# **EECS SUBJECT GROUPINGS**

#### **Advanced Departmental Laboratory Subjects**

6.1040	Software Design	18
6.1060	Software Performance Engineering	18
6.1100	Computer Language Engineering	12
6.1820[J]	Mobile and Sensor Computing	12
6.1920	Constructive Computer Architecture	12
6.2040	Analog Electronics Laboratory (CI-M)	12
6.2050	Digital Systems Laboratory (CI-M)	12
6.2060	Microcomputer Project Laboratory (CI-M)	12
6.2061	Microcomputer Project Laboratory - Independent Inquiry (CI-M)	15
6.2090	Solid-State Circuits	12
6.2092	Solid-State Circuits	12
6.2220	Power Electronics Laboratory (CI-M)	12
6.2221	Power Electronics Laboratory - Independent Inquiry (CI-M)	15
6.2370	Modern Optics Project Laboratory (CI-M)	12
6.2410	Quantum Engineering Platforms	12
6.2540	Nanotechnology: From Atoms to Systems	12
6.2600[J]	Micro/Nano Processing Technology (CI-M)	12
6.3100	Dynamical System Modeling and Control Design	12
6.4200[J]	Robotics: Science and Systems (CI-M)	12
6.4400	Computer Graphics	12
6.4420[J]	Computational Design and Fabrication	12
6.4550[J]	Interactive Music Systems	12
6.4570[J]	Creating Video Games	12
6.486o[J]	Medical Device Design (CI-M)	12
6.488o[J]	Biological Circuit Engineering Laboratory (CI-M)	12
6.5081	Multicore Programming	12
6.8301	Advances in Computer Vision (CI-M)	15
6.8611	Quantitative Methods for Natural Language Processing (CI-M)	15
6.8701	Computational Biology: Genomes, Networks, Evolution	12
6.8801[J]	Biomedical Signal and Image Processing	12

6.9030	Strobe Project Laboratory (CI-M)	12
6.C35[J]	Interactive Data Visualization and	12
	Society	

### Advanced Undergraduate Subjects 2

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6.1040	Software Design	18
6.1060	Software Performance Engineering	18
6.1100	Computer Language Engineering	12
6.1120	Dynamic Computer Language	12
	Engineering	
6.1420	Fixed Parameter and Fine-grained Computation	12
6.1600	Foundations of Computer Security	12
6.1810	Operating System Engineering	12
6.1820[J]	Mobile and Sensor Computing	12
6.1920	Constructive Computer Architecture	12
6.2040	Analog Electronics Laboratory (CI-M)	12
6.2050	Digital Systems Laboratory (CI-M)	12
6.2060	Microcomputer Project Laboratory (CI-M)	12
6.2061	Microcomputer Project Laboratory - Independent Inquiry (CI-M)	15
6.2090	Solid-State Circuits	12
6.2200	Electric Energy Systems	12
6.2220	Power Electronics Laboratory (CI-M)	12
6.2221	Power Electronics Laboratory - Independent Inquiry (CI-M)	15
6.2400	Introduction to Quantum Systems Engineering	12
6.2530	Introduction to Nanoelectronics	12
6.3100	Dynamical System Modeling and Control Design	12
6.3260[J]	Networks	12
6.3720	Introduction to Statistical Data Analysis	12
6.3730[J]	Statistics, Computation and Applications	12
6.4210	Robotic Manipulation (CI-M)	15
6.4400	Computer Graphics	12
6.4420[J]	Computational Design and Fabrication	12
6.4510	Engineering Interactive Technologies	12
6.4830[J]	Fields, Forces and Flows in Biological Systems	12
6.486o[J]	Medical Device Design (CI-M)	12
6.5081	Multicore Programming	12
6.5151	Large-scale Symbolic Systems	12

