UAEU كلية العلوم College of Science

جامعة الإمارات العربية المتحدة United Arab Emirates University

Bachelor of Science in Physics Model Study Plan (2022-2023 Cohort onwards)

Concentration: General Physics

For Students Admitted to the University from the Fall Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Fall)	PHYS105	General Physics I	3	Gen Ed Course (Cluster 3: Area 1: Natural Sciences)
		PHYS135	General Physics Lab I	1	Major 1
		MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)
		CHEM111	General Chemistry I	3	Support course
		CSBP112	Introduction To Programming	3	Support course
		ESPU102	Introduction to Academic English For Science	3	Gen Ed Course (Cluster 1: Area 2: English Communication)
				16	
	2 (Spring)	PHYS110	General Physics II	3	Major 1
		PHYS140	General Physics Lab II	1	Major 1
		MATH110	Calculus II	3	Support course
		PHYS220	Thermal Physics	3	Major 1
		MATH140	Linear Algebra I	3	Support course
		GEIT112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)
				16	
Year 2	3 (Fall)	PHYS235	Waves and Optics	3	Major 1
		PHYS231	Electronics Fundamentals	3	Major 1
		PHYS255	Mathematical Physics	3	Concentration
		MATH275	Ordinary Differential Equations	3	Support course
		PHY180	Critical Thinking	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)
				15	
	4 (Spring)	PHYS205	Intermediate Physics Lab I	1	Major 1
		PHYS250	Modern Physics	3	Major 1
		PHYS262	Classical Mechanics	3	Major 1
		STAT210	Probability and Statistics	3	Support course
		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)
				13	
Year 3	5 (Fall)	PHYS210	Intermediate Physics Lab II	1	Concentration
		PHYS335	Electromagnetic Theory	3	Major 1
		PHYS312	Statistical Physics	2	Concentration
		Elective	Student choice	3	Free Elective
		PSY313	Educational Psychology	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)
				15	
	6 (Spring)	Elective	Student choice	3	Major Elective
		PHYS355	Quantum Mechanics	3	Concentration
		Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Free Elective
		GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)
		Elective	Student choice	3	Support course
				18	
Year 4	7 (Fall)	PHYS470	Solid State Physics	3	Concentration
		PHYS483	Introductory Nuclear Physics	3	Concentration
		Elective	Student choice	3	Major Elective
		HSS105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
		ISLM100/ISLM101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
				15	
	8 (Spring)	PHYS494	Research Project	3	Major 1
		PHYS500	Internship	6	Internship
				9	

Bachelor of Science in Physics Model Study Plan (2022-2023 Cohort onwards)

Concentration: General Physics

For Students Admitted to the University from the Spring Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Spring)	PHYS105	General Physics I	3	Gen Ed Course (Cluster 3: Area 1: Natural Sciences)
		PHYS135	General Physics Lab I	1	Major 1
		MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)
		CHEM111	General Chemistry I	3	Support course
		CSBP112	Introduction To Programming	3	Support course
		ESPU102	Introduction to Academic English For Science	3	Gen Ed Course (Cluster 1: Area 2: English Communication)
				16	
	2 (Fall)	PHYS110	General Physics II	3	Major 1
		PHYS140	General Physics Lab II	1	Major 1
		MATH110	Calculus II	3	Support course
		PHYS235	Waves and Optics	3	Major 1
		MATH140	Linear Algebra I	3	Support course
		GEIT112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)
				16	
Year 2	3 (Spring)	PHYS220	Thermal Physics	3	Major 1
		PHYS231	Electronics Fundamentals	3	Major 1
		PHYS250	Modern Physics	3	Major 1
		MATH275	Ordinary Differential Equations	3	Support course
		PHY180	Critical Thinking	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)
				15	
	4 (Fall)	PHYS210	Intermediate Physics Lab II	1	Major 1
		PHYS255	Mathematical Physics	3	Major 1
		Elective	Student choice	3	Major Elective
		STAT210	Probability and Statistics	3	Major 1
		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)
				13	
Year 3	5 (Spring)	PHYS205	Intermediate Physics Lab I	1	Major 1
		PHYS355	Quantum Mechanics	3	Major 1
		PHYS262	Classical Mechanics	3	Major 1
		Elective	Student choice	3	Free Elective
		PSY313	Educational Psychology	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)
				15	
	6 (Fall)	PHYS312	Statistical Physics	2	Major 1
		PHYS335	Electromagnetic Theory	3	Major 1
		Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Free Elective
		GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)
		Elective	Student choice	3	Support course
				17	
Year 4	7 (Spring)	PHYS470	Solid State Physics	3	Major 1
		PHYS483	Introductory Nuclear Physics	3	Major 1
		Elective	Student choice	3	Major Elective
		HSS105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
		ISLM100/ISLM101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
				15	
	8 (Fall)	PHYS494	Research Project	3	Major 1
		PHYS500	Internship	6	Internship
				9	

