

Mechanical Engineering

FIRST TERM

| Credit | Class |
|-----------|--|
| 4 | MATH 0221 Calculus I |
| 3 | CHEM 0150 (previously Chem 0111) General Chem Eng 1 |
| 4 | PHYS 0150 Phys for Eng 1 |
| 3 | ENGR 0017 Intro to Eng Analysis |
| 3 | ENGCMP 0005 Composition 1 (<i>or a 650 or better on reading writing portion of SAT</i>) |
| 0 | ENGR 0081 Freshman Seminar 1 |
| 17 | TOTAL |

THIRD TERM

| Credit | Class | Pre/Co Req |
|-----------|-----------------------------|--------------------------------|
| 4 | MATH 241 Calculus III | Calc II (C- or better) |
| 3 | MATH 1181 Linear Algebra | Calc II |
| 3 | ENGR 0022 Materials | Calc II, Phys for Eng 1 |
| 3 | ENGR 0132 Statics | Phys for Eng 1, <i>Calc II</i> |
| 3 | ME 0024 Intro ME Design | Intro Eng Analysis |
| 0 | ME 1085 Dept Seminar | |
| 16 | TOTAL | |

FIFTH TERM

| Credit | Class | Pre/Co Req |
|-----------|----------------------------------|-----------------------------------|
| 3 | ME 0071 Fluids | Calc II, <i>Diff Eq</i> |
| 3 | ENGR 0152 Rigid Body Dynamics | Calc II, Statics |
| 3 | ME 1026 Mechanical Design I | Statics, Mech of Matls, Materials |
| 3 | Engineering Elective | |
| 3 | WOK (S&C, GH&C, A&CE) | |
| 0 | ME 1085 Dept Seminar | |
| 15 | TOTAL | |

SEVENTH TERM

| Credit | Class | Pre/Co Req |
|-----------|-----------------------------------|-----------------------------|
| 3 | ME 1046 Measurements 2 | Meas 1 |
| 3 | ME 1054 Heat & Mass Transf | Intro Thermo, <i>Fluids</i> |
| 3 | ME 1095 Professional Practices | Mechanical Design 2 |
| 3 | Dyn System Elective | |
| 3 | WOK (S&C, GH&C, A&CE) | |
| 0 | ME 1085 Dept Seminar | |
| 15 | TOTAL | |

SECOND TERM

| Credit | Class | Pre/Co Req |
|-----------|--|-----------------------------------|
| 4 | MATH 0231 Calculus II | Calc I (C- or better) |
| 3 | CHEM 0151 with Lab (previously Chem 0115) General Chem Eng 2 | Chem Eng 1 |
| 4 | PHYS 0152 Phys for Eng 2 | Phys for Eng 1, <i>Calc II</i> |
| 3 | ENGR 0018 Intro Eng Computing | Intro to Eng Analy, <i>Calc I</i> |
| 3 | WOK (S&C, GH&C, A&CE) | |
| 0 | ENGR 0082 Fresh. Seminar 2 | |
| 17 | TOTAL | |

FOURTH TERM

| Credit | Class | Pre/Co Req |
|-----------|----------------------------------|---|
| 3 | MATH 1271 Differential Eq's | Calc III |
| 3 | ENGR 0142 Mechanics of Mat'ls | Statics, Calc II |
| 3 | EE 0031 Linear Circuits | Calc II, Phys for Eng 2 |
| 3 | ME 0040 Mat'l & Mfging | <i>Materials</i> |
| 3 | ME 0052 Intro Thermo | Phys for Eng 1, Chem I, <i>Calc III</i> |
| 3 | COMMRE 0052 Public Speaking | |
| 0 | ME 1085 Dept Seminar | |
| 18 | TOTAL | |

