |                    | EGN 1007C Engineering Concepts and Methods                 | 1         | #  |           |            |                    |
| <b>COMMUNICATION (9 SEM HRS)</b>   | <b>SH</b> | <b>Grd</b> | <b>Trans Equiv</b> | STA 3032 Probability & Statistics for Engineers            | GEP       |    |           |            |                    |
| ENC 1101   | 3         | *          |                    | PHY 3101 General Physics Using Calculus III                |           |    |           |            |                    |
| ENC 1102   | 3         | *          |                    | EEL 3926L Junior Design                                    |           |    |           |            |                    |
| SPC 1603C  | 3         |            |                    | EGN 3211 Engineering Analysis & Computation                |           | ** |           |            |                    |
| <b>CULTURAL &amp; HISTORICAL (9 SEM HRS)</b>   |           |            |                    | EEL 3004C Linear Circuits I                                | 3         | ** |           |            |                    |
| Select 2: AMH 2010, EUH 2000, EUH 2001, HUM 2211, HUM 2230, WOH 2012, WOH 2022                                   | 6         | *          |                    | EEL 3123C Linear Circuits II                               | 3         | ** |           |            |                    |
| Approved Cultural Foundations course:  | 3         |            |                    | EEE 3307C Electronics I                                    | 4         |    |           |            |                    |
| <b>SOCIAL FOUNDATION - (6 SEM HRS)</b>   |           |            |                    | EEE 3342C Digital Systems                                  | 3         | ** |           |            |                    |
| ANT 2000/ PSY 2012/ SYG 2000   | 3         |            |                    | EEL 3801C Computer Organization                            | 4         | ** |           |            |                    |
| ECO 2013 <i>or</i> ECO 2023  | 3         |            |                    | EEL 3470 Electromagnetic Fields                            | 3         |    |           |            |                    |
| <b>SCIENCE - 6 SH</b>  |           |            |                    | <b>JUNIOR LEVEL ELECTIVE COURSES (CHOOSE 2)</b>            |           |    | <b>SH</b> | <b>Grd</b> | <b>Trans Equiv</b> |
| GEO 1200 <i>or</i> GEO 2370 (either GEO is preferred) <i>or</i> BSC 1050C <i>or</i> BSC 1005C <i>or</i> GLY 1030 | 3         |            |                    | EEE 3350 Semiconductor Devices                             | 3         |    |           |            |                    |
| PHY 2048C General Physics Using Calculus I   | 4         |            |                    | EEL 3552C Signal Analysis & Analog Communication           | 4         |    |           |            |                    |
| <b>MATHEMATICAL - 6 SH</b>   |           |            |                    | EEL 3657 Linear Control Systems                            | 3         |    |           |            |                    |
| MAC 2311C Calculus with Analytic Geometry I  | 4         | **         |                    | <b>SENIOR LEVEL REQUIRED COURSES</b>                       |           |    | <b>SH</b> | <b>Grd</b> | <b>Trans Equiv</b> |
| STA 3032 Probability & Statistics for Engineers  | 3         |            |                    | EEE 4309C Electronics II                                   | 4         |    |           |            |                    |
| GPA Gen Ed Prog =  | 36        |            |                    | EEL 4742C Embedded Systems                                 | 3         |    |           |            |                    |
| <b>ENGINEERING CORE**</b>  |           |            |                    | EEL 4436C Microwave Engineering                            | 4         |    |           |            |                    |
| MAC 2311C Calculus with Analytic Geometry I  | GEP       | **         |                    | <b>RECOMMENDED SENIOR LEVEL ELECTIVE COURSES</b>           |           |    | <b>SH</b> | <b>Grd</b> | <b>Trans Equiv</b> |
| MAC 2312 Calculus with Analytic Geometry II  | 4         |            |                    | <b>(CHOOSE MINIMUM 3 FROM LIST)</b>                        |           |    |           |            |                    |
| MAC 2313 Calculus with Analytic Geometry III   | 4         | **         |                    | EEL 4140C Analog Filter Design                             | 4         |    |           |            |                    |
| MAP 2302 Ordinary Differential Equations I   | 3         | **         |                    | EEL 4515C Fundamentals of Digital Communication            | 4         |    |           |            |                    |
| CHS 1440 Principles of Chemistry (or CHM 2045C)  | 4         | **         |                    | EEL 4518 Satellite Communications                          | 3         |    |           |            |                    |
| PHY 2048 & PHY 2048L General Physics Using Calculus I & Lab  | GEP       | **         |                    | EEL 4750 Digital Signal Processing Fundamentals            | 3         |    |           |            |                    |
| PHY 2049 & PHY 2049L General Physics Using Calculus II & Lab   | 4         | **         |                    | EEL 5462C Antenna Analysis and Design                      | 3         |    |           |            |                    |
|  |           | **         |                    | EEL 5439C RF and Microwave Communications                  | 4         |    |           |            |                    |
| <b>SUBTOTAL SEM HRS</b>  | <b>19</b> |            |                    | EEE 5557 Introduction to Radar Systems                     | 3         |    |           |            |                    |
|  |           |            |                    | EEL 5432 Satellite Remote Sensing                          | 3         |    |           |            |                    |
|  |           |            |                    | EEE 5356C Fabrication of Solid State Devices               | 4         |    |           |            |                    |
|  |           |            |                    | EEE 5513 DSP Applications                                  | 3         |    |           |            |                    |
|  |           |            |                    | EEE 5265 Bio-Medical Effects and Applications of EM Energy | 3         |    |           |            |                    |
|  |           |            |                    | EEE 5370 Operational Amplifiers                            | 3         |    |           |            |                    |
|  |           |            |                    | EEE 5378 CMOS Analog and Digital Circuit Design            | 3         |    |           |            |                    |
|  |           |            |                    | REQUIRED   |           |    |           |            |                    |
|  |           |            |                    |  |           |    |           |            |                    |
|  |           |            |                    | <i>Technical Electives (EEE or EEL 4XXX or 5XXX)</i>       | 10-12     | ~  |           |            |                    |
|  |           |            |                    | EEL 4914 Senior Design I                                   | 3         |    |           |            |                    |
|  |           |            |                    | EEL 4915L Senior Design II                                 | 3         |    |           |            |                    |
|  |           |            |                    | <b>SUBTOTAL SEM HRS</b>                                    | <b>71</b> |    |           |            |                    |

\*\* A Grade of C (2.00) or higher required

\* Transfer students please see your faculty advisor before registering for these classes.

GPA Engr Option = (2.250 minimum)

ADVISOR COMMENTS:

~BS-MS students should choose (3 SH) 5000 level courses as electives.

