

School of Engineering and Technology

Student ID: _____
 Student Name: _____
 Program Entry Date: _____

Degree/Program Plan: B.S. Motorsports Engineering
 Program/Plan Code: ENGR1 / MSTRSENGRBS
 Requirement Term: 8/15/2018 [4188]

1st Semester

| Course# | Units | Title |
|------------|-------|---------------------------------|
| ENG-W 131 | 3 | Reading, Writing, and Inquiry I |
| MATH 16500 | 4 | Calculus I |
| ENGR 12500 | 1 | First Year Seminar |
| CHEM-C 105 | 3 | Principles of Chemistry I |
| MSTE 27200 | 3 | Intro to Motorsports |
| COMM-R 110 | 3 | Fund of Speech Communication |

Credit Hours 17

2nd Semester

| Course# | Units | Title |
|------------|-------|------------------------------|
| MATH 16600 | 4 | Calculus II |
| PHYS 15200 | 4 | Mechanics |
| MATH 17100 | 3 | Multidimensional Mathematics |
| MSTE 31201 | 3 | Business of Motorsports |
| MSTE 29701 | 2 | Modeling for Motorsports |

Credit Hours 16

3rd Semester

| Course# | Units | Title |
|------------|-------|---------------------------------|
| MATH 26100 | 4 | Multivariate Calculus |
| PHYS 25100 | 5 | Heat, Electricity & Optics |
| ME 20000 | 3 | Thermodynamics |
| ME 27000 | 3 | Basic Mechanics I |
| MSTE 29800 | 2 | Computer Modeling & Programming |

Credit Hours 17

4th Semester

| Course# | Units | Title |
|------------|-------|------------------------------------|
| ECE 20400 | 4 | Electrical and Electronic Circuits |
| ME 27400 | 3 | Basic Mechanics II |
| ME 27200 | 3 | Mechanics of Materials |
| MET 33800 | 4 | Manufacturing Processes |
| MATH 26600 | 3 | Ordinary Differential Equations |

Credit Hours 17

5th Semester

| Course# | Units | Title |
|------------|-------|------------------------------------|
| MSTE 47200 | 3 | Vehicle Dynamics |
| MSTE 33001 | 2 | Data Acquisition in Motorsports I |
| ME 31002 | 3 | Fundamentals of Fluid Mechanics |
| ME 32501 | 1 | Fluids lab |
| MSTE 34000 | 3 | Dynamic Systems and Signals |
| MSTE 35000 | 3 | Computer Aided Design and Analysis |

Credit Hours 15

6th Semester

| Course# | Units | Title |
|---------------|-------|------------------------------------|
| MSTE 33100 | 3 | Data Acquisition in Motorsports II |
| STAT Elective | 3 | STAT Elective |
| ME 34400 | 3 | Intro to Engineering Materials |
| TCM 36000 | 2 | Comm in Engineering Practice |
| MSTE 32000 | 3 | Motorsports Design I |
| MSTE 31700 | 1 | Motorsports Practicum II |

Credit Hours 15

7th Semester

| Course# | Units | Title |
|---------------|-------|--|
| MSTE 48200 | 3 | Motorsports Aerodynamics |
| ME 48200 | 3 | Control Systems Analysis and Des. |
| MSTE 41700 | 1 | Motorsports Practicum III |
| Gen Ed Elect | 3 | See approved Arts & Humanities list |
| Tech Elective | 3 | See approved course list |
| Gen Ed Elect | 3 | See approved Cultural Understanding list |

Credit Hours 16

8th Semester

| Course# | Units | Title |
|---------------|-------|-----------------------------------|
| MSTE 41400 | 3 | Motorsports Design II |
| MSTE 42600 | 3 | Internal Combustion Engines |
| Tech Elective | 3 | See approved course list |
| Gen Ed Elect | 3 | See approved Social Sciences list |
| PHIL-P 120 | 3 | Ethics |

Credit Hours 15

Total Hours 128

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Degree/Program Plan: B.S. Motorsports Engineering
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 Requirement Term: 8/15/2018 [4188]

