

Department of Electrical and Computer Engineering
Naval Postgraduate School
Monterey, California

Undergraduate Education Evaluation Form

The Department of Electrical and Computer Engineering at the Naval Postgraduate School is accredited at the Master of Science degree level through the Accreditation Board of Engineering and Technology. Students earning a Master of Science in Electrical Engineering or a Degree of Electrical Engineer at NPS, must either have attained an ABET accredited undergraduate Electrical Engineering degree, or earned the equivalency of a Bachelor of Science Degree in Electrical Engineering. Some courses from the student’s undergraduate institution may count towards this equivalency, even though the final undergraduate degree may not have been in Electrical Engineering. Some courses taken at NPS may also be applied to meeting the undergraduate equivalency. This evaluation form is provided to document the completion of this equivalency.

Name of Student: _____ Email Address: _____

Enrollment Date: _____ Intended Graduation Date: _____

| Institutions Attended | Dates of Attendance | Degrees Received | ABET Accredited (Yes/No) ¹ |
|-----------------------|---------------------|------------------|---------------------------------------|
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| | | | |

¹ Skip the rest of the form if you have an ABET accredited BSEE degree.

I certify the information on all pages of this form is complete and correct.

Signature of Student: _____ Date: _____

We certify this student has met the minimum requirements for the undergraduate equivalence to a BSEE Degree.

 ECE Department Academic Associate, Date

 ECE Associate Chair for Students, Date

 Program Officer, Date

I. Mathematics

I.A A minimum of 24 quarter credit hours or 16 semester credit hours of college-level mathematics is required. College-level mathematics consists of mathematics that requires a degree of mathematical sophistication at least equivalent to that of introductory calculus. **List all college-level mathematics courses passed with a grade of C- or better in chronological order from least recently taken to most recently taken.** For each course, indicate the college or university where the course was taken, the course number, the course title, and the number of credit hours.

| University | Number | Title | Qtr Credits | Sem Credits |
|--|--------|-------|-----------------------------|-------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| Qtr Credits Subtotal: _____ | | | Sem Credits Subtotal: _____ | |
| Total Credits (Qtr Credits + (1.5 x Sem Credits)): _____ | | | | |

I.B For each of the following mathematics subjects that has been studied, **indicate the college or university where the subject was studied, the course number, and the course title.** All courses must have been passed with a grade of C- or better.

| Subject | University | Number | Title |
|------------------------|------------|--------|-------|
| Differential Calculus | _____ | _____ | _____ |
| Integral Calculus | _____ | _____ | _____ |
| Differential Equations | _____ | _____ | _____ |
| Linear Algebra | _____ | _____ | _____ |
| Complex Variables | _____ | _____ | _____ |
| Discrete Mathematics | _____ | _____ | _____ |
| Probability | _____ | _____ | _____ |
| Statistics | _____ | _____ | _____ |

V. Overall Evaluation of Academic Background

Section to be filled out by Academic Associate during final student interview after reviewing the student academic background

| <i>Student has demonstrated that he/she has:</i> | <i>Satisfied by (Check all that apply) ✓</i> | | | |
|---|--|--------------------------|------------------------------------|-----------------|
| | <i>Course Work</i> | <i>Design Experience</i> | <i>Work or Military Experience</i> | <i>Comments</i> |
| An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. | | | | |
| An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. | | | | |
| An ability to communicate effectively with a range of audiences. | | | | |
| An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts. | | | | |
| An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. | | | | |
| An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions. | | | | |
| An ability to acquire and apply new knowledge as needed, using appropriate learning strategies. | | | | |

Additional comments:

Naval Postgraduate School
Department of Electrical and Computer Engineering
List of Undergraduate Level ECE Courses

General Purpose

EC1010 Introduction to MATLAB, P/F only (1.5 quarter credits)
EC/AE2440 Introduction to Scientific Programming (4 quarter credits)
EC2010 Probabilistic Analysis of Signals and Systems (3.5 quarter credits)

Circuits and Electronics

EC2100 Circuit Analysis (4 quarter credits)
EC2110 Circuit Analysis II (4 quarter credits)
EC2200 Introduction to Electronics Engineering (4.5 quarter credits)

Controls

EC2300 Control Systems (4 quarter credits) (or ME2801 which is cross-listed with EC2300)
EC2320 Linear Systems (3.5 quarter credits)

Signal Processing

EC2400 Discrete Systems (3.5 quarter credits)
EC2410 Analysis of Signals and Systems (3.5 quarter credits)
EC2450 Accelerated Review of Signals and Systems - offered online and P/F only. *Only available as a refresher for students who covered these concepts in their undergraduate program, not available for students who did not cover concepts before, credits will not count towards undergraduate equivalency.* (4 quarter credits)

Communications

EC2500 Communications Systems (4 quarter credits)

Electromagnetics

EC2650 Fundamentals of Electromagnetic Fields (4.5 quarter credit)

Computers

EC2820 Digital Logic Circuits (4 quarter credits)
EC2840 Introduction to Microprocessors (4 quarter credits)

Design

EC2220 Electrical Engineering Design; ABET Design Project in Electrical Engineering (5 quarter credits), *required for students without an undergraduate degree in Engineering*

EC2700 Introduction to Cyber Systems (4.5 quarter credits)

Note: EC2700 cannot be used to meet requirements for knowledge of concepts in any of the areas listed above.