Auto Technology Program

ISLOs, PSLOs, CSLOs, Mapping, and Assessment Plan

			Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
			F 2013	S 2014	F 2014	S 2015	F 2015	S 2016	F 2016	S 2017	F 2017	S 2018	F 2018	S 2019
	INSTITUTIONAL STUDENT LEARNING OUTCOMES - ISLOs													
ISLO 1	**COMMUNICATION**													
1A	Read													
1B	Listen													
1C	Write													
1D	Dialogue													
ISLO 2	**TECHNOLOGY AND INFORMATION COMPETENCY**													
2A	Demonstrate Technical Literacy													
2B	Apply Technology													
2C	Access Information													
2D	Evaluate and Examine Information													
ISLO 3	**CRITICAL AND CREATIVE THINKING**													
3A	Inquire													
3B	Analyze													
3C	Problem Solve													
3D	Express													
ISLO 4	**CITIZENSHIP**													
4A	Ethics													
4B	Diversity													
4C	Sustainability/Global Awareness													
4D	Personal Responsibility													

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	AUTO TECHNOLOGY PROGRAM OUTCOMES - PSLOs	**Related ISLOs**	Enter "P" for Planned; "C" for Completed											
PSLO A	Meet the requirements to obtain the Auto Skill Certificate to gain entry level jobs in the auto service field.	1A, 1B; 2A, 2B, 2C, 2D; 3A, 3B, 3C; 4D												
PSLO B	Develop advanced continuing education courses to advance the skills and knowledge of currently employed automotive technicians and students.	1A, 1B, 1C, 1D; 2A, 2B, 2C, 2D; 3A, 3B, 3C; 4D												
PSLO C	Sevelop subject modules based on industry and NATEF/ASE certification needs.	1A, 1B, 1C, 1D; 2A, 2B, 2C, 2D; 3A, 3B, 3C, 3D; 4A, 4B, 4C, 4D,												
	Total Number of Program Outcomes (manually enter)	3	3	3	3	3	3	3	3	3	3	3	3	3
	Number of Program Outcomes Assessed (per formula)		0	0	0	0	0	0	0	0	0	0	0	0
	Percentage of Program Outcomes Assessed (per formula)		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AUTOMOTIVE ANALYSIS A.A. Degree Outcomes - same as the PSLOs.														
AUTOMOTIVE ANALYSIS A.S. Degree Outcomes - same as the PSLOs.														
AIR CONDITIONING AND BODY ELECTRICAL CERTIFICATE OF ACHIEVEMENT Outcomes - same as the PSLOs.														
ALIGNMENT AND BRAKE CERTIFICATE OF ACHIEVEMENT Outcomes - same as the PSLOs.														
AUTOMATIC TRANSMISSION CERTIFICATE OF ACHIEVEMENT Outcomes - same as the PSLOs.														
AUTOMOTIVE ENGINE MACHINING CERTIFICATE OF ACHIEVEMENT Outcomes - same as the PSLOs.														
EMISSION AND DRIVEABILITY TUNE-UP CERTIFICATE OF ACHIEVEMENT Outcomes - same as the PSLOs.														
MASTER AUTOMOTIVE TECHNICIAN CERTIFICATE OF ACHIEVEMENT Outcomes - same as the PSLOs.														
POWERTRAIN CERTIFICATE OF ACHIEVEMENT Outcomes - same as the PSLOs.														
ENTRY LEVEL AUTOMOTIVE SERVICE AND REPAIR SKILLS CERTIFICATE Outcomes - same as the PSLOs.														