Core Requirements - MSTE Specialty

| Course# | Units | Term | Grade | Pre-requisites | Comments |
|------------|-------|------|-------|--|----------|
| ECE 20400 | 4 | | | P: PHYS 25100 and MATH 26100 | |
| ENGR 12500 | 1 | | | | |
| ME 20000 | 3 | | | P: PHYS 15200 and C: MATH 26100 and ME 22501 and CHEM-C 105 | |
| ME 27000 | 3 | | | P: PHYS 15200 and C: MATH 26100 | |
| ME 27200 | 3 | | | P: ME 27000 | |
| ME 27400 | 3 | | | P: ME 27000 and C: MATH 26600 | |
| ME 31002 | 3 | | | P: ME 20000 and ME 27400 and MATH 26600 and C: ME 32501 | |
| ME 32501 | 1 | | | C: ME 31002 | |
| ME 34400 | 3 | | | P: CHEM-C 105 and Jr Standing | |
| ME 48200 | 3 | | | | |
| MET 33800 | 4 | | | P: MATH 15400 & TECH 104 (or MSTE 29701) | |
| MSTE 27200 | 3 | | | | |
| MSTE 29701 | 2 | | | | |
| MSTE 29800 | 2 | | | P: MSTE 27200 and admission for continuation in MSTE program | |
| MSTE 31201 | 3 | | | P: MSTE 27200 and ENG-W 131 | |
| MSTE 31700 | 1 | | | P: MSTE 35000 and Junior standing | |
| MSTE 32000 | 3 | | | P: MSTE 35000 and MSTE 47200 | |
| MSTE 33001 | 2 | | | C: ECE 20400 | |
| MSTE 33100 | 3 | | | P: MSTE 33001 and MSTE 47200 | |
| MSTE 34000 | 3 | | | P: ME 27000 and ME 27400 and MATH 26600 | |
| MSTE 35000 | 3 | | | P: MSTE 29701 C: ME 27000 | |
| MSTE 41400 | 3 | | | P: MSTE 32000 and 47200 and P or C: MSTE 48200 | |
| MSTE 41700 | 1 | | | P: MSTE 31700 | |
| MSTE 42600 | 3 | | | P: ME 20000 | |
| MSTE 47200 | 3 | | | P: ME 27000 and ME 27400 | |
| MSTE 48200 | 3 | | | P: MSTE 35000 and ME 31002 and MSTE 47200 | |
| | | | | | |
| total: 69 | | | | | |

Technical Electives Requirements

| Course# | Units | Term | Grade | Pre-requisites | Comments |
|---------------|-------|------|-------|---|----------|
| Tech Elective | 3 | | | | |
| Tech Elective | 3 | | | (MSTE-I 41000 Internship may be used as Tech Elective (credit varies) with permission from MSTE Prog Director | |
| total: 6 | | | | | |

See ENT site for complete list of acceptable Tech Electives

<http://www.engr.iupui.edu/departments/ent/undergrad/mste/index.php>

Math and Science Requirements

| Course# | Units | Term | Grade | Pre-requisites | Comments |
|---------------|-------|------|-------|---|----------|
| MATH 16500 | 4 | | | P: MATH 15400 or 15900 or Placement | |
| CHEM C 105 | 3 | | | | |
| MATH 16600 | 4 | | | P: MATH 16500 | |
| PHYS 15200 | 4 | | | P or C: MATH 16600 | |
| MATH 17100 | 3 | | | P: MATH 15400 or 15900 or Placement | |
| MATH 26100 | 4 | | | P: MATH 16600 and MATH 17100 | |
| PHYS 25100 | 5 | | | P: PHYS 15200 & MATH 16500,16600,17100; C: MATH 26100 | |
| MATH 26600 | 3 | | | P: MATH 16600 and MATH 17100 | |
| Stat Elective | 3 | | | See ENT web site | |
| total: 33 | | | | | |

General Education Requirements - Communications, Humanites, Social Science

| Course# | Units | Term | Grade | Pre-requisites | Comments |
|-------------|-------|------|-------|---|----------|
| ENG-W131 | 3 | | | P: Placement | |
| COMM-R 110 | 3 | | | P: Placement | |
| TCM 36000 | 2 | | | P: ENG-W 131 and COMM-R 110 | |
| Gen Ed Elec | 3 | | | See ENT web site for approved Soci | |
| Gen Ed Elec | 3 | | | See ENT web site for approved Cultural Understanding list | |
| Gen Ed Elec | 3 | | | See ENT web site approved Arts & Humanities list | |
| PHIL-P 120 | 3 | | | | |
| total: 20 | | | | | |



128 Total Credit Hours for BS Degree

Department of Engineering Technology: 274-2363
 Offices: ET 201