**SE 1700 - Engineering Fundamentals**
2 Credits
The course introduces engineering problem solving process. Algorithmic and visual skills and computer tools are introduced. It also exposes students to the engineering career paths.
Attributes: UUC:Ignite Seminar

**SE 1701 - Engineering Fundamentals Studio**
1 Credit
Companion course to Engineering Fundamentals.

**SE 1702 - Engineering Studio: Self and Community**
1 Credit
The course combines the key elements of ESCI 1701 (Engineering Fundamentals Studio) with the requirements of Cura Personalis 1. Students will learn the concepts and tools used for computer modeling of mechanical systems. They will apply those concepts to the exploration of self and the SLU community. This course complements the content of ESCI 1700 but can be taken independently.

**SE 1709 - Introduction to Engineering**
2 Credits
The course introduces the engineering profession and problem solving process. Algorithmic and visual skills and computer tools are introduced.

**SE 1930 - Special Topics**
1-4 Credits (Repeatable for credit)
Special Topics in Science and Engineering.

**SE 2930 - Special Topics**
1-4 Credits (Repeatable for credit)
Special Topics in Science and Engineering.

**SE 3870 - Foundational Interdisciplinary Research Experience (FIRE)**
1 Credit (Repeatable up to 6 credits)
The Foundational Interdisciplinary Research Experience (FIRE) is designed to introduce students to research within an interdisciplinary project. Students are assigned to a project run by a team of at least two faculty mentors from the School of Science and Engineering. Specific roles and expectations will be arranged between the faculty advisors. A goal of this experience is for students to be active participants in their learning and to become independent researchers within an interdisciplinary team environment.
Attributes: Special Approval Required

**SE 3930 - Special Topics**
1-4 Credits (Repeatable for credit)
Special Topics in Science and Engineering.

**SE 4870 - Foundational Interdisciplinary Research Experience (FIRE)**
1 Credit (Repeatable up to 6 credits)
The Foundational Interdisciplinary Research Experience (FIRE) is designed to introduce students to research within an interdisciplinary project. Students are assigned to a project run by a team of at least two faculty mentors from the School of Science and Engineering. Specific roles and expectations will be arranged between the faculty advisors. A goal of this experience is for students to be active participants in their learning and to become independent researchers within an interdisciplinary team environment.
Attributes: Special Approval Required

**SE 4930 - Special Topics**
1-4 Credits (Repeatable for credit)
Special Topics in Science and Engineering.

**SE 4970 - Independent Research**
1-3 Credits (Repeatable for credit)
Individual or small group investigation of a topic.

**SE 5810 - Experiential Entrepreneurship Studio Research - I**
3 Credits
The experiential research coursework will be focused on innovation in STEM-focus areas, advancement of technology, and the development of products. In an effort to focus on advancing and developing technologies and taking them to market, this experience will join practicality and theory in the classroom with real life implications through experiential and hands-on learning. EESR will combine STEM technology developed on campus or through industry partners, experience of entrepreneurs and executives in residence, and the talent, curiosity and energy of students to create an experience that will lead to the launch of new ventures and the careers of our graduates. This course will cover topics such as ideation, team formation, sourcing technology, IP management, customer discovery, accounting fundamentals, and technology advancement / lab-work.
Attributes: Special Approval Required

**SE 5820 - Experiential Entrepreneurship Studio Research - II**
3 Credits
The experiential research coursework will be focused on innovation in STEM-focus areas, advancement of technology, and the development of products. In an effort to focus on advancing and developing technologies and taking them to market, this experience will join practicality and theory in the classroom with real life implications through experiential and hands-on learning. EESR will combine STEM technology developed on campus or through industry partners, experience of entrepreneurs and executives in residence, and the talent, curiosity and energy of students to create an experience that will lead to the launch of new ventures and the careers of our graduates. This course will cover topics such as business models, minimum viable products (MVPs), customer discovery, financial modeling, and technology advancement / lab-work.
Attributes: Special Approval Required

**SE 5830 - Experiential Entrepreneurship Studio Research - III**
3 Credits
The experiential research coursework will be focused on innovation in STEM-focus areas, advancement of technology, and the development of products. In an effort to focus on advancing and developing technologies and taking them to market, this experience will join practicality and theory in the classroom with real life implications through experiential and hands-on learning. EESR will combine STEM technology developed on campus or through industry partners, experience of entrepreneurs and executives in residence, and the talent, curiosity and energy of students to create an experience that will lead to the launch of new ventures and the careers of our graduates. This course will cover topics such as customer experiences, sales, fundable technology, raising capital, pitching, operations.
Attributes: Special Approval Required

**SE 5930 - Special Topics**
1-4 Credits (Repeatable for credit)
Special Topics in Science and Engineering.