Bachelor of Science in Physics Model Study Plan (2022-2023 Cohort onwards)

Concentration: Space Science

For Students Admitted to the University from the Fall Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Fall)	PHYS105	General Physics I	3	Gen Ed Course (Cluster 3: Area 1: Natural Sciences)
		PHYS135	General Physics Lab I	1	Major 1
		MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)
		CHEM111	General Chemistry I	3	Support course
		CSBP112	Introduction To Programming	3	Support course
		ESPU102	Introduction to Academic English For Science	3	Gen Ed Course (Cluster 1: Area 2: English Communication)
				16	
	2 (Spring)	PHYS110	General Physics II	3	Major 1
		PHYS140	General Physics Lab II	1	Major 1
		MATH110	Calculus II	3	Support course
		PHYS220	Thermal Physics	3	Major 1
		MATH140	Linear Algebra I	3	Support course
		GEIT112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)
				16	
Year 2	3 (Fall)	PHYS205	Intermediate Physics Lab I	1	Major 1
		PHYS235	Waves and Optics	3	Major 1
		PHYS231	Electronics Fundamentals	3	Major 1
		Elective	Student choice	3	General Education Choice
		MATH275	Ordinary Differential Equations	3	Support course
		PHY180	Critical Thinking	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)
				16	
	4 (Spring)	PHYS200	Introduction to Space Sciences	3	Concentration
		STAT210	Probability and Statistics	3	Support course
		PHYS250	Modern Physics	3	Major 1
		PHYS262	Classical Mechanics	3	Major 1
		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)
		Elective	Student choice	3	Free Elective
				18	
Year 3	5 (Fall)	PHYS270	Celestial Mechanics	3	Concentration
		PHYS335	Electromagnetic Theory	3	Major 1
		Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Gen Ed Course (Cluster 1: Area 1: Humanities and Fine Arts)
		Elective	Student choice	3	Free Elective
				15	
	6 (Spring)	PHYS310	Space Missions	3	Concentration
		PHYS320	Spacecraft Instrument Science	3	Concentration
		GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)
		Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Major Elective
				15	
Year 4	7 (Fall)	PHYS410	Space Applications I	3	Concentration
		PHYS420	Space Applications II	3	Concentration
		PSY313	Educational Psychology	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
		ISLM100/ISLM101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
		HSS105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
				15	
	8 (Spring)	PHYS494	Research Project	3	Major 1
		PHYS500	Internship	6	Internship
				9	

Bachelor of Science in Physics Model Study Plan (2024-2025 Cohort onwards)