6.5831	Database Systems	12
6.5931	Hardware Architecture for Deep Learning	12
6.6331	Fundamentals of Photonics	12
6.7201	Optimization Methods	12
6.8301	Advances in Computer Vision (CI-M)	15
6.8371	Digital and Computational Photography	12
6.8611	Quantitative Methods for Natural Language Processing (CI-M)	15
6.8701	Computational Biology: Genomes, Networks, Evolution	12
6.8711[J]	Computational Systems Biology: Deep Learning in the Life Sciences	12
6.8721[J]	Principles of Synthetic Biology	12
6.8801[J]	Biomedical Signal and Image Processing	12
6.9000	Engineering for Impact	12
18.404	Theory of Computation	12

#### **Communication-Intensive in the Major Subjects**

6.1800	Computer Systems Engineering (CI-M)	12
6.1850	Computer Systems and Society (CI-M)	12
6.2040	Analog Electronics Laboratory (CI-M)	12
6.2050	Digital Systems Laboratory (CI-M)	12
6.2060	Microcomputer Project Laboratory (CI-M)	12
6.2061	Microcomputer Project Laboratory - Independent Inquiry (CI-M)	15
6.2220	Power Electronics Laboratory (CI-M)	12
6.2221	Power Electronics Laboratory - Independent Inquiry (CI-M)	15
6.2370	Modern Optics Project Laboratory (CI-M)	12
6.2600[J]	Micro/Nano Processing Technology (CI-M)	12
6.4200[J]	Robotics: Science and Systems (CI-M)	12
6.4210	Robotic Manipulation (CI-M)	15
6.4590[J]	Foundations of Information Policy (CI-M)	12
6.486o[J]	Medical Device Design (CI-M)	12
6.488o[J]	Biological Circuit Engineering Laboratory (CI-M)	12
6.8301	Advances in Computer Vision (CI-M)	15

6.8611	Quantitative Methods for Natural Language Processing (CI-M)	15
6.9030	Strobe Project Laboratory	12
6.UAR	Seminar in Undergraduate Advanced Research (CI-M)	6
6.UAT	Oral Communication (CI-M)	9

## **Independent Inquiry Subjects**

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6.1040	Software Design	18
6.1060	Software Performance Engineering	18
6.1100	Computer Language Engineering	12
6.1120	Dynamic Computer Language Engineering	12
6.1420	Fixed Parameter and Fine-grained Computation	12
6.1820[J]	Mobile and Sensor Computing	12
6.1850	Computer Systems and Society (CI-M)	12
6.2040	Analog Electronics Laboratory (CI-M)	12
6.2050	Digital Systems Laboratory (CI-M)	12
6.2061	Microcomputer Project Laboratory - Independent Inquiry (CI-M)	15
6.2221	Power Electronics Laboratory - Independent Inquiry (CI-M)	15
6.2370	Modern Optics Project Laboratory (CI-M)	12
6.2410	Quantum Engineering Platforms	12
6.3730[J]	Statistics, Computation and Applications	12
6.4120[J]	Computational Cognitive Science	12
6.4200[J]	Robotics: Science and Systems (CI-M)	12
6.4210	Robotic Manipulation (CI-M)	15
6.4420[J]	Computational Design and Fabrication	12
6.4510	Engineering Interactive Technologies	12
6.4530[J]	Principles and Practice of Assistive Technology	12
6.4590[J]	Foundations of Information Policy (CI-M)	12
6.488o[J]	Biological Circuit Engineering Laboratory (CI-M)	12
6.5151	Large-scale Symbolic Systems	12
6.8301	Advances in Computer Vision (CI-M)	15
6.8611	Quantitative Methods for Natural Language Processing (CI-M)	15
6.8701	Computational Biology: Genomes, Networks, Evolution	12

6.9000	Engineering for Impact	12
6.9030	Strobe Project Laboratory (CI-M)	12
6.C <sub>35</sub> [J]	Interactive Data Visualization and Society	12
6.UAR	Seminar in Undergraduate Advanced Research (CI-M)	6

## **Probability Grounding Subjects**

6.1200[J]	Mathematics for Computer Science	12
6.3700	Introduction to Probability	12
6.3800	Introduction to Inference	12
18.05	Introduction to Probability and Statistics	12
18.600	Probability and Random Variables	12