

**MDS 010 BSCE Civil Engineering
4 Year 1 Co-op**

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|---------|---|---------|
| Yr 1 FL | C MTH U241 Calculus 1 for Sci/Engr | 4.0 SH |
| Yr 1 FL | C CHM U151 General Chem for Engineers | 4.0 SH |
| | Coreq(s): C CHM U152 C CHM U153 | |
| Yr 1 FL | C CHM U153 Recitation for CHM U151 | 0.0 SH |
| | Coreq(s): C CHM U151 C CHM U152 | |
| Yr 1 FL | A GE U110 Engineering Design | 4.0 SH |
| Yr 1 FL | A GE U100 Intro to the Study of Engr | 1.0 SH |
| Yr 1 FL | NU Core course or Elective | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 1 SP | C MTH U242 Calculus 2 for Sci/Engr | 4.0 SH |
| Yr 1 SP | C PHY U151 Physics for Engineering 1 | 4.0 SH |
| | Coreq(s): C PHY U152 C PHY U153 | |
| Yr 1 SP | C PHY U152 Lab for PHY U151 | 1.0 SH |
| | Coreq(s): C PHY U151 C PHY U153 | |
| Yr 1 SP | C PHY U153 Interact Learn for PHY U151 | 0.0 SH |
| | Coreq(s): C PHY U151 C PHY U152 | |
| Yr 1 SP | C ENG U111 College Writing | 4.0 SH |
| Yr 1 SP | A GE U111 Engr Prob Solv and Comp | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 1 S1 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 1 S2 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 2 FL | C MTH U341 Calculus 3 for Sci/Engr | 4.0 SH |
| | Coreq(s): C MTH U342 | |
| Yr 2 FL | A CIV U221 Statics & Strength of Material | 4.0 SH |
| | Coreq(s): A CIV U222 | |
| Yr 2 FL | A CIV U222 Recitation for CIV U221 | 0.0 SH |
| | Coreq(s): A CIV U221 | |
| Yr 2 FL | A CIV U260 Civil Engineering Materials | 3.0 SH |
| | Coreq(s): A CIV U261 A CIV U262 | |
| Yr 2 FL | A CIV U261 Materials & Measurements Lab | 2.0 SH |
| | Coreq(s): A CIV U260 A CIV U264 | |
| Yr 2 FL | A CIV U334 Environmental Engr 1 | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 2 SP | A CIV U320 Structural Analysis 1 | 4.0 SH |
| | Coreq(s): A CIV U321 | |
| Yr 2 SP | A CIV U321 Recitation for CIV U320 | 0.0 SH |
| | Coreq(s): A CIV U320 | |
| Yr 2 SP | A CIV U300 Intro to Engr Coop Education | 1.0 SH |
| Yr 2 SP | C MTH U343 Diff Eq and Lin Alg for Engr | 4.0 SH |
| | Coreq(s): C MTH U344 | |
| Yr 2 SP | C PHY U155 Physics for Engineering 2 | 4.0 SH |
| | Coreq(s): C PHY U156 C PHY U157 | |
| Yr 2 SP | C PHY U156 Lab for PHY U155 | 1.0 SH |
| | Coreq(s): C PHY U155 C PHY U157 | |
| Yr 2 SP | C PHY U157 Interact Learn for PHY U155 | 0.0 SH |
| | Coreq(s): C PHY U155 C PHY U156 | |
| Yr 2 SP | C ECN U115 Principles of Macroeconomics | 4.0 SH |
| | Semester Subtotal | 18.0 SH |
| Yr 2 S1 | A CIV U324 Reinforced Concrete Design 1 | 4.0 SH |
| Yr 2 S1 | NU Core Course or Elective | 4.0 SH |
| | Semester Subtotal | 8.0 SH |
| Yr 2 S2 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |

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|---------|--|---------|
| Yr 3 FL | A CIV U464 Prob & Engr Economy for CE | 4.0 SH |
| Yr 3 FL | C ENG U302 Advanced Writing in Tech Prof | 4.0 SH |
| Yr 3 FL | NU Core Course or Elective | 4.0 SH |
| Yr 3 FL | Engrg Math/Science Elective | 4.0 SH |
| | Semester Subtotal | 16.0 SH |