Concentration: General Physics

For Students Admitted to the University from the Fall Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Fall)	PHYS105	General Physics I	3	Gen Ed Course (Cluster 3: Area 1: Natural Sciences)
		PHYS135	General Physics Lab I	1	Major 1
		MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)
		CHEM111	General Chemistry I	3	Support course
		CSBP119	Algorithms and Problem Solving	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)
		ESPU102	Introduction to Academic English For Science	3	Gen Ed Course (Cluster 1: Area 2: English Communication)
				16	
	2 (Spring)	PHYS110	General Physics II	3	Major 1
		PHYS140	General Physics Lab II	1	Major 1
		MATH110	Calculus II	3	Support course
		PHYS220	Thermal Physics	3	Major 1
		MATH140	Linear Algebra I	3	Support course
		GEIT112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)
				16	
Year 2	3 (Fall)	PHYS235	Waves and Optics	3	Major 1
		PHYS231	Electronics Fundamentals	3	Major 1
		PHYS255	Mathematical Physics	3	Concentration
		MATH275	Ordinary Differential Equations	3	Support course
		CSBP224	Introduction to Data Science	3	Support course
				15	
	4 (Spring)	PHYS205	Intermediate Physics Lab I	1	Major 1
		PHYS250	Modern Physics	3	Major 1
		PHYS262	Classical Mechanics	3	Major 1
		STAT210	Probability and Statistics	3	Support course
		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)
				13	
Year 3	5 (Fall)	PHYS210	Intermediate Physics Lab II	1	Concentration
		PHYS335	Electromagnetic Theory	3	Major 1
		PHYS312	Statistical Physics	2	Concentration
		Elective	Student choice	3	Free Elective
		PSY313	Educational Psychology	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)
				15	
	6 (Spring)	Elective	Student choice	3	Major Elective
		PHYS355	Quantum Mechanics	3	Concentration
		Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Free Elective
		GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)
		Elective	Student choice	3	Support course
				18	
Year 4	7 (Fall)	PHYS470	Solid State Physics	3	Concentration
		PHYS483	Introductory Nuclear Physics	3	Concentration
		Elective	Student choice	3	Major Elective
		GEEM105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
		GEIS100/GEIS101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
				15	
	8 (Spring)	PHYS494	Research Project	3	Major 1
		PHYS500	Internship	6	Internship
				9	

Bachelor of Science in Physics Model Study Plan (2024-2025 Cohort onwards)

Concentration: General Physics

For Students Admitted to the University from the Spring Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Spring)	PHYS105	General Physics I	3	Gen Ed Course (Cluster 3: Area 1: Natural Sciences)
		PHYS135	General Physics Lab I	1	Major 1
		MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)
		CHEM111	General Chemistry I	3	Support course
		CSBP119	Algorithms and Problem Solving	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)
		ESPU102	Introduction to Academic English For Science	3	Gen Ed Course (Cluster 1: Area 2: English Communication)
				16	
	2 (Fall)	PHYS110	General Physics II	3	Major 1
		PHYS140	General Physics Lab II	1	Major 1
		MATH110	Calculus II	3	Support course
		PHYS235	Waves and Optics	3	Major 1
		MATH140	Linear Algebra I	3	Support course
		GEIT112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)
				16	
Year 2	3 (Spring)	PHYS220	Thermal Physics	3	Major 1
		PHYS231	Electronics Fundamentals	3	Major 1
		MATH275	Ordinary Differential Equations	3	Support course
		CSBP224	Introduction to Data Science	3	Support course
				15	
	4 (Fall)	PHYS210	Intermediate Physics Lab II	1	Major 1
		PHYS255	Mathematical Physics	3	Major 1
		Elective	Student choice	3	Major Elective
		STAT210	Probability and Statistics	3	Major 1
		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)
				13	
Year 3	5 (Spring)	PHYS205	Intermediate Physics Lab I	1	Major 1
		PHYS355	Quantum Mechanics	3	Major 1
		PHYS262	Classical Mechanics	3	Major 1
		Elective	Student choice	3	Free Elective
		PSY313	Educational Psychology	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)
				15	
	6 (Fall)	PHYS312	Statistical Physics	2	Major 1
		PHYS335	Electromagnetic Theory	3	Major 1
		Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Free Elective
		GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)
		Elective	Student choice	3	Support course
				17	
Year 4	7 (Spring)	PHYS470	Solid State Physics	3	Major 1
		PHYS483	Introductory Nuclear Physics	3	Major 1
		Elective	Student choice	3	Major Elective
		GEEM105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
		GEIS100/GEIS101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
				15	
	8 (Fall)	PHYS494	Research Project	3	Major 1
		PHYS500	Internship	6	Internship
				9	

UAEU كلية العلوم College of Science

جامعة الإمارات العربية المتحدة United Arab Emirates University

Bachelor of Sicience in Physics Model Study Plan (2024-2025 Cohort onwards)

