



Bachelor of Sicience 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

| 1 | | General Physics I | | Gen Ed Course (Cluster 3: Area 1: Natural Sciences) | | | | | |
|-------|--------------------------------|--|--|---|--|---|--|--|--|
| 1 | PHYS135 | | | | | | | | Major 1 |
| - | | General Physics Lab I | | Major 1 | 2 | | | | Major 1 |
| | MATH105 | Calculus I | 3 | Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning) | ~ | MATH110 | | | Support course |
| - 111 | CHEM111 | General Chemistry I | | Support course | 10 | PHYS220 | | | Major 1 |
| all) | | Introduction To Programming | | Support course | (Spring) | 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 | |
| 1 | | | | | 4 | | | | Major 1 |
| 3 | PHYS231 | Electronics Fundamentals | 3 | Major 1 | 4 | PHYS250 | | | Major 1 |
| | | | 3 | Concentration | | | | | Major 1 |
| all\ | | | | | (Spring) | | | | Support course |
| uiij | PHI180 | Critical Thinking | 3 | Gen Ed Course (Cluster 1: Area 4: Critical Thinking) | (Spring) | GEIE222 | fundamentals of Innovation and Entrepreneurship | 3 | Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship) |
| | | | 15 | | | | | 13 | |
| | PHYS210 | Intermediate Physics Lab II | 1 | Concentration | | Elective | Student choice | 3 | Major Elective |
| 5 | PHYS335 | Electromagnetic Theory | 3 | Major 1 | | PHYS355 | | | Concentration |
| , | | | | | U | | | | Major Elective |
| | | | | Free Elective | /a | Elective | Student choice | | Free Elective |
| all) | | | | Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences) | (Spring) | GESU121 | | | Gen Ed Course (Cluster 3: Area 2: Sustainability) |
| . , | Elective | Student choice | 3 | Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts) | (-1- 0) | Elective | Student choice | 3 | Support course |
| | | | 15 | | | | | 18 | |
| 7 | | | 3 | Concentration | | PHYS494 | | | Major 1 |
| / | | | | | 8 | PHYSS00 | Internship | 60 | Internship |
| | | | | | | | | | |
| all\ | | | | | (Snring) | | | | |
| uiij | ISLM100/ISLM101 | Islamic Culture/Biography of the Prophet "Sira" | 3 | Gen Ed Course (Cluster 2: Area 4: Islamic Culture) | (Shiiig) | | | | |
| | all) 5 all) 7 all) | PHYS235 PHYS231 PHYS231 PHYS231 PHYS231 PHYS231 PHYS235 PHYS255 PHYS255 PHYS355 PHYS355 PHYS355 PHYS355 PHYS355 Electric PHYS547 PHYS547 PHYS547 PHYS548 Electric PHYS548 Electric PHYS548 PHYS548 | CHUID2 Introduction to Authoris Engine Par Sources | P01202 Introduction backwise English for Science 1 | First Firs | Proficial Investment in Audente English for Some 1 jeth of Control (American English Communication) 1 | Figure Internation to Audient Depth for the Court Charlet Area 2. English Communications Control Charlet Area 2. English Communications Control Charlet Area 2. English Communications Control Charlet Area 2. English Communications Area 2. Englis | Principle Internation to Audentic Engine for Control Published 1 Anal 2 Triglian Communications V V Central Published Resolutions V Central Published Resolution | Principle |

Bachelor of Sicience 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 | 2 | Course type | Semester | Course Code | Course Title | 2 | |
|------------|-----------|-----------------|---|----|---|----------|-------------|---|----|--|
| | | PHYS105 | General Physics I | | Gen Ed Course (Cluster 3: Area 1: Natural Sciences) | | PHYS110 | | | Major 1 |
| 7 | 1 | PHYS135 | General Physics Lab I | | Major 1 | 2 | PHYS140 | General Physics Lab II | | Major 1 |
| ro. | - | MATH105 | Calculus I | 3 | Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning) | ~ | MATH110 | Calculus II | | Support course |
| 8 / | | CHEM111 | General Chemistry I | 3 | Support course | /E - IIV | PHYS235 | Waves and Optics | | Major 1 |
| (| Spring) | CS8P112 | Introduction To Programming | | Support course | (Fall) | MATH140 | | 33 | Support course |