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	AUTO TECHNOLOGY COURSE OUTCOMES - CSLOs	**Related PSLO**	Enter "P" for Planned; "C" for Completed											
	AUTO 1 AUTOMOTIVE DATA ACQUISITION		F13	S14	F14	S15	F15	S16	F16	S17	F17	S18	F18	S19
CSLO 1	Develop a repair order estimate using information from the Mitchell on Demand program.	A, B, C												
CSLO 2	Locate diagnostic trouble code charts in Alldata.	A												
CSLO 3	Use the Alldata program to develop a list of technical service bulletins for a vehicle.	B												
CSLO 4	Identify repair procedure information in Alldata.	A												
CSLO 5	Describe the type of information available on the IATN website.	A												
	AUTO 28 INDEPENDENT STUDY													
	AUTO 31 AUTOMOTIVE EMISSION CONTROL SYSTEMS													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Determine the engine, cooling system, exhaust system, electrical system, and vehicle chassis can be emission tested properly and safely.	A												
CSLO 3	Identify visually all the emission control components present and to determine pass/fail according to bar guidelines.	A				C								
	AUTO 34 ADVANCED BAR SMOG CHECK INSPECTION TRAINING (LEVEL 2)													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Demonstrate ability to calibrate an emission inspection system.	A, C												
CSLO 3	Demonstrate knowledge, skills and abilities in performing smog check emission tests on various vehicle designs.	A, C					C							
	AUTO 59 INTRODUCTION TO AUTOMOTIVE SERVICE		F13	S14	F14	S15	F15	S16	F16	S17	F17	S18	F18	S19
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C			C									
CSLO 2	Demonstrate the appropriate selection and use of tools.	A												
CSLO 3	Describe the influence of compression ratio on fuel consumption.	A												

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			F 2013	S 2014	F 2014	S 2015	F 2015	S 2016	F 2016	S 2017	F 2017	S 2018	F 2018	S 2019
CSLO 4	Compare and contrast engines designed to burn gasoline vs. dielsel fuel.	A												
CSLO 5	Analyze engine condition based on the results of a compression test.	A												

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			F 2013	S 2014	F 2014	S 2015	F 2015	S 2016	F 2016	S 2017	F 2017	S 2018	F 2018	S 2019
	AUTO 60 SKILL AND SPEED DEVELOPMENT		Enter "P" for Planned; "C" for Completed											
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C,												
CSLO 2	Diagnose the cause of a customer complaint and develop a plan to correct the problem.	B												
CSLO 3	Demonstrate the ability to select and use the appropriate tools and equipment to repair an identified vehicle problem.	B												
CSLO 4	Develop a repair order including an estimate of the labor time necessary to complete the job.	B, C												
CSLO 5	Compare the students time to perform a job to the published labor time assigned to that job.	B, C												
	AUTO 61 VEHICLE AND ENGINE ANALYSIS													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Diagnose based engine condition using data from various tests.	A												
CSLO 3	Diagnose engine fuel and ignition control systems related to engine performance.	A			C									
	AUTO 62A ENGINE FUEL SYSTEM PRINCIPLES AND CONTROLS		F13	S14	F14	S15	F15	S16	F16	S17	F17	S18	F18	S19
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Demonstrate different methods to evaluate fuel properties.	A												
CSLO 3	Diagnose fuel delivery and air delivery system performance.	A					C							
CSLO 4	Identify mechanical fuel metering circuits.	A												
	AUTO 62B COMPUTER CONTROLLED CARBURETION AND FUEL INJECTION													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Diagnose electronic controlled fuel delivery and air delivery system performance.	A, B												
CSLO 3	Analyze test results and develop repair strategy.	A, B												
CSLO 4	Demonstrate proper service on emission control systems.	A, B												
	AUTO 63 ADVANCED ENGINE PERFORMANCE DIAGNOSIS													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Diagnose and repair emission control system failure.	A, B, C												
CSLO 3	Develop diagnostic strategies and develop testing methods to validate component failure related to vehicle failing smog tests.	A, B, C												

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	AUTO 64 HYDRAULIC AND BRAKE SYSTEMS		Enter "P" for Planned; "C" for Completed											
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment, and vehicle safety practices.	A, B, C												
CSLO 2	Compare and contrast drum brake and disc brake systems.	A												
CSLO 3	Evaluate the condition of vehicle braking systems and list needed parts.	A												
CSLO 4	Evaluate the serviceability of brake drums and rotors by using appropriate precision measuring tools.	B												
CSLO 5	Compute hydraulic system problems by applying the principles of Pascal's law.	B			C									
	AUTO 66A ENGINE RECONDITIONING													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Demonstrate knowledge of acceptable tolerances for valve stem wear, margin thickness, and valve seat width.	B												
CSLO 3	Evaluate cylinder head distortion.	B												
CSLO 4	Evaluate valve springs for reuse.	B												
CSLO 5	Demonstrate how to resurface valve seats using grinding or seat cutting equipment producing a three angle valve seat meeting established criteria for valve rim overlap and seat width.	B			C									
	AUTO 66B ENGINE RECONDITIONING		F13	S14	F14	S15	F15	S16	F16	S17	F17	S18	F18	S19
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Describe how a cylinder block deck surface can be made parallel with the center line of the main bearing bore.	A, B												
CSLO 3	Evaluate cylinder bore condition for roundness and taper.	A, B												
CSLO 4	Demonstrate how connecting rods are weighed and balanced.	C												
CSLO 5	Demonstrate how to produce a specific (RA) surface finish on a cylinder wall.	B												
	AUTO 68A BASIC AUTOMATIC TRANSMISSIONS													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Identify the components in a basic planetary gearset.	A												
CSLO 3	Describe how different gear ratios are obtained from a planetary gearset.	A, B												
CSLO 4	Describe the purpose of a transmission valve body.	A, B												
CSLO 5	Identify the major components in a torque converter.	B												

