Academic Year 2017-18 Interdisciplinary Minor in Alternative Engery Technology (IMAE) Department of Chemical Engineering Credits Required: 18

Student Name and ID Number

| Required Fluid and Heat Transfer Courses (Select one set of courses, 4 - 8 credits) | Credits |
|--|---------|
| CM 3110 Transport/Unit Operations I (3) Preregs: CM2120 and (MA3520 or MA3521 or MA3530 or MA3560) and MA3160 and PH2100 | |
| and CM 3120 Transport/Unit Operations II (3) Prereq: CM3110 and CM2120 and (MA3520 or MA3521 or MA3530 or MA3560) | |
| MEEM 3201 Intro Fluid Mech & Heat Trans (4) Preregs: MEEM2201 and MEEM2911(C) and MA3520 or MA3521 or MA3530 or MA3560 | |
| MET 3400 Applied Fluid Mechanics (3) Prereqs: MET2130 | |
| and MET 4300 Applied Heat Transfer (3) Prereqs: MET3600 or (MET3700 and MET4360(C)) | |
| MY 3100 Materials Processing I (4) Prereqs: MY2100 and MA2160 | |
| and MY 3110 Material Processing II (4) Prereqs: MY2110 and MY3100 and (MA3520 or MA3521 or MA3530 or MA3560) | |

| Required Circuits Course (Select one course, 3 credits) | Credits |
|--|---------|
| EE 2111 Electric Circuits I (3) Preregs: EE1110 and MA2160 | |
| EE 3010 Circuits and Instrumentation (3) Preregs: none | |
| EET 3131 Instrumentation (3) Prereqs: EET1411 or EET2220 or PH2230 or EE2110 or EE3010 | |

| Required Energy Technology Courses (Select 6 or more credits) | Credits |
|---|---------|
| CM/ENT 3979 Alternative Engery Tech and Processes (1) Preregs: (CH1112 or (CH1150 and CH1151)) and (MA1160 or MA1161) | |
| EC 4620 Energy Economics (3) Prereqs: EC2001 and UN1015 and (UN1025 or Modern Language, 3000-level or higher) | |
| EE 3120 Electric Energy Systems (3) Prereqs: EE2110 or EE3010 or (EE2111 and EE2112(C)) | |
| EET/MET 4380 Alternative Energy Applications (3) Prereqs: EET2233 | |
| ENG 4510 Sustainable Futures I (3) Prereqs: none | |
| ENG 5520 Sustainable Futures II (3) Prereqs: none | |
| MEEM 4200 Principles of Energy Conversion (3) Prereqs: MEEM 4201(C) or MEEM3230(C) or CM3230 or ENG3200 or MY3100 | |
| MEEM 4260 Fuel Cell Technology (3) Prereqs: MEEM3230 or CM3110 or MEEM 3201 | |
| or CM/ENT 3974 Fuel Cell Fundamentals (1) Prereqs: CH1112 or (CH1150 and CH1151) | |
| SS 3800 Energy Technology & Policy (3) Preregs: UN1015 and (UN1025 or Modern Language, 3000-level or higher) | |

| Elective Courses (Select Remaining credits, 0 - 5) | Credits |
|--|---------|
| CM 4080 Undergrad Research in Biofuels Engineering (1-6) Prereqs: none | |
| EE 4219 Intro to Electric Machinery and Drives (3) Preregs: EE2110 or EE2112 or EE3010 | |
| EE 4227 Power Electronics (3) Preregs: EE3120 and (EE3130(C) or EE3131) | |
| EE 4295 Introduction to Propulsion Systems for Hybrid Electric Vehicles (3) Preregs: MEEM2200 or ENG3200 | |
| EE 4296 Experimental Studies in Hybrid Electric Vehicles (3) Prereqs: none | |
| EET 3390 Power Systems (3) Preregs: EET2233 | |
| ENT 29xx Enterprise Project Work* (up to 2 credits) Preregs: none | |
| ENT 39xx Enterprise Project Work* (up to 4 credits) Preregs: none | |
| ENT 49xx Enterprise Projecxt Work* (up to 4 credits) Preregs: variable | |
| MEEM 4220 Internal Combustion Engines I (3) Prereqs: MEEM 3210 or MEEM4201(C) | |
| MEEM 4240 Combustion & Air Pollution (3) Prereqs: MEEM2200 or MEEM2201 | |
| MET 4390 Internal Combustion Engines (3) Prereqs: MET3600 or MET4300 or (MET3700 and MET4360(C)) | |
| MY 4140 Science of Ceramic Materials (3) Prereqs: MY2100 | |
| XX xxxx Undergraduate Research* (1-6) Preregs: none | |
| Total Credits Required = 18 | |

Student Signature Date Academic Advisor Signature Date

^{*}Topic must be approved by academic advisor