| | . 0, | ESPU102 | Introduction to Academic English For Science | 3 | Gen Ed Course (Cluster 1: Area 2: English Communication) | ٠, , | GEIT112 | fourth Industrial Revolution | 3 | Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution) |
| | | | | 16 | | | | | 16 | |
| 8 | - | | Thermal Physics | 3 | Major 1 | | PHYS210 | Intermediate Physics Lab II | | Major 1 |
| æ | 3 | | Electronics Fundamentals | | Major 1 | 4 | PHYS255 | Mathematical Physics | | Major 1 |
| ≆ | | | Modern Physics | | Major 1 | | Elective | Student choice | | Major Elective |
| 1 | Spring) | | Ordinary Differential Equations | | Support course | (Fall) | STAT210 | | | Major 1 |
| 1 | Jpi iiig/ | PHI180 | Critical Thinking | 33 | Gen Ed Course (Cluster 1: Area 4: Critical Thinking) | (1 a11) | GEIE222 | fundamentals of Innovation and Entrepreneurship | 33 | Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship) |
| | | | | 15 | | | | | 13 | |
| | | | Intermediate Physics Lab I | | Major 1 | 6 | | Statistical Physics | | Major 1 |
| | 5 | | Quantum Mechanics | | Major 1 | | | Electromagnetic Theory | | Major 1 |
| | , | | Classical Mechanics | | Major 1 | • | Elective | Student choice | | Major Elective |
| | | | Student choice | | Free Elective | /E - IIV | Elective | | | Free Elective |
| 日 (| Spring) | | Educational Psychology | | Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences) | (Fall) | GESU121 | Sustainability | | Gen Ed Course (Cluster 3: Area 2: Sustainability) |
| a, | . 0, | Elective | Student choice | 3 | Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts) | , , | Elective | Student choice | 3 | Support course |
| > | | | | 16 | | | | | 17 | |
| | | | Solid State Physics | | Major 1 | 0 | PHYS494 | | | Major 1 |
| 2 | / | | Introductory Nuclear Physics | | Major 1 | 8 | PHYSS00 | Internship | 6 | Internship |
| ro. | | | Student choice | | Major Elective | | | | | |
| 8 (| Spring) | | Emirates Studies | | Gen Ed Course (Cluster 2: Area 3: Emirates Society) | (Fall) | | | | |
| | Jpi iiig/ | ISLM100/ISLM101 | Islamic Culture/Biography of the Prophet "Sira" | 3 | Gen Ed Course (Cluster 2: Area 4: Islamic Culture) | (1 a11) | | | | |
| | | | | | | | | | | |

Bachelor of Sicience 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 | СН | | Semester | Course Code | | СН | |
|----|----------|-------------|---|----|---|-----------|-------------|------------------------------|----|--|
| | | PHYS105 | General Physics I | 3 | Gen Ed Course (Cluster 3: Area 1: Natural Sciences) | | PHYS110 | General Physics II | 3 | Major 1 |
| ₩. | 1 | PHYS135 | General Physics Lab I | | Major 1 | 2 | PHYS140 | General Physics Lab II | 1 | Major 1 |
| দ | _ | MATH105 | Calculus I | 3 | Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning) | _ | MATH110 | Calculus II | 3 | Support course |
| ä | /= II) | CHEM111 | General Chemistry I | 3 | Support course | /a · \ | PHYS220 | Thermal Physics | 3 | Major 1 |
| > | (Fall) | CS8P112 | Introduction To Programming | | Support course | (Spring) | MATH140 | | | Support course |
| | , | ESPU102 | Introduction to Academic English For Science | 3 | Gen Ed Course (Cluster 1: Area 2: English Communication) | (-1- 0) | GEIT112 | Fourth Industrial Revolution | 3 | Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution) |
| | | | | 16 | | | | | 16 | |
| | | PHYS205 | Intermediate Physics Lab I | | Major 1 | | PHYS200 | | | Concentration |
| ~ | 2 | PHYS235 | Waves and Optics | 3 | Major 1 | 1 | STAT210 | Probability and Statistics | 3 | Support course |
| ē | 3 | PHYS231 | Electronics Fundamentals | | Major 1 | - | | | | Major 1 |
| ¥ | /= II) | Elective | Student choice | 3 | General Education Choice | /a · \ | PHY5262 | | | Major 1 |
| | (Fall) | MATH275 | Ordinary Differential Equations | | Support course | (Spring) | | | | Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship) |
| | , | PHI180 | Critical Thinking | 3 | Gen Ed Course (Cluster 1: Area 4: Critical Thinking) | (-1- 0) | Elective | | | Free Elective |