Concentration: Space Science

For Students Admitted to the University from the Fall Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Fall)	PHYS105	General Physics I	3	Gen Ed Course (Cluster 3: Area 1: Natural Sciences)	2 (Spring)	PHYS110	General Physics II	3	Major 1
		PHYS135	General Physics Lab I	1	Major 1		PHYS140	General Physics Lab II	1	Major 1
		MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)		MATH110	Calculus II	3	Support course
		CHEM111	General Chemistry I	3	Support course		PHYS220	Thermal Physics	3	Major 1
		CSBP119	Algorithms and Problem Solving	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)		MATH140	Linear Algebra I	3	Support course
		ESPU102	Introduction to Academic English For Science	3	Gen Ed Course (Cluster 1: Area 2: English Communication)		GEIT112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)
				16					16	
Year 2	3 (Fall)	PHYS205	Intermediate Physics Lab I	1	Major 1	4 (Spring)	PHYS200	Introduction to Space Sciences	3	Concentration
		PHYS235	Waves and Optics	3	Major 1		STAT210	Probability and Statistics	3	Support course
		PHYS231	Electronics Fundamentals	3	Major 1		PHYS250	Modern Physics	3	Major 1
		Elective	Student choice	3	General Education Choice		PHYS262	Classical Mechanics	3	Major 1
		MATH275	Ordinary Differential Equations	3	Support course		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)
		CSBP224	Introduction to Data Science	3	Support course		Elective	Student choice	3	Free Elective
				16					15	
Year 3	5 (Fall)	PHYS270	Celestial Mechanics	3	Concentration	6 (Spring)	PHYS310	Space Missions	3	Concentration
		PHYS335	Electromagnetic Theory	3	Major 1		PHYS320	Spacecraft Instrument Science	3	Concentration
		Elective	Student choice	3	Major Elective		GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)
		Elective	Student choice	3	Free Elective		Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)		Elective	Student choice	3	Major Elective
				15					15	
Year 4	7 (Fall)	PHYS410	Space Applications I	3	Concentration	8 (Spring)	PHYS494	Research Project	3	Major 1
		PHYS420	Space Applications II	3	Concentration		PHYS500	Internship	6	Internship
		PSY313	Educational Psychology	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)					
		GIES100/GIES101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)					
		GIEM105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)					
				15					9	

Bachelor of Sicience in Physics Model Study Plan (2025-2026 Cohort onwards)

Concentration: General Physics

For Students Admitted to the University from the Fall Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Fall)	PHYS105	General Physics I	3	Specialization	2 (Spring)	PHYS110	General Physics II	3	Specialization
		PHYS135	General Physics Lab I	1	Specialization		PHYS140	General Physics Lab II	1	Specialization
		MATH105	Calculus I	3	Support course		MATH110	Calculus II	3	Support course
		CHEM111	General Chemistry I	3	Support course		PHYS220	Thermal Physics	3	Specialization
		GENE101	Academic English for Humanities and STEM	3	Gen. Ed. Theme 2: Academic Language Proficiency		GEEM110	Contemporary Emirati Studies	3	Gen. Ed. Theme 1: UAE National Identity
		GEIT113	Introduction to Artificial Intelligence	3	Gen. Ed. Theme 3: Innovation		CSBP119	Algorithms and Problem Solving	3	Support course
							CSBP121	Programming Lab I	1	Support course
				16					17	
Year 2	3 (Fall)	PHYS233	Fundamentals of Electronics	3	Specialization	4 (Spring)	PHYS205	Intermediate Physics Lab I	1	Specialization
		PHYS234	Electronics Lab	1	Specialization		PHYS250	Modern Physics	3	Specialization
		PHYS235	Waves and Optics	3	Specialization		PHYS262	Classical Mechanics	3	Concentration
		PHYS255	Mathematical Physics	3	Specialization		STAT210	Probability and Statistics	3	Support course
		MATH140	Linear Algebra I	3	Support course		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen. Ed. Theme 4: Entrepreneurship
							Elective	Student choice	3	Free Elective
				13					16	
Year 3	5 (Fall)	GESU121	Sustainability	3	Gen. Ed. Theme 5: Sustainability	6 (Spring)	Elective	Student choice	3	Major Elective
		Elective	Student choice	3	Elective Support		Elective	Student choice	3	Elective Support
		Elective	Student choice	3	Major Elective		Elective	Student choice	3	Free Elective
		CSBP224	Introduction to Data Science	3	Support course		Elective	Student choice	3	Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11
		PHYS313	Statistical Physics	3	Concentration		PHYS355	Quantum Mechanics	3	Concentration
		PHYS335	Electromagnetic Theory	3	Specialization		PHYS210	Intermediate Physics Lab II	1	Specialization
				15					16	
Year 4	7 (Fall)	PHYS470	Solid State Physics	3	Concentration	8 (Spring)	PHYS494	Research Project	3	Specialization
		PHYS483	Introductory Nuclear Physics	3	Concentration		PHYS500	Internship	6	Internship
		Elective	Student choice	3	Major Elective					
		Elective	Student choice	3	Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11					
				12					9	