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|---------|-----------------------------|---------|
| Yr 3 SP | A CIV U340 Soil Mechanics | 4.0 SH |
| | Coreq(s): A CIV U341 | |
| Yr 3 SP | A CIV U341 Lab for CIV U340 | 1.0 SH |
| | Coreq(s): A CIV U340 | |
| Yr 3 SP | A CIV U331 Fluid Mechanics | 4.0 SH |
| Yr 3 SP | CIV Technical Elective | 4.0 SH |
| Yr 3 SP | CIV Technical Elective | 4.0 SH |
| | Semester Subtotal | 17.0 SH |

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|---------|----------------------------|--------|
| Yr 3 S1 | NU Core Course or Elective | 4.0 SH |
| Yr 3 S1 | NU Core Course or Elective | 4.0 SH |
| | Semester Subtotal | 8.0 SH |

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|---------|-------------------------|--------|
| Yr 3 S2 | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |

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|---------|-------------------------|--------|
| Yr 4 FL | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |

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|---------|--|---------|
| Yr 4 SP | A CIV U500 Professional Issues in Engr | 1.0 SH |
| Yr 4 SP | A CIV U769 Senior Design Project | 5.0 SH |
| Yr 4 SP | CIV Technical Elective | 4.0 SH |
| Yr 4 SP | CIV Technical Elective | 4.0 SH |
| Yr 4 SP | NU Core Course or Elective | 4.0 SH |
| | Semester Subtotal | 18.0 SH |

MDS 010 BSCE Civil Engineering Div A

| | | |
|---------|---------------------------------------|---------|
| Yr 1 FL | C CHM U151 General Chem for Engineers | 4.0 SH |
| | Coreq(s): C CHM U152 C CHM U153 | |
| Yr 1 FL | C CHM U153 Recitation for CHM U151 | 0.0 SH |
| | Coreq(s): C CHM U151 C CHM U152 | |
| Yr 1 FL | A GE U110 Engineering Design | 4.0 SH |
| Yr 1 FL | A GE U100 Intro to the Study of Engr | 1.0 SH |
| Yr 1 FL | C MTH U241 Calculus 1 for Sci/Engr | 4.0 SH |
| Yr 1 FL | NU Core course or Elective | 4.0 SH |
| | Semester Subtotal | 17.0 SH |

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|---------|--|---------|
| Yr 1 SP | C MTH U242 Calculus 2 for Sci/Engr | 4.0 SH |
| Yr 1 SP | C PHY U151 Physics for Engineering 1 | 4.0 SH |
| | Coreq(s): C PHY U152 C PHY U153 | |
| Yr 1 SP | C PHY U152 Lab for PHY U151 | 1.0 SH |
| | Coreq(s): C PHY U151 C PHY U153 | |
| Yr 1 SP | C PHY U153 Interact Learn for PHY U151 | 0.0 SH |
| | Coreq(s): C PHY U151 C PHY U152 | |
| Yr 1 SP | A GE U111 Engr Prob Solv and Comp | 4.0 SH |
| Yr 1 SP | C ENG U111 College Writing | 4.0 SH |
| | Semester Subtotal | 17.0 SH |

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|---------|-------------------------|--------|
| Yr 1 S1 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |

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|---------|-------------------------|--------|
| Yr 1 S2 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |

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|---------|--|---------|
| Yr 2 FL | A CIV U334 Environmental Engr 1 | 4.0 SH |
| Yr 2 FL | A CIV U260 Civil Engineering Materials Coreq(s): A CIV U261 A CIV U262 | 3.0 SH |
| Yr 2 FL | A CIV U261 Materials & Measurements Lab Coreq(s): A CIV U260 A CIV U264 | 2.0 SH |
| Yr 2 FL | A CIV U221 Statics & Strength of Material Coreq(s): A CIV U222 | 4.0 SH |
| Yr 2 FL | C MTH U341 Calculus 3 for Sci/Engr Coreq(s): C MTH U342 | 4.0 SH |
| Yr 2 FL | A CIV U222 Recitation for CIV U221 Coreq(s): A CIV U221 | 0.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 2 SP | A CIV U320 Structural Analysis 1 Coreq(s): A CIV U321 | 4.0 SH |
| Yr 2 SP | C MTH U343 Diff Eq and Lin Alg for Engr Coreq(s): C MTH U344 | 4.0 SH |
| Yr 2 SP | C PHY U155 Physics for Engineering 2 Coreq(s): C PHY U156 C PHY U157 | 4.0 SH |
| Yr 2 SP | C PHY U156 Lab for PHY U155 Coreq(s): C PHY U155 C PHY U157 | 1.0 SH |
| Yr 2 SP | C PHY U157 Interact Learn for PHY U155 Coreq(s): C PHY U155 C PHY U156 | 0.0 SH |
| Yr 2 SP | A CIV U321 Recitation for CIV U320 Coreq(s): A CIV U320 | 0.0 SH |
| Yr 2 SP | A CIV U300 Intro to Engr Coop Education | 1.0 SH |
| Yr 2 SP | ECN U115 or ECN U116 | 4.0 SH |
| | Semester Subtotal | 18.0 SH |
| Yr 2 S1 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 2 S2 | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 3 FL | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 3 SP | A CIV U340 Soil Mechanics Coreq(s): A CIV U341 | 4.0 SH |
| Yr 3 SP | A CIV U341 Lab for CIV U340 Coreq(s): A CIV U340 | 1.0 SH |
| Yr 3 SP | A CIV U331 Fluid Mechanics | 4.0 SH |
| Yr 3 SP | CIV Technical Elective | 4.0 SH |
| Yr 3 SP | Engrg Math/Science Elective | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 3 S1 | A CIV U324 Reinforced Concrete Design 1 | 4.0 SH |
| Yr 3 S1 | Engrg General Elective | 4.0 SH |
| | Semester Subtotal | 8.0 SH |
| Yr 3 S2 | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 4 FL | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 4 SP | C ENG U302 Advanced Writing in Tech Prof | 4.0 SH |
| Yr 4 SP | A CIV U500 Professional Issues in Engr | 1.0 SH |
| Yr 4 SP | CIV Technical Elective | 4.0 SH |
| Yr 4 SP | CIV Technical Elective | 4.0 SH |
| Yr 4 SP | Engrg General Elective | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 4 S1 | A CIV U464 Prob & Engr Economy for CE | 4.0 SH |
| Yr 4 S1 | Engrg General Elective | 4.0 SH |
| | Semester Subtotal | 8.0 SH |

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| Yr 4 S2 | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 5 FL | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 5 SP | Engrg General Elective | 4.0 SH |
| Yr 5 SP | Engrg General Elective | 4.0 SH |
| Yr 5 SP | CIV Technical Elective | 4.0 SH |
| Yr 5 SP | A CIV U76X | 5.0 SH |
| | Semester Subtotal | 17.0 SH |

MDS 010 BSCE Civil Engineering Div N

| | | |
|---------|--|---------|
| Yr 1 FL | C CHM U151 General Chem for Engineers Coreq(s): C CHM U152 C CHM U153 | 4.0 SH |
| Yr 1 FL | C CHM U153 Recitation for CHM U151 Coreq(s): C CHM U151 C CHM U152 | 0.0 SH |
| Yr 1 FL | A GE U110 Engineering Design | 4.0 SH |
| Yr 1 FL | A GE U100 Intro to the Study of Engr | 1.0 SH |
| Yr 1 FL | C MTH U241 Calculus 1 for Sci/Engr | 4.0 SH |
| Yr 1 FL | NU Core course or Elective | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 1 SP | C MTH U242 Calculus 2 for Sci/Engr | 4.0 SH |
| Yr 1 SP | C PHY U151 Physics for Engineering 1 Coreq(s): C PHY U152 C PHY U153 | 4.0 SH |
| Yr 1 SP | C PHY U152 Lab for PHY U151 Coreq(s): C PHY U151 C PHY U153 | 1.0 SH |
| Yr 1 SP | C PHY U153 Interact Learn for PHY U151 Coreq(s): C PHY U151 C PHY U152 | 0.0 SH |
| Yr 1 SP | A GE U111 Engr Prob Solv and Comp | 4.0 SH |
| Yr 1 SP | C ENG U111 College Writing | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 1 S1 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 1 S2 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 2 FL | A CIV U334 Environmental Engr 1 | 4.0 SH |
| Yr 2 FL | A CIV U222 Recitation for CIV U221 Coreq(s): A CIV U221 | 0.0 SH |
| Yr 2 FL | C MTH U341 Calculus 3 for Sci/Engr Coreq(s): C MTH U342 | 4.0 SH |
| Yr 2 FL | A CIV U221 Statics & Strength of Material Coreq(s): A CIV U222 | 4.0 SH |
| Yr 2 FL | A CIV U300 Intro to Engr Coop Education | 1.0 SH |
| Yr 2 FL | A CIV U260 Civil Engineering Materials Coreq(s): A CIV U261 A CIV U262 | 3.0 SH |
| Yr 2 FL | A CIV U261 Materials & Measurements Lab Coreq(s): A CIV U260 A CIV U264 | 2.0 SH |
| | Semester Subtotal | 18.0 SH |
| Yr 2 SP | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 2 S1 | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 2 S2 | VACATION | 0.0 SH |
| | Semester Subtotal | 0.0 SH |