| | | | | 16 | | | | | 18 | |
| 33 | _ | PHYS270 | Celestial Mechanics | | Concentration | - | | | | Concentration |
| 늘 | 5 | PHYS335 | Electromagnetic Theory | | Major 1 | ь | PHY5320 | | | Concentration |
| ě | | Elective | Student choice | | Major Elective | - | GESU121 | | | Gen Ed Course (Cluster 3: Area 2: Sustainability) |
| > | (Fall) | Elective | Student choice | | Free Elective | (Spring) | | | | Major Elective |
| | (i aii) | Elective | Student choice | | Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts) | (Spillig) | Elective | | | Major Elective |
| | | | | 15 | | | | | 15 | |
| | | PHYS410 | Space Applications I | | Concentration | 0 | PHYS494 | Research Project | 3 | Major 1 |
| Æ | / | PHYS420 | Space Applications II | | Concentration | 8 | PHYSS00 | Internship | 6 | Internship |
| œ. | | P5Y313 | Educational Psychology | | Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences) | | | | | |
| ž. | (Fall) | | Islamic Culture/Biography of the Prophet "Sira" | | Gen Ed Course (Cluster 2: Area 4: Islamic Culture) | (Spring) | | | | |
| | (i aii) | H\$\$105 | Emirates Studies | 3 | Gen Ed Course (Cluster 2: Area 3: Emirates Society) | (Spring) | | | | |

Bachelor of Sicience 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 | СН | Course type | Semester | Course Code | Course Title | СН | Course type |
|--------|----------|-----------------|---|----|---|----------|-------------|---------------------|----|--|
| | | PHYS105 | General Physics I | | Gen Ed Course (Cluster 3: Area 1: Natural Sciences) | | | | | Major 1 |
| 1 | 1 | PHYS135 | General Physics Lab I | | Major 1 | 2 | PHYS140 | | | Major 1 |
| Ξ. | - | MATH105 | Calculus I | 3 | Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning) | _ | MATH110 | Calculus II | 3 | Support course |
| ĕ | /E - IIV | CHEM111 | General Chemistry I | | Support course | 10 | PHYS220 | | | Major 1 |
| > | (Fall) | CS8P119 | Algorithms and Problem Solving | | Gen Ed Course (Cluster 1: Area 4: Critical Thinking) | (Spring) | MATH140 | | | Support course |
| | , | ESPU102 | Introduction to Academic English For Science | 3 | Gen Ed Course (Cluster 1: Area 2: English Communication) | | GEIT112 | | | Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution) |
| | | | | 16 | | | | | 16 | |
| | 1 | PHYS235 | Waves and Optics | | Major 1 | | PHYS205 | | | Major 1 |
| \sim | 3 | PHYS231 | Electronics Fundamentals | | Major 1 | 4 | PHYS250 | | | Major 1 |
| ē | - | PHYS255 | Mathematical Physics | 3 | Concentration | | PHYS262 | Classical Mechanics | 3 | Major 1 |
| ě | (Fall) | MATH275 | Ordinary Differential Equations | 3 | Support course | (Spring) | | | | Support course |
| | (1 011) | CS8P224 | Introduction to Data Science | 3 | Support course | (Spring) | GEIE222 | | | Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship) |
| | | | | 15 | | | | | ü | |
| | | PHYS210 | Intermediate Physics Lab II | 1 | Concentration | | Elective | Student choice | 3 | Major Elective |
| 3 | 5 | PHYS335 | Electromagnetic Theory | 3 | Major 1 | | PHYS355 | Quantum Mechanics | 3 | Concentration |
| Ξ. | , | PHYS312 | Statistical Physics | | Concentration | U | Elective | | | Major Elective |
| ä | /= 113 | Elective | Student choice | | Free Elective | /a | Elective | Student choice | 3 | Free Elective |
| ٨ | (Fall) | P5Y313 | Educational Psychology | 3 | Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences) | (Spring) | GESU121 | Sustainability | 3 | Gen Ed Course (Cluster 3: Area 2: Sustainability) |
| | , | Elective | Student choice | 3 | Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts) | (-1- 0) | Elective | Student choice | 3 | Support course |
| | | | | 15 | | | | | ä | |
| | 7 | PHYS470 | Solid State Physics | 3 | Concentration | 0 | PHY\$494 | Research Project | 3 | Major 1 |
| 4 | / | PHYS483 | Introductory Nuclear Physics | 3 | Concentration | 8 | PHYSS00 | Internship | 6 | Internship |
| ē | | Elective | Student choice | | Major Elective | | | | | |
| ž | (Fall) | GEEM105 | Emirates Studies | | Gen Ed Course (Cluster 2: Area 3: Emirates Society) | (Spring) | | | | |
| | (1 011) | GEIS100/GEIS101 | Islamic Culture/Biography of the Prophet "Sira" | 3 | Gen Ed Course (Cluster 2: Area 4: Islamic Culture) | (Shiiig) | | | | |
| | | | | 15 | | | | | | |

Bachelor of Sicience 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

| | Semest | er | Course Code | Course Title | 2 | | Semester | Course Code | Course Title | СН | Course type |
|------|---------|-------|-----------------|---|----|---|----------|-------------|------------------------------|----|--|
| ٠. | | | PHYS105 | General Physics I | | Gen Ed Course (Cluster 3: Area 1: Natural Sciences) | | PHYS110 | | | Major 1 |
| 7 | 1 | | | General Physics Lab I | | Major 1 | 2 | | | 1 | Major 1 |
| Year | _ | | | Calculus I | | Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning) | _ | MATH110 | | | Support course |
| × | 10 | | | General Chemistry I | | Support course | /E - III | | | | Major 1 |
| | (Sprir | ng) L | | Algorithms and Problem Solving | | Gen Ed Course (Cluster 1: Area 4: Critical Thinking) | (Fall) | | | | Support course |
| | (- I- | ٥, | ESPU102 | Introduction to Academic English For Science | 3 | Gen Ed Course (Cluster 1: Area 2: English Communication) | , | GEIT112 | Fourth Industrial Revolution | | Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution) |
| | | | | | 16 | | | | | 5 | |
| 2 | 1 | | | | | Major 1 | 4 | PHYS210 | | | Major 1 |
| Year | 3 | | | Electronics Fundamentals | | Major 1 | 4 | | | | Major 1 |
| × | | | | Modern Physics | | Major 1 | | | | | Major Elective |
| | (Sprin | | | Ordinary Differential Equations | | Support course | (Fall) | | | | Major 1 |
| | (Spi ii | 1167 | CS8P224 | Introduction to Data Science | 3 | Support course | (i aii) | GEIE222 | | | Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship) |
| | | | | | 15 | | | | | 22 | |
| | | | | Intermediate Physics Lab I | | Major 1 | | | | | Major 1 |
| | 5 | | | Quantum Mechanics | | Major 1 | 6 | | | | Major 1 |
| | | | | Classical Mechanics | | Major 1 | U | | | | Major Elective |
| | /C:- | | | Student choice | | Free Elective | /E=II\ | | | | Free Elective |
| × | (2bt ii | | | Educational Psychology | | Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences) | (Fall) | | Sustainability | | Gen Ed Course (Cluster 3: Area 2: Sustainability) |
| ã | | | Elective | Student choice | 3 | Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts) | | Elective | | | Support course |
| > | | | | | 16 | | | | | 17 | |
| | 7 | | | Solid State Physics | | Major 1 | Ö | | | | Major 1 |
| 2 | / | | | Introductory Nuclear Physics | | Major 1 | ŏ | PHYSS00 | Internship | 6 | Internship |
| S. | | | | Student choice | | Major Elective | | | | | |
| Ye | (Sprin | | | Emirates Studies | | Gen Ed Course (Cluster 2: Area 3: Emirates Society) | (Fall) | | | _ | |
| | ווקט | 6/ | GEIS100/GEIS101 | Islamic Culture/Biography of the Prophet "Sira" | 3 | Gen Ed Course (Cluster 2: Area 4: Islamic Culture) | (1 411) | | | | |
| | | | | | | | | | | 9 | |





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 | СН | | Semester | Course Code | Course Title | CH | |
|----------|-------------------------------------|--|----|---|---|-------------|-------------------------------|---|--|
| | | | | | | | | | Major 1 |
| 1 | | | | | 2 | | | | Major 1 |
| - | | | 3 | Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning) | _ | MATH110 | | | Support course |
| /E - III | | | | | 10 | PHYS220 | | | Major 1 |
| (Fall) | | | | | (Spring) | | | | Support course |
| , | ESPU102 | Introduction to Academic English For Science | 3 | Gen Ed Course (Cluster 1: Area 2: English Communication) | (-1- 0) | GEIT112 | Fourth Industrial Revolution | 3 | Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution) |
| | | | 16 | | | | | 16 | |
| | | | 1 | Major 1 | | | | | Concentration |
| 2 | PHYS235 | Waves and Optics | 3 | Major 1 | 1 | STAT210 | Probability and Statistics | 3 | Support course |
| | | | | | - | PHYS250 | | | Major 1 |
| /E - III | | | | | 10 | PHYS262 | | | Major 1 |
| (Fall) | | | 3 | Support course | (Spring) | GEIE222 | | | Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship) |
| , | CSBP224 | Introduction to Data Science | 3 | Support course | (-1- 0) | Elective | Student choice | 33 | Free Elective |
| | | | 16 | | | | | 18 | |
| _ | | Celestial Mechanics | | | - | | | | Concentration |
| 5 | PHYS335 | Electromagnetic Theory | | | 6 | PHYS320 | Spacecraft Instrument Science | | Concentration |
| | Elective | Student choice | 3 | Major Elective | | GESU121 | Sustainability | 3 | Gen Ed Course (Cluster 3: Area 2: Sustainability) |
| (Fall) | Elective | Student choice | | | (Spring) | Elective | Student choice | | Major Elective |
| (i aii) | Elective | Student choice | 3 | Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts) | (Spring) | Elective | Student choice | 33 | Major Elective |
| | | | 15 | | | | | 15 | |
| | PHYS410 | Space Applications I | 3 | Concentration | 0 | PHY5494 | | | Major 1 |
| / | PHYS420 | Space Applications II | | | 8 | PHYSS00 | Internship | 6 | Internship |
| | | | | | | | | | |
| (Fall) | GEIS100/GEIS101 | Islamic Culture/Biography of the Prophet "Sira" | 3 | Gen Ed Course (Cluster 2: Area 4: Islamic Culture) | (Spring) | | | | |
| (1 411) | GEEM105 | Emirates Studies | 3 | Gen Ed Course (Cluster 2: Area 3: Emirates Society) | (Shiiig) | | | | |
| | 1 (Fall) 3 (Fall) 5 (Fall) 7 (Fall) | 1 PROSESS PR | 1 | Prof. | Description Description | 1 | PRINCESS | Proceedings Proceedings Proceedings Procedings Proceedings Procedings Procedings Procedings Procedings Proceedings Procedings Procedings | 1 |

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 | СН | | Semester | Course Code | Course Title | CH | |
|----------|----------|-------------|--|----|---|----------|-------------|---|----|---|
| | | | General Physics I | | Specialization | | PHYS110 | General Physics II | | Specialization |
| | | PHYS135 | General Physics Lab I | | Specialization | _ | | General Physics Lab II | | Specialization |
| ≒ | 1 | MATH105 | Calculus1 | | Support course | | MATH110 | Calculus II | | Support course |
| /ear | | | General Chemistry I | | Support course | | PHYS220 | Thermal Physics | | Specialization |
| > | (Fall) | | Academic English for Humanities and STEM | | Gen. Ed. Theme 2: Academic Language Proficiency | (Spring) | GEEM110 | Contemporary Emirati Studies | | Gen. Ed. Theme 1: UAE National Identity |
| | (i aii) | GEIT113 | Introduction to Artificial Intelligence | 3 | Gen. Ed. Theme 3: Innovation | (Spring) | | | | Support course |
| | | | | | | | C58P121 | Programming Lab I | 1 | Support course |
| | | | | 16 | | | | | 17 | |
| | | | Fundamentals of Electronics | | Specialization | | PHYS205 | Intermediate Physics Lab I | | Specialization |
| ~ | 2 | PHYS234 | Electronics Lab | 1 | Specialization | 4 | PHYS250 | Modern Physics | 3 | Specialization |
| /eai | J | PHYS235 | Waves and Optics | | Specialization | - | PHYS262 | Classical Mechanics | | Concentration |
| €. | /E - III | | Mathematical Physics | 3 | Specialization | 10 | STAT210 | | 3 | Support course |
| | (Fall) | MATH140 | Linear Algebra I | 33 | Support course | (Spring) | GEIE222 | fundamentals of Innovation and Entrepreneurship | | Gen. Ed. Theme 4: Entrepreneurship |
| | , | | | | | | Elective | Student choice | 3 | Free Elective |
| | | | | 13 | | | | | 16 | |
| | | GESU121 | Sustainability | 3 | Gen. Ed. Theme 5: Sustainability | | Elective | Student choice | 3 | Major Elective |
| m | 5 | Elective | Student choice | | Elective Support | 6 | Elective | Student choice | | Elective Support |
| 9 | , | Elective | Student choice | 3 | Major Elective | U | Elective | Student choice | | Free Elective |
| /ear | /= III | CSBP224 | Introduction to Data Science | 3 | Support course | /a | Elective | Student choice | 3 | Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11 |
| > | (Fall) | PHYS313 | Statistical Physics | 3 | Concentration | (Spring) | PHYS355 | Quantum Mechanics | 3 | Concentration |
| | , | PHYS335 | Electromagnetic Theory | 3 | Specialization | (-1- 0) | PHYS210 | Intermediate Physics Lab II | * | Specialization |
| | | | | 18 | | | | | 16 | |
| | _ | PHYS470 | Solid State Physics | 3 | Concentration | • | PHYS494 | Research Project | | Specialization |
| 4 | / | PHYS483 | Introductory Nuclear Physics | 3 | Concentration | 8 | PHYSS00 | Internship | 6 | Internship |
| <u>~</u> | | Elective | Student choice | | Major Elective | _ | | | | |
| ž | (Fall) | Elective | Student choice | 3 | Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11 | (Spring) | | | | |
| 1 | (Fall) | | | П | | (Shiiig) | | | | |

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 | | Semester | Course Code | Course Title | 2 | |
| | | | General Physics I | | Specialization | | | General Physics II | | Specialization |
| 7 | 4 | PHYS135 | General Physics Lab I | | Specialization | 2 | PHYS140 | General Physics Lab II | | Specialization |
| ≒ | 1 | MATH105 | Calculus1 | 3 | Support course | | PHYS220 | Thermal Physics | | Support course |
| /ear | | CHEM111 | General Chemistry I | 3 | Support course | | | Algorithms and Problem Solving | | Specialization |
| > | (Fall) | | Introduction to Artificial Intelligence | | Gen. Ed. Theme 3: Innovation | (Spring) | | Programming Lab I | | Support course |
| | (i aii) | GEAE101 | Academic English for Humanities and STEM | 3 | Gen. Ed. Theme 2: Academic Language Proficiency | (Spring) | GEEM110 | Contemporary Emirati Studies | | Gen. Ed. Theme 1: UAE National Identity |
| | | | | ш | | | MATH110 | Calculus II | 3 | Specialization |
| | | | | 16 | | | | | 17 | |
| | | PHYS233 | Fundamentals of Electronics | 3 | Specialization | | PHYS205 | Intermediate Physics Lab I | 1 | Specialization |
| ~ | 2 | PHYS234 | Electronics Lab | 1 | Specialization | 1 | PHYS200 | Introduction to Space Sciences | 3 | Concentration |
| /ea | | | Waves and Optics | 3 | Specialization | - | | Modern Physics | | Specialization |
| 2 | /= III | | Mathematical Physics | 3 | Specialization | /a | GEIE222 | fundamentals of Innovation and Entrepreneurship | | Gen. Ed. Theme 4: Entrepreneurship |
| | (Fall) | MATH140 | Linear Algebra I | 3 | \$ | (Spring) | | Student choice | | Free Elective |
| | (/ | MATH275 | Ordinary Differential Equations | 3 | Support course | (-1- 0) | STAT210 | Probability and Statistics | | Support course |
| | | | | 16 | | | | | 16 | |
| 3 | | | Celestial Mechanics | 3 | Concentration | | PHYS410 | Space Applications I | | Concentration |
| ≒ | 5 | | Space Missions | | Concentration | 6 | PHY5210 | Intermediate Physics Lab II | | Free Elective |
| /ea | | | Electromagnetic Theory | 3 | Specialization | • | | Student choice | | Free Elective |
| > | /E - III | | Introduction to Data Science | | Support course | 10 | | Student choice | | Major Elective |
| | (Fall) | GESU121 | Sustainability | 3 | Gen. Ed. Theme 5: Sustainability | (Spring) | Elective | Student choice | 3 | Support Elective |
| | , | Elective | Student choice | 3 | Support Elective | (-1- 0) | Elective | Student choice | ŝ | Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11 |
| | | | | 18 | | | | | 16 | |
| | | | Spacecraft Instrument Science | | Concentration | 0 | | Research Project | | Specialization |
| 4 | / | PHYS420 | Space Applications II | 3 | Concentration | 8 | PHYSS00 | Internship | 6 | Internship |
| /ear | | | Student choice | | Major Elective | | | | | |
| × | (Fall) | Elective | Student choice | 93 | Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11 | (Spring) | | | | |
| | (i all) | | | | | (Shiiig) | | | | |