Advanced Manufacturing and Skilled Trades

Technical Studies: Motorsports Technology

Award: Associate of Applied Science
Length: 66-68 credits

Motorsports Technician

Award: Career Studies Certificate
Length: 25-27 credit

PROGRAM CONTENT COMPARISON		
	Motorsports Technology (AAS)	**Motorsports Technician (CSC)**
ENG 111 (3)	●	
MTH 111 (3) or MTH 167(5)	●	●
CAD 241 (3) or PHY 131 (3)	●	
CST 110 (3)	●	
SOC EEE (3)	●	
HUM EEE (3)	●	
ITE 115 (3)	●	
MTS 126 (3)	●	●
MTS 130 (3)	●	●
MTS 131 (3)	●	●
MTS 132 (3)	●	
MTS 135 (3)	●	
MTS 140 (3)	●	●
MTS 210 (3)	●	●
MTS 211 (3)	●	●
MTS 240 (3)	●	
MTS 295 (3)	●	
MAC 161 (3)	●	●
MTS 298 (3)	●	
MTS 299 (1)	●	
MTS EEE (3)	●	
MTS EEE (3)	●	
PED/HLT EEE (1)	●	
SDV 108 (1)	●	●

Technical Studies: Motorsports Technology

Award: Associate of Applied Science
Length: 66-68 credits

Purpose: To provide a rapid response to an anticipated workforce shortage for the motorsports industry within the mid-Atlantic region. The student will be engaged in mastering the academic and technical skill sets required for employment.

Program Learning Outcomes: A student will be able to:

- demonstrate knowledge of auto racing and race vehicles, their characteristics, specifications, rules, regulations, systems, current technology, and testing methods;
- demonstrate knowledge about components, systems, configuration, classification, terminology, and principles of functioning of high performance engines used in race competitions;
- using codes and specifications, demonstrate the ability to assemble, test, and apply corrective methods to resolve technical issues related to maximum power performance of race engines;
- demonstrate knowledge of aerodynamics, stability, and control of race vehicles, and the ability to design, model, and fabricate structures and bodies of race vehicles using blueprints and safety specifications;
- demonstrate knowledge of engineering materials, manufacturing processes, and testing techniques, and skill to conceive fabricate and/or assemble suspension, traction, steering and braking systems of race vehicles.

Occupational Objectives: Employment opportunities for graduates of this program include chassis technician, set-up assistant, crew member, block assembly assistant, engine builder, or engine machine technician in racing environments.

General Education Requirements (15-17 Credits):

CST	110	Introduction to Communication (3)
ENG	111	College Composition I (3)
HUM	EEE	Humanities Elective (3) *See pages 163-165*
MTH	111	Basic Technical Math (3)
		[or MTH 167 PreCalculus with Trigonometry (5)]
SOC	EEE	Social Sciences Elective (3) *See pages 163-165*

Program Requirements (51 Credits):

CAD	241	Parametric Solid Modeling I (3)
		[or PHY 131 Applied Physics (3)]
ITE	115	Intro. to Computer Applications & Concepts (3)
MTS	126	Motorsports Technology II (3)
MTS	130	Motorsports Structural Technology I (3)
MTS	131	Motorsports Structural Technology II (3)
MTS	132	Motorsports Structural Technology III (3)
MTS	135	Sheet Metal Fabrication (3)
MTS	140	Stock Car Engines I (3)
MTS	210	Race Car Setup I (3)
MTS	211	Race Car Setup II (3)
MTS	240	Stock Car Engines II (3)
MAC	161	Machine Shop Practices (3)
MTS	295	Introduction to Pit Stop (3)
MTS	298	Dyno Engine Performance (3)
MTS	299	Supervised Study in Motorsports (1)
MTS	EEE	Electives (6)
PED/HLT	EEE	Wellness Elective (1)
SDV	108	College Survival Skills (1)

Minimum required for degree: 66-68 credits

Motorsports Technician

Award: Career Studies Certificate
Length: 25-27 credits
Purpose: This program is designed to provide fundamental skills for an entry-level technician in a high performance race shop.

Admission Requirements: Students may be required to complete a Motorsports Program Application, entrance test and

interview. Students deficient in computer skills and/or fundamental motorsports terminology must complete additional coursework. Tools and daily uniforms for the program are required.

MTH	111	Basic Technical Math (3)
		[or MTH 167 PreCalculus with Trigonometry (5)]
MTS	126	Motorsports Technology II (3)
MTS	130	Motorsports Structural Technology I (3)
MTS	131	Motorsports Structural Technology II (3)
MTS	140	Stock Car Engines I (3)
MTS	210	Race Car Setup I (3)
MTS	211	Race Car Setup II (3)
MAC	161	Machine Shop Practices (3)
SDV	108	College Survival Skills (1)

Minimum required for the career studies certificate: 25-27 credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Technology Studies: Specialization: Motorsports Technology 2018-2019

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8	MOD9
Met									

Program Prerequisites before being accepted into the program:
MTS 95 (co-requisite if not tested out)

NOTE: Classes that are shaded meet the requirements of the Career Studies Certificate in Motorsports Technician.

Fall Semester Courses:			**Completed**
ENG 111	College Composition I	3.0	_____
MTH 111 or MTH 161	Basic Technical Math Precalculus w/trigonometry	3.0 5.0	_____
MTS 130	Motorsports Structural Technology I	3.0	_____
MTS 210	Race Car Setup I	3.0	_____
MTS 295	Machining and Welding	3.0	_____
SDV 108	College Survival Skills	1.0	_____
Next actions which follow or can be accomplished during the First semester	**Total**	16-18	

1.During Early Bird Registration, meet with your academic advisor to enroll in next semester.

Spring Semester Courses:			**Completed**
CST 110	Introduction to Speech Communication	3.0	_____
ITE 115	Introduction to Computer Applications and Concepts	3.0	_____
MTS 131	Motorsports Structural Technology II	3.0	_____
MTS 126	Motorsports Technology II	3.0	_____
MTS 140	Stock Car Engines I	3.0	_____
MTS 211	Race Car Setup II	3.0	_____
Next actions which follow or can be accomplished during the Second semester	**Total**	18	

1.During Early Bird Registration, meet with your academic advisor to enroll in next semester.

Fall Semester Courses:			**Completed**
CAD 241	Parametric Solid Modeling I	3.0	_____
MTS 132	Motorsports Structural Technology III	3.0	_____
MTS 135	Sheet Metal Fabrication	3.0	_____
MTS 240	Stock Car Engines	3.0	_____
MTS 298	Topics In	3.0	_____
	Total	15	

Next actions which follow or can be accomplished during the Third semester

1. During Early Bird Registration, meet with your academic advisor to enroll in next semester.
2. Apply for graduation.
3. Meet with academic advisor or transfer advisor to discuss four-year transfer options.

Spring Semester Courses:			**Completed**
MTS 295	Introduction to Pit Stop	3.0	_____
MTS EEE	Motorsports Elective	3.0	_____
MTS EEE	Motorsports Elective	3.0	_____
HUM EEE	Humanities Elective	3.0	_____
MTS 299	Supervised Study In	1.0	_____
SOC EEE	Social Sciences Elective	3.0	_____
PED/HLT EEE	Wellness Elective	1.0	_____
	Total	17	