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	AUTO 69 AUTOMOTIVE AIR CONDITIONING AND HEATING		Enter "P" for Planned; "C" for Completed											
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 3	Demonstrate the understanding of refrigerant handling by taking and passing the federal required refrigerant handling license exam within the fifth week of the course.	A, C												
CSLO 3	Diagnose and repair engine coolant system performance.	A, B												
CSLO 4	Diagnose and repair auto air condition system performance.	A, B												
	AUTO 71A AUTOMOTIVE ELECTRICAL SYSTEMS													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Identify electrical circuit elements.	A												
CSLO 3	Evaluate electrical connections based on measured voltage drop.	B												
CSLO 4	Determine current flow in a circuit.	B												
CSLO 5	Compute voltage, amperage, and resistance using Ohm's law.	B, C												
	AUTO 75 AUTOMOTIVE ELECTRONICS													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Demonstrate the understanding of Ohm's law and Kirhoff's law by solving complex series and parallel circuit.	A		C										
CSLO 3	Demonstrate the understanding of computer circuits by performing proper on vehicle measurements using computerized diagnostic equipment.	A, B												
CSLO 4	Demonstrate the interpretation of wave forms using a digital storage ocilloscope.	A, B												
	AUTO 79 SUSPENSION AND WHEEL ALIGNMENT		F13	S14	F14	S15	F15	S16	F16	S17	F17	S18	F18	S19
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Compare and contrast shock absorber and strut systems.	A, B												
CSLO 3	Demonstrate how to set up and use electronic alignment systems to measure and adjust caster, camber, and toe angles.	B			C									
CSLO 4	Demonstrate how to dynamically balance a tire/wheel assembly.	B												
	AUTO 80 AUTOMOTIVE POWERTRAINS MANUAL TRANSMISSIONS													
CSLO 1	Demonstrate effective knowledge of personal, shop, equipment and vehicle safety practices.	A, B, C												
CSLO 2	Describe how mechanical clutch linkage is adjusted.	A												
CSLO 3	Demonstrate how to measure differential ring gear back-lash.	B												

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CSLO 4	Demonstrate how to measure differential pinion bearing rotating torque.	B												
	AUTO 95 INTERNSHIPS IN AUTOMOTIVE TECHNOLOGY													
CSLO 1	Demonstrate safe procedures in the automotive repair environment.													
CSLO 2	Evaluate learning experience in writing or by project related to learning objectives.													
CSLO 3	Through work experience, under the direction of worksite supervisor, perform duties related to learning objectives.													
CSLO 4	Establish on-the-job learning objectives that are related to new or expanded responsibilities or that contribute to current occupational or educational goals.													
	AUTO 150 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY PROFESSION													
CSLO 1	Evaluate the area of interest within the career field.													
CSLO 2	Compare the skill sets required for your selected major.													
CSLO 3	Develop an educational plan for the next two years.													
	AUTO 300 SELECTED TOPICS IN AUTOMOTIVE TECHNOLOGY													
	AUTO 400 SELECTED TOPICS IN AUTOMOTIVE TECHNOLOGY													
CSLO#	**COURSE NUMBER: COURSE NAME**	**Related PSLO**												
	Total Number of Courses (from last number assigned)		23	23	23	23	23	23	23	23	23	23	23	23
	Total Number of CSLOs (manually enter)													
	Number of CSLOs Assessed Per Semester (per formula)		0	0