Engineering and Physics Assessment Plan

| Courses | | | | Learning Outcomes | | | | When Assessed |
|---|--|--|---|---|--|---|--|----------------|
| EGR 1023 - Introduction to Engineering II EGR 1023L - Introduction to Engineering II Lab | | 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental, and economic factors | , | 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts | 5. an ability to function effectively or a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives | | | Every Spring |
| EGR 2014 - Engineering Mechanics: Statics EGR 2014L - Engineering Mechanics: Statics Lab | an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT) | | 3. an ability to communicate effectively with a range of audiences (CC: OC, WC, IL) | 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts | | | | Every Spring |
| EGR 2024L - Circuit Analysis EGR 2024 - Circuit Analysis Lab | an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT) | | | | 5. an ability to function effectively or a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives | n 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (CC: QR) | | Every Fall |
| EGR 3034 - Mechanics of Materials EGR 3034L - Mechanics of Materials Lab | an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT) | 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental, and economic factors | 3. an ability to communicate effectively with a range of audiences (CC: OC, WC, IL) | | | 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (CC: QR) | | Even Fall |
| EGR 3093 - Digital Electronics EGR 3093L - Digital Electronics Lab | | | 3. an ability to communicate effectively with a range of audiences (CC: OC, WC, IL) | | | 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (CC: QR) | | Even Spring |
| EGR 4042 - Embedded Systems and Robotics EGR 4042L - Embedded Systems and Robotics Lab | | 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental, and economic factors | , | | | | | Odd Spring |
| EGR 4072 / PHY 4072 - Senior Project I | an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT) | 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental, and economic factors | | 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts | 5. an ability to function effectively or a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives | n 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (CC: QR) | 7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies. | Every Fall |
| EGR 4082 / PHY 4082- Senior Project II | an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT) | 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental, and economic factors | (CC: OC, WC, IL) | 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts | 5. an ability to function effectively or a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives | n 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (CC: QR) | 7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies. | Every Spring |
| EGR 4103 - Electrical Signals and Systems | an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT) | | | | | | | Even Fall |
| PHY 3004 - Modern Physics PHY 3004L - Modern Physics Lab | | | 3. an ability to communicate effectively with a range of audiences (CC: OC, WC, IL) | | 5. an ability to function effectively or a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives | 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions (CC: QR) | | Every Spring |
| General Education Courses: PHY 1034 - The Physics of Sound and Music (FE) PHY 1044 - General Physics I (FE) PHY 2044 - University Physics I (FE) PSC 1004 - The Cosmos (FE) PSC 1014 - Physical Science for Teachers (FE) | | | | | | | | Every Semester |