SIXTH TERM

| Credit | Class | Pre/Co Req |
|-----------|--------------------------------|--|
| 3 | ME 1013 Dynamic Systems | Linear Alg, Intro to Eng Computing, Circuits |
| 3 | ME 1027 Mechanical Design 2 | Intro ME Design, Mechanical Design 1 |
| 3 | ME 1044 Measurements I | Circuits, Diff Eq, <i>Dynamic Systems</i> |
| 3 | ME 1053 Applied Thermo | Intro Thermo |
| 3 | WOK (S&C, GH&C, A&CE) | |
| 0 | ME 1085 Dept Seminar | |
| 15 | TOTAL | |

EIGHTH TERM

| Credit | Class | Pre/Co Req |
|-----------|---------------------------|-----------------|
| 3 | ME 1099 Senior Project | Prof. Practices |
| 3 | ME 1071 Applied Fluids | Fluids |
| 3 | ME Tech Elective | |
| 3 | ME Tech Elective | |
| 3 | WOK (S&C, GH&C, A&CE) | |
| 0 | ME 1085 Dept. Seminar | |
| 15 | TOTAL | |

Notes: 1) *italic lettering means co-req*

2)* students have a minimum of 128 credits to graduate.

Students who do not need to take ENGCMP 0005 (SAT-V greater than 650) will need to take another 3 credits to meet this requirement.

ME Schedule_Rev_9_5_2019

Mechanical Engineering

ENGINEERING ELECTIVES

| Course | Pre/Co Req | Typical Term |
|--|---|----------------------|
| ENGR 1103 Engineering Economics | Sophomore or beyond | Fall, Spring, Summer |
| ENGR 1115 Engineering Leadership | TBD | Fall |
| CHE 0214 Intro to Chemical Process Design | Gen Chem Eng 2 Calc II, Phys for Eng 1 | Spring |
| CE 1105 Materials of Construction | <i>Mech of Matl's</i> | Spring |
| CE 1330 Intro to Structural Analysis | CE 0110 (or Engr 0018 and permission) | Fall |
| CE 1503 Intro to Environmental Engineering | Gen Chem Eng 2 | Fall |
| CE 1610 Engineering & Sustainable Development | | Spring |
| CE 1811 Principles of Soil Mechanics | Mech of Matl's | Fall |
| EE0445 Programming & Intro to Data Structures | Calc I, Intro to Eng Computing | Fall |
| EE 1552 Signals & Systems | Linear Circuits, Calc II | Fall |
| | | |
| EE 1673 Control Systems | Calc III, <i>Diff EQ</i> , JME-BSE | Fall |
| EE 1177 Measurement & Industrial Control | TBD Intro to Eng Comp, Linear Circuits | Spring |
| EE 1771** Electric Machines | Linear Circuits | Spring Sum |

DYNAMIC SYSTEMS ELECTIVES

| Course | Pre/Co Req | Typical Term |
|--|------------------------------------|--------------|
| ME 1061 Off Road Vehicle Dynamics | Intro to ME Design, Mech Design 2 | Fall |
| EE 1673 Control Systems | Calc III, <i>Diff EQ</i> , JME-BSE | Fall |
| EE 1177 Measurements and Industrial Controls | Intro to Eng Comp, Linear Circuits | Spring |
| EE 1771 Electric Machines | Linear Circuits | Spring Sum |

NOTE: Courses taken as a *Dynamic Systems Elective* cannot also be counted as an *Engineering Elective*

ME TECHNICAL ELECTIVES

| Course | Pre/Co Req | Typical Term |
|---|--|--------------|
| ME 1056 Energy | Applied Thermo | Fall |
| ME 1059 Heating, Ventilation, & Air Conditioning | Applied Thermo, <i>Heat & Mass Trans</i> | Fall |
| ME 1172 CADD/CAE | Intro ME Design | Spring |
| ME 1173 Finite Element Methods | Intro Eng Comp, Diff Eq, Mech Design I | Spring |
| CHE 0510 Intro to Computational Fluid Dynamics | ME 0071 Fluids | Spring |

Notes: 1) *italic lettering means co-req*

2)* students have a minimum of 128 credits to graduate.

Students who do not need to take ENGCOMP 0005 (SAT-V greater than 650) will need to take another 3 credits to meet this requirement.

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