

COMPUTER ENGINEERING MASTER OF SCIENCE DEGREE PROGRAM CHECKLIST
for students starting in (or before) Fall 2016
COLUMBIA UNIVERSITY

Student: _____
 (please print)

UNI: _____

Courses **Pts.**

CHECKLIST

(Core courses)

1. _____ 30 points of credit
2. _____ 15 points core Computer Engineering (see back)
3. _____ 12 points 6000 level EE or CS courses (including joint courses)
4. _____ At least 6 points from each department (CSEE, EECS, & ECBM courses can count toward either department minimum).
5. _____ no credit for 3000 or lower level courses
6. _____ 2.7 GPA minimum

(Other courses, approved by an advisor)

7. _____ no more than 9 points research (e.g. ELEN E4998, ELEN E6001, COMS W4901)
8. _____ no more than 3 points of APPROVED nontechnical courses (including courses in SEAS with significant nontechnical content)
9. _____ completion within 5 years
10. _____ no grade of P or R
11. _____ no credit for courses with material typically found in undergraduate engineering programs such as STAT W4105 Probability

Total points:

Approved:

_____ for the Department

_____ for the Dean

_____ Date:

_____ Date:

Note: If some courses listed were taken during the BS, a copy of an approved BS excess sheet must be attached.

Core Computer Engineering Courses- for students starting in (or before) Fall 2016

COMS	W4113	Fundamentals of large-scale distributed systems	CSEE	E6180	Modeling and performance evaluation
COMS	W4115	Programming languages and translators	COMS	E6181	Advanced Internet services
COMS	W4118	Operating systems, I	EECS	E6321	Advanced digital electronic circuits
CSEE	W4119	Computer networks	EECS	E6322	VLSI Hardware Architecture for Signal Processing & Machine Learning (formerly ELEN E6920)
COMS	W4130	Principles and practice of parallel programming	ELEN	E6350	VLSI design laboratory
CSEE	W4140	Networking laboratory	ELEN	E6488	Optical interconnects and interconnection networks
COMS	W4180	Network security	ELEN	E6761	Computer communication networks, I
EECS	E4321	Digital VLSI circuits	ELEN	E6762	Computer communication networks, II*
EECS	E4340	Computer hardware design	EECS	E6765	Internet of Things - Systems & Physical Data Analytics (formerly ELEN E6765)
ELEN	E4350	VLSI design laboratory*	ELEN	E6770	Topic: Next generation networks
ELEN	E4702	Digital communications	CSEE	E6824	Parallel computer architecture
EECS	E4750	Hybrid Computing for Signal & Data Processing (formerly ELEN E4750)	CSEE	E6831	Sequential logic circuits*
EECS	E4764	Internet of Things – Intelligent & Conn. Systems (formerly ELEN E4902)	CSEE	E6832	Topics in logic design theory*
ELEN	E4810	Digital signal processing	CSEE	E6847	Distributed embedded systems
CSEE	W4823	Advanced logic design	ELEN	E6850	Visual information systems
CSEE	W4824	Computer architecture	ELEN	E6860	Advanced digital signal processing
ELEN	E4830	Digital image processing	CSEE	E6861	Computer-aided design of digital systems
CSEE	W4840	Embedded systems	CSEE	E6863	Formal Verification of HW & SW Systems (formerly COMS E6998 topic)
CSEE	W4868	System-on-chip Platforms (formerly CSEE E6868)	CSEE	E6868	Embedded scalable platforms (formerly COMS E6998 topic)
ELEN	E4896	Music signal processing	ELEN	E6950	Wireless and mobile networking, I
EECS	E4951	Wireless Networks & Systems (formerly ELEN E6951)	COMS	E6998	Topic: Advanced distributed systems
COMS	E6118	Operating systems, II*	COMS	E6998	Topic: Resilient hardware systems

* Occasionally Offered