Bachelor of Sicience in Physics Model Study Plan (2025-2026 Cohort onwards)

Concentration: Space Science

For Students Admitted to the University from the Fall Semester

Total Degree Credit hours: 120

	Semester	Course Code	Course Title	CH	Course type	Semester	Course Code	Course Title	CH	Course type
Year 1	1 (Fall)	PHYS105	General Physics I	3	Specialization	2 (Spring)	PHYS110	General Physics II	3	Specialization
		PHYS135	General Physics Lab I	1	Specialization		PHYS140	General Physics Lab II	1	Specialization
		MATH105	Calculus I	3	Support course		PHYS220	Thermal Physics	3	Support course
		CHEM111	General Chemistry I	3	Support course		CSBP119	Algorithms and Problem Solving	3	Specialization
		GEIT113	Introduction to Artificial Intelligence	3	Gen. Ed. Theme 3: Innovation		CSBP121	Programming Lab I	1	Support course
		GENE101	Academic English for Humanities and STEM	3	Gen. Ed. Theme 2: Academic Language Proficiency		GEEM110	Contemporary Emirati Studies	3	Gen. Ed. Theme 1: UAE National Identity
							MATH110	Calculus II	3	Specialization
				16					17	
Year 2	3 (Fall)	PHYS233	Fundamentals of Electronics	3	Specialization	4 (Spring)	PHYS205	Intermediate Physics Lab I	1	Specialization
		PHYS234	Electronics Lab	1	Specialization		PHYS200	Introduction to Space Sciences	3	Concentration
		PHYS235	Waves and Optics	3	Specialization		PHYS250	Modern Physics	3	Specialization
		PHYS255	Mathematical Physics	3	Specialization		GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen. Ed. Theme 4: Entrepreneurship
		MATH140	Linear Algebra I	3	5		Elective	Student choice	3	Free Elective
		MATH275	Ordinary Differential Equations	3	Support course		STAT210	Probability and Statistics	3	Support course
				16					16	
Year 3	5 (Fall)	PHYS270	Celestial Mechanics	3	Concentration	6 (Spring)	PHYS410	Space Applications I	3	Concentration
		PHYS310	Space Missions	3	Concentration		PHYS210	Intermediate Physics Lab II	1	Free Elective
		PHYS335	Electromagnetic Theory	3	Specialization		Elective	Student choice	3	Free Elective
		CSBP224	Introduction to Data Science	3	Support course		Elective	Student choice	3	Major Elective
		GESU121	Sustainability	3	Gen. Ed. Theme 5: Sustainability		Elective	Student choice	3	Support Elective
		Elective	Student choice	3	Support Elective		Elective	Student choice	3	Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11
				15					16	
Year 4	7 (Fall)	PHYS316	Spacecraft Instrument Science	3	Concentration	8 (Spring)	PHYS494	Research Project	3	Specialization
		PHYS420	Space Applications II	3	Concentration		PHYS500	Internship	6	Internship
		Elective	Student choice	3	Major Elective					
		Elective	Student choice	3	Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11					
				12					9	