

## ***Department of Electrical and Computer Engineering Checklist for the MEng(EE) Degree***

This checklist is provided to document the completion of the degree requirements for the program leading to the Master of Engineering with Major in Electrical Engineering at NPS.

**Student name:** \_\_\_\_\_ ; **email:** \_\_\_\_\_

**Month/year enrolled:** \_\_\_\_\_ ; **Graduation date:** \_\_\_\_\_

**I certify that 1) the information contained on this form is correct; and 2) courses included in this checklist are not included in the requirements towards another Master degree.**

**Student :** \_\_\_\_\_ ; **Date:** \_\_\_\_\_

**We certify that this student has met the minimum requirements for the MEng(EE) degree.**

**Signatures:**

\_\_\_\_\_  
**Academic Associate, Date  
ECE Department**

\_\_\_\_\_  
**ECE Assoc. Chair for Students, Date**

\_\_\_\_\_  
**Program Officer, Date**

\_\_\_\_\_  
**ECE Department Chair, Date**

## List of available ECE courses

### Communications Systems

EC 3500	Analysis of Random Signals	(4-0)
EC 3510	Communications Engineering	(3-1)
EC 4500	Advanced Topics in Communications	(3-0)
EC 4510	Cellular Communications	(3-0)
EC 4530	Soft Radios	(3-2)
EC 4550	Digital Communications	(4-0)
EC 4560	Spread Spectrum Communications	(3-2)
EC 4570	Signal Detection and Estimation	(4-0)
EC 4580	Coding and Information Theory	(4-0)
EC 4590	Communications Satellite Systems Engineering	(3-0)

### Computer Systems

EC 3800	Microprocessor Based System Design	(3-2)
EC 3820	Computer Systems	(3-1)
EC 3830	Digital Computer Design Methodology	(3-2)
EC 3840	Introduction to Computer Architecture	(3-2)
EC 4800	Advanced Topics in Computer Engineering	(3-0)
EC 4810	Fault Tolerant Computing	(3-2)
EC 4820	Advanced Computer Architecture	(3-1)
EC 4830	Digital Computer Design	(3-1)
EC 4840	Advanced Microprocessors	(3-1)
EC 4850	High Speed Networking	(3-2)
EC 4870	VLSI Systems Design	(3-2)

### Guidance, Control, & Navigation Systems

EC 3310	Optimal Estimation: Sensor and Data Association	(3-2)
EC 3320	Optimal Control Systems	(3-2)
EC 4310	Robotics Systems	(3-1)
EC 4320	Design of Robust Control Systems	(3-2)
EC 4330 /4340	Navigation, Missile, and Avionics Systems	(3-2)
EC 4350	Nonlinear Control Systems	(3-2)
EC 4360	Adaptive Control Systems	(3-1)

### Machine Power Systems

EC 3130	Electrical Machinery Theory	(4-2)
EC 3150	Solid State Power Conversion	(3-2)
EC 4130	Advanced Electrical Machinery Systems	(4-2)
EC 4150	Advanced Solid State Power Conversion	(4-1)

### Network Engineering

EC 3550	Fiber Optic Systems	(3-1)
EC 3760	Information Operations Systems	(3-2)
EC 3710	Computer Communications Methods	(3-2)
EC 4700	Advanced Topics in Network Eng	(3-2)
EC 4710	High-Speed Networking	(3-2)
EC 4725	Advanced Telecommunication Systems Eng	(3-2)
EC 4945	Mobile Ad Hoc Wireless Networking	(3-2)
EC 4785	Internet Engineering	(3-1)

### Sensor Systems Engineering

EC3210	Introduction to Electro-Optical Engineering	(4-1)
EC 3600	Antennas & Propagation	(3-2)
EC 3610	Microwave Engineering	(3-2)
EC 3630	Radiowave Propagation	(3-2)
EC 4600	Advanced Topics in Sensor Systems	(3-0)

#### Radio Frequency Sensors

EC 4610	Radar Systems	(3-2)
EC 4630	RCS Prediction	(3-2)
EC 4640	Airborne Radar Mode Processing	(3-2)

#### Sensor Attack and Protection

EC 3700	Joint Network-enabled Electronic Warfare I	(3-2)
EC 4690/80(US)	Joint Network-enabled Electronic Warfare II	(3-2)
EC 4900	Digital Receivers and Sensor Technology	(3-2)

#### Underwater Sensors

EC 3450	Fundamentals of Ocean Acoustics	(4-0)
EC 4450	Sonar Systems Engineering	(4-1)

### Signal Processing Systems

EC 3400	Digital Signal Processing	(3-1)
EC 3410	Discrete-Time Random Signals	(3-2)
EC 4400	Advanced Topics in Signal Proc.	(3-0)
EC 4410	Speech Signal Processing	(3-1)
EC 4430	Multimedia Info & Communications	(3-1)
EC 4440	Statistical Digital Signal Processing	(3-2)
EC 4450	Sonar Systems Engineering	(4-1)
EC 4460	Artificial Neural Networks	(3-1)
EC 4480	Image Processing and Recognition	(3-2)
EC 4910	DSP for Wireless Communications	(3-2)

### Signals Intelligence

EC 3750	SIGINT Systems I	(3-2)
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