**ENGR & MATH SCIENCES (CEMS)**

**Courses**

**CEMS 033. QR:SU: Sustainable Energy Srs. 3 Credits.**
Qualitative and quantitative study of renewable energy sources in comparison to fossil fuels: methods of harvesting, applications, environmental and financial sustainability. Assessment of current national and international energy mixes, considering challenges and opportunities in the energy transition. Prerequisites: MATH 009 or any higher level MATH class or Instructor permission.

**CEMS 050. CEMS First Year Seminar. 0 or 1 Credits.**
First-year experience for College of Engineering and Mathematical Sciences majors that introduces the design process and strategies for building equitable and effective teams. These skills will be developed in the context of a semester-long project. Students interact with faculty, professionals and peers in their fields. Prerequisite: College of Engineering and Mathematical Sciences major.

**CEMS 090. Internship. 1-3 Credits.**
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

**CEMS 092. Independent Study. 1-18 Credits.**
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

**CEMS 095. Introductory Special Topics. 1-18 Credits.**
See Schedule of Courses for specific titles.

**CEMS 101. HCOL Research Experience. 1 Credit.**
Required Junior year course that prepares HCOL students for conducting their research and development of their thesis. Also initiates discussion with potential advisors and has students define a research topic for their HCOL 193/ HCOL 194 experience. Prerequisite: Junior standing.

**CEMS 190. Internship. 1-18 Credits.**
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

**CEMS 192. Independent Study. 1-18 Credits.**
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

**CEMS 195. Intermediate Special Topics. 1-18 Credits.**
See Schedule of Courses for specific titles.

**CEMS 197. Teaching Assistantship. 1-3 Credits.**
Undergraduate student service as a teaching assistant, usually in an introductory-level course in the discipline, for which credit is awarded. Offered at department discretion.

**CEMS 198. Undergraduate Research. 1-18 Credits.**
Undergraduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

**CEMS 290. Internship. 1-18 Credits.**
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

**CEMS 292. Independent Study. 1-18 Credits.**
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

**CEMS 295. Advanced Special Topics. 1-18 Credits.**
See Schedule of Courses for specific titles.

**CEMS 297. Teaching Assistantship. 1-3 Credits.**
Undergraduate student service as a teaching assistant, usually in an introductory-level course in the discipline, for which credit is awarded. Offered at department discretion.

**CEMS 298. Undergraduate Research. 1-18 Credits.**
Undergraduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

**CEMS 299. Cooperative Education. 12 Credits.**
Supports students as they engage in experiential learning and reflect about their work experiences. Helps students maximize their cooperative education (co-op) position to ensure they are gaining industry relevant skills that will allow them to excel in their remaining academic coursework and throughout their careers. Prerequisites: College of Engineering and Mathematical Sciences undergraduate student, sophomore or junior standing only, GPA requirement.