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|---------|--|---------|
| Yr 3 FL | C PHY U155 Physics for Engineering 2 | 4.0 SH |
| | Coreq(s): C PHY U156 C PHY U157 | |
| Yr 3 FL | C PHY U156 Lab for PHY U155 | 1.0 SH |
| | Coreq(s): C PHY U155 C PHY U157 | |
| Yr 3 FL | C PHY U157 Interact Learn for PHY U155 | 0.0 SH |
| | Coreq(s): C PHY U155 C PHY U156 | |
| Yr 3 FL | A CIV U331 Fluid Mechanics | 4.0 SH |
| Yr 3 FL | A CIV U320 Structural Analysis 1 | 4.0 SH |
| | Coreq(s): A CIV U321 | |
| Yr 3 FL | A CIV U321 Recitation for CIV U320 | 0.0 SH |
| | Coreq(s): A CIV U320 | |
| Yr 3 FL | ECN U115 or ECN U116 | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 3 SP | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 3 S1 | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 3 S2 | A CIV U340 Soil Mechanics | 4.0 SH |
| | Coreq(s): A CIV U341 | |
| Yr 3 S2 | A CIV U341 Lab for CIV U340 | 1.0 SH |
| | Coreq(s): A CIV U340 | |
| Yr 3 S2 | C MTH U343 Diff Eq and Lin Alg for Engr | 4.0 SH |
| | Coreq(s): C MTH U344 | |
| | Semester Subtotal | 9.0 SH |
| Yr 4 FL | A CIV U324 Reinforced Concrete Design 1 | 4.0 SH |
| Yr 4 FL | C ENG U302 Advanced Writing in Tech Prof | 4.0 SH |
| Yr 4 FL | A CIV U500 Professional Issues in Engr | 1.0 SH |
| Yr 4 FL | CIV Technical Elective | 4.0 SH |
| Yr 4 FL | Engrg Math/Science Elective | 4.0 SH |
| | Semester Subtotal | 17.0 SH |
| Yr 4 SP | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 4 S1 | CO-OP | 0.0 SH |
| | Semester Subtotal | 0.0 SH |
| Yr 4 S2 | Engrg General Elective | 4.0 SH |
| Yr 4 S2 | Engrg General Elective | 4.0 SH |
| | Semester Subtotal | 8.0 SH |
| Yr 5 FL | A CIV U464 Prob & Engr Economy for CE | 4.0 SH |
| Yr 5 FL | CIV Technical Elective | 4.0 SH |
| Yr 5 FL | Engrg General Elective | 4.0 SH |
| Yr 5 FL | CIV Technical Elective | 4.0 SH |
| | Semester Subtotal | 16.0 SH |
| Yr 5 SP | Engrg General Elective | 4.0 SH |
| Yr 5 SP | Engrg General Elective | 4.0 SH |
| Yr 5 SP | CIV Technical Elective | 4.0 SH |
| Yr 5 SP | A CIV U76X | 5.0 SH |
| | Semester Subtotal | 17.0 SH |