MichiganEngineering

Atmospheric, Oceanic and Space Sciences

Space Engineering Breadth Electives: Select any two courses from this list or from the concentration electives list. Students may petition to substitute other technical electives. (6-7 credit hours)

Course	Title	Credits
AERO-445	Flight Dynamics of Aerospace Vehicles	3
AERO-523	Computational Fluid Dynamics, I	3
AERO-532	Gaskinetic Theory	3
AERO-533	Combustion Processes	3
AERO-536	Electric Propulsion	3
AERO-565	Optimal Structural Design	3
AERO-573	Dynamics and Control of Spacecraft	3
AERO-575	Flight and Trajectory Optimization	3
AERO-579	Flight and Trajectory Optimization	3
AERO-584	Avionics, Navigation and Guidance	3
AERO-729	Hypersonics *(new course number forthcoming)*	3
AOSS-431	Radiowave Propagation and Link Design	4
AOSS-495	Thermosphere and Ionosphere	3
AOSS-532	Radiative Transfer - Thermal Processes	3
AOSS-565	Planetary Atmospheres	3
AOSS-595	Space Weather	3
AOSS-597	Space Plasma Physics	3
EECS-411	Microwave Circuits I	4
EECS-434	Principles of Photonics	4
EECS-435	Fourier Optics	3
EECS-438	Advanced Lasers and Optics Laboratory	4
EECS-450	Imaging Radar as a Remote Sensor	3
EECS-451	Digital Signal Processing and Analysis	3
EECS-453	Analog Communication Signals and Systems	3
EECS-455	Digital Communication Signals and Systems	3
EECS-460	Fundamentals of Control Systems	3
EECS-463	Modern Control Systems Design	3
EECS-470	Computer Architecture	3
EECS-517	Physical Processes in Plasmas	3
EECS-519	Plasma Generation and Diagnostics Laboratory	3
EECS-530	Electromagnetic Theory I	3
EECS-532	Microwave Remote Sensing I: Radiometry	3
EECS-533	Microwave Measurements Laboratory	3
EECS-561	Digital Control Systems	3
EECS-571	Principles of Real Time Computing	3
EECS-632	Microwave Remote Sensing II: Radar	3
NERS-571	Intermediate Plasma Physics I	3