ENGR 105 Engineering Graphics (2 credits)
Freehand and computer aided drawing in pictorial and orthographic projection; section and auxiliary views; descriptive geometry; graphical presentation of data; scales, dimensioning, and measurements. Two lectures and one 2-hour lab per week.

ENGR 123 First Year Engineering (2 credits)
Introduction to critical thinking and engineering problem solving, writing in the professional context, oral communication skills, teamwork and leadership, professionalism and work ethic. Focuses on career exploration, best practices in completing STEM homework assignments, development of a professional identity, immersion in a team-based design project with a campus client, and cultivation of life-long learning to ensure workforce success. Typically Offered: Fall.
Prereqs: None
Coreqs: MATH 108 (or higher)

ENGR 204 (s) Special Topics (1-16 credits)
Credit arranged

ENGR 205 Near Space Engineering (1 credit, max 6)
Idaho RISE (Research Involving Student Engineers and Educators) is the NASA Idaho Space Grant Consortium student high-altitude scientific balloon program at the University of Idaho. RISE is a multidisciplinary program involving students from all departments in the College of Engineering, as well as Physics, Chemistry, Life Sciences, Education, and many other departments. Students in ENGR 205 will participate in the design, development, testing, flight and flight operations, recovery, and data analysis of balloon-borne science and engineering instrumentation flown to altitudes of 100,000 feet and higher. Recommended Preparation: Interest in space, aerospace science and engineering.

ENGR 206 Near Space Engineering II (1 credit, max 6)
Idaho RISE (Research Involving Student Engineers and Educators) is the NASA Idaho Space Grant Consortium student high-altitude scientific balloon program at the University of Idaho. RISE is a multidisciplinary program involving students from all departments in the College of Engineering, as well as Physics, Chemistry, Life Sciences, Education, and many other departments. Students in ENGR 206 will participate in the design, development, testing, flight and flight operations, recovery, and data analysis of balloon-borne science and engineering instrumentation flown to altitudes of 100,000 feet and higher. Recommended Preparation: Interest in engineering, space, and aerospace sciences. (Spring only)

ENGR 210 Engineering Statics (3 credits)
Principles of statics with engineering applications; addition and resolution of forces, vector algebra, moments and couples, resultants and static equilibrium, equivalent force systems, centroids, center of gravity, free body method of analysis, two and three dimensional equilibrium, trusses, frames, and friction. Cooperative: open to WSU degree-seeking students.
Prereqs: MATH 170.

ENGR 220 Engineering Dynamics (3 credits)
Particle and rigid body kinematics and kinetics; rectilinear, curvilinear, and relative motion, equations of motion, work and energy, impulse and momentum, systems of particles, rotation, rotating axes, rigid body analysis, angular momentum, vibration, and time response. Cooperative: open to WSU degree-seeking students.
Prereqs: ENGR 210 and MATH 175