

# SCIENCE (SCIEN-UH)

## SCIEN-UH 1101:1104 Foundations of Science 1: Energy & Matter (4 Credits)

*Typically offered Fall and Spring*

Foundations of Science 1: Energy and Matter provides a comprehensive introduction to these two fundamental concepts that are so famously unified in the equality  $E=mc^2$ . Following an introduction to the physical sciences, the course focuses on velocity, acceleration, forces, and energy, while simultaneously introducing students to atoms and molecules. Chemical reactions are examined, and the energy changes associated with them are investigated via a thorough analysis of the three laws of thermodynamics. Laboratory exercises focus on the guiding principles of the scientific method and an introduction to experimental design, and scientific presentation, including technical writing. Weekly discussion sections are designed to hone proficiency at solving problems in a collaborative, team environment. From Fall 2023 this course will now be known as: SCIEN-UH 1121EQ, SCIEN-UH 1122EQ, SCIEN-UH 1123EQ

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1012 or MATH-UH 1013.

- Bulletin Categories: Foundations of Science Courses
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering
- Crosslisted with: Science

## SCIEN-UH 1121EQ Foundations of Science 1-2: Physics (1.5 Credits)

*Typically offered Fall and Spring*

This is the Physics component for Foundations of Science 1-2.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

## SCIEN-UH 1122EQ Foundations of Science 1-2: Chemistry (3 Credits)

*Typically offered Fall and Spring*

This is the Chemistry component for Foundations of Science 1-2.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1012 or MATH-UH 1013 or Math Placement Assessment of 5.

## SCIEN-UH 1123EQ Foundations of Science 1-2: Biology (1.5 Credits)

*Typically offered Fall and Spring*

This is the Biology component for Foundations of Science 1-2.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1012 or MATH-UH 1013 or Math Placement Assessment of 5.

## SCIEN-UH 1124C Foundations of Science 2 Lab: Chemistry (1 Credit)

*Typically offered Fall and Spring*

This is the Lab component for Foundations of Science 2 (Chemistry).

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1012 or MATH-UH 1013 or Math Placement Assessment of 5.

## SCIEN-UH 1124P Foundations of Science 1 Lab: Physics (1 Credit)

*Typically offered Fall and Spring*

This is the Lab component for Foundations of Science 1 (Physics).

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1012 or MATH-UH 1013 or Math Placement Assessment of 5.

## SCIEN-UH 1341 Foundations of Science 3-4: Physics (3 Credits)

*Typically offered Fall and Spring*

This is the Physics component for Foundations of Science 3-4.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Prerequisites:** Foundations of Science 1-2 Pre- or Corequisite: MATH-UH 1020 or MATH-UH 1021 or Math Placement Assessment of 5.

## SCIEN-UH 1342 Foundations of Science 3-4: Chemistry (3 Credits)

*Typically offered Fall and Spring*

This is the Chemistry component for Foundations of Science 3-4.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1020 or MATH-UH 1021 or Math Placement Assessment of 5.

## SCIEN-UH 1343 Foundations of Science 3-4: Biology (2 Credits)

*Typically offered Fall and Spring*

This is the Biology component for Foundations of Science 3-4.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1020 or MATH-UH 1021 or Math Placement Assessment of 5.

## SCIEN-UH 1344B Foundations of Science 4 Lab: Biology (1 Credit)

*Typically offered Fall and Spring*

This is the Lab component for Foundations of Science 4.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1020 or MATH-UH 1021 or Math Placement Assessment of 5.

## SCIEN-UH 1344C Foundations of Science 3 Lab: Chemistry (1 Credit)

*Typically offered Fall and Spring*

This is the Lab component for Foundations of Science 3.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Corequisites:** MATH-UH 1020 or MATH-UH 1021 or Math Placement Assessment of 5.

## SCIEN-UH 1561 Foundations of Science 5-6: Physics (3 Credits)

*Typically offered Fall and Spring*

This is the Physics component for Foundations of Science 5-6.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Prerequisites:** Foundations of Science 3-4 Corequisites: SCIEN-UH 1563, SCIEN-UH 1564B and SCIEN-UH 11564P.

## SCIEN-UH 1563 Foundations of Science 5-6: Biology (3 Credits)

*Typically offered Fall and Spring*

This is the Biology component for Foundations of Science 5-6.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Prerequisites:** Foundations of Science 3-4 Corequisites: SCIEN-UH 1561, SCIEN-UH 1564B and SCIEN-UH 1564P.

**SCIEN-UH 1564B Foundations of Science 5 Lab: Biology (1 Credit)**

*Typically offered Fall and Spring*

This is the Lab component for Foundations of Science 5.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Prerequisites:** Foundations of Science 4 and (MATH-UH 1020 or MATH-UH 1021) **Corequisites:** SCIEN-UH 1561, SCIEN-UH 1563 and SCIEN-UH 1564P.

**SCIEN-UH 1564P Foundations of Science 6 Lab: Physics (1 Credit)**

*Typically offered Fall*

This is the Lab component for Foundations of Science 6.

**Grading:** Ugrd Abu Dhabi Graded

**Repeatable for additional credit:** No

**Prerequisites:** Foundations of Science 5 and (MATH-UH 1020 or MATH-UH 1021) **Corequisites:** SCIEN-UH 1561, SCIEN-UH 1563 and SCIEN-UH 1564B.