OSSE/Mason Science Course Options: Fall 2024

Additional course details can be found at catalog.gmu.edu. *Mason cannot guarantee seats in every listed course.*

Subject	Course	Title	Prerequisite	Description	Credits	Schedule Type	Meets a Mason Core (gen ed) Requirement?	Online Interaction Mode	Meeting Days	Start and End Times	Course Notes
Astronomy	ASTR 111	The Solar System	None	Topics include history of astronomy, evolution of the solar system, properties of planets, scientific method, critical thinking, nature of light, and principles of telescope design.	3	Lecture	Y	Asynchronous	'-	-	Optional: Pair it with the laboratory- ASTR 112
Astronomy	ASTR 112	The Solar System Lab	None	Laboratory course associated with ASTR 111.	1	Lab	Y	Asynchronous	'-	-	Optional: Pair it with the lecture- ASTR 111
Biology	BIOL 102	GenBioA-Survey of BioDiv-Eco	None	This survey course introduces students to the evolution of biological diversity on Earth and explores how organisms interact with each another and their environment. Topics include the domains of life, how new species arise, evolution of populations and major topics in ecology and conservation.	0	Lab	Y	Synchronous	T	7:20 pm - 10:00 pm	Must be taken with the BIOL 102 lecture.
Biology	BIOL 102	GenBioA-Survey of BioDiv-Eco	None		4	Lecture	Y	Asynchronous	'-	-	Must be taken with the BIOL 102 lab.
Biology	BIOL 103	GenBioB-Survey of Cell-MolBio	None	This survey of Cell and Molecular biology provides students with an understanding of basic cellular biology and an appreciation of the impact of molecular biology research on current societal challenges. Topics include how life emerged on early earth, cell structure and function, genes and heredity, plus viruses and genetic engineering.	3	Lecture	Y	Asynchronous	'-	-	Optional: Pair it with the laboratory- BIOL 105
Biology	BIOL 105	GenBioB-Cell-MolBio Lab only	BIOL 103 must have been taken prior or can be taken concurrently.	Laboratories that cover the chemical basis of life, the structure and function of the cell, Mendelian and human genetics.	1	Lab	Y	Synchronous	W	7:20 pm - 10:00 pm	
Computatnl and Data Sciences	CDS 101	Intro Computatnl/Data Sciences	Courses in algebra, geometry, trigonometry	Introduction to the use of computers in scientific discovery through simulations and data analysis. Covers historical development and current trends in the field.	3	Lecture	Y	Asynchronous	'-	-	Optional: Pair it with the lab- CDS 102
Computatnl and Data Sciences	CDS 102	Intro Comp/Data Sciences Lab	CDS 101 must have been taken prior or can be taken concurrently.	Experiments in computational and data sciences explore the connections between on-going advances in the natural sciences and the rapid advances in computing and data handling. Lab exercises demonstrate the use of computers in analyzing data, in modeling science problems, and in creating numerical simulations across the science disciplines.	1	Lab	Y	Asynchronous	'-	-	
Environ Science and Policy	EVPP 108	Ecosphere-Intro Env Sci I-Lect	None	This course studies components and interactions that make up natural systems of our home planet. It teaches basic concepts in biological, chemical, physical, and earth sciences in integrated format with lecture, laboratory, and field exercises.	3	Lecture	Y	Asynchronous	'-	-	Optional: Pair it with the lab- EVPP 109
Environ Science and Policy	EVPP 109	Ecosphere-Intro Env Sci I-Lab	EVPP 108 must have been taken prior or can be taken concurrently.	This course studies components and interactions that make up natural systems of our home planet. It teaches basic concepts in biological, chemical, physical, and earth sciences in a laboratory format.	1	Lab	Y	Asynchronous	'-	-	
Environ Science and Policy	EVPP 201	Env and You: Iss-21st Cent	None	Introduces broad aspects of human-environmental interactions in the contemporary world. Topics range broadly from global populations and wastewater treatment to environmental law, and genetic engineering. Includes both science and science policy of the environment.	3	Lecture	Y	Asynchronous	'-	-	
Geography & Geoinformation Sci	GGS 101	Major World Regions	None	Patterns, problems, and prospects of the world's principal human-geographic regions. Emphasizes areal differentiation and role of geographic differences in interpreting current world scene.	3	Lecture	Y	Asynchronous	'-	-	
Geography & Geoinformation Sci	GGS 102	Physical Geography	None	Interrelated processes affecting global distribution and character of climate, soils, vegetation, hydrology, and landforms. Includes elements of mapping.	3	Lecture	Y	Asynchronous	'-	-	
Geography & Geoinformation Sci	GGS 103	Human Geography	None	Overview of major ideas and approaches to studying spatial aspects of human social and behavioral systems. Surveys distribution and movement of human populations, characteristics and distribution of cultural mosaics, patterns of economic interdependence, and study of forces of cooperation and conflict among people from global perspective.	3	Lecture	Y	Asynchronous	'-	-	
Mathematics	MATH 106	Quantitative Reasoning	None	Quantitative skills for real world. Topics include critical thinking, modeling by functions, graphs, growth, scaling, probability, and statistics.	3	Lecture	Y	Asynchronous	'-	-	
Mathematics	MATH 111	Linear Math Modeling	None	Matrix algebra, systems of linear equations, Markov chains, difference equations, and data fitting.	4	Lecture	Y	Asynchronous	'-	-	
Neuroscience	NEUR 101	Introduction to Neuroscience	None	This course is for students interested in the science of the brain from its evolutionary origins to its role in health and behavior. We examine systems that make up the brain from neurons to circuits. We explore trends in neuroscience experimentation including neuroimaging, computational neuroscience and neuropharmacology.	3	Lecture	Y	Asynchronous	'-	-	