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]

[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	_____	_____	_____

II. Sciences

II.A Basic Science

A minimum of 24 quarter credit hours or 16 semester credit hours of college-level basic science is required. Basic sciences consist of chemistry and physics and other natural sciences including life, earth, and space sciences. **List all college-level basic science courses passed with a grade of C- of 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)): _____

II.B Physics

A two-course sequence in calculus based college-level physics is required. **List a sequence of Physics courses at least two courses long**. **Course must have been passed with a grade of C- or better**. 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

II.C Computing Science

A knowledge of computing science is required. **List at least one college-level computing science course passed with a grade of C- or better**. Indicate the college or university where the course was taken, the course number, the course title, and the number of credit hours. Currently approved NPS courses meeting such requirement are: AE/EC2440, EC2820, EC2840, EC2700, and CS2020. Any other NPS course must have the **advanced approval** of the ECE Academic Associate and Chairperson.

University	Number	Title	Qtr Credits	Sem Credits

III. Engineering Science and Engineering Design

A minimum of 72 quarter credit hours or 48 semester hours of engineering science and design is required.

III.A Electrical Engineering: *At least* 54 quarter credit hours or 36 semester credit hours must be in Electrical Engineering science and design. **List all *Electrical Engineering 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)): _____

III.B Non-Electrical Engineering: *At most* 18 quarter credit hours or 12 semester credit hours may be in non-Electrical Engineering science and design. **List *non Electrical Engineering courses* passed with a grade of C- or better.** Include only courses **leading to a total not exceeding** the above maximum number of credits. 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
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Qtr Credits Subtotal: _____   Sem Credits Subtotal: _____

Total Credits (Qtr Credits + (1.5 x Sem Credits)): _____

III.C Sum of Total Credits from Part A and Part B (in Qtr Credits):

III.D Design Experience: A major design experience at the advanced undergraduate level that is based on the knowledge and skills acquired in earlier course work and incorporating appropriate engineering standards and multiple realistic constraints is required. **Briefly describe your major design experience and include associated course number(s). Include brief description of specific engineering standards and multiple constraints considered.** This requirement can be satisfied at the NPS by completing a course with a major design experience that has been previously approved by the NPS ECE Department Curriculum Committee, such as EC2220.

Attach a short summary of your project including a description of engineering standards and constraints used in the work at the back.

Additional comments: _____

IV. General Education

A minimum of 24 quarter credit hours or 16 semester credit hours is required in general education courses that complement the technical curriculum and are consistent with program and institution objectives. **List courses in subjects other than mathematics, basic science, computer science, and engineering passed with a grade C- or better.** List courses 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. Examples of topics in these areas include philosophy, fine arts, sociology, psychology, political science, anthropology, economics, and foreign languages.

University	Number	Title	Qtr Credits	Sem Credits
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Qtr Credits Subtotal: _____ Sem Credits Subtotal: _____

Total Credits (Qtr Credits + (1.5 x Sem Credits)): _____

V. Overall Evaluation of Academic Background

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

Student has demonstrated that he/she has:	*Satisfied by (Check all that apply)* ✔			
	Course Work	*Design Experience*	*Work or Military Experience*	*Comments*
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:

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

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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, note: 4.5 credits starting in FY21)
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, note: 4.5 credits starting in FY20)
EC2840 Introduction to Microprocessors (4 quarter credits)

Design
EC2220 Electrical Engineering Design; ABET Design Project in Electrical Engineering (5 quarter credits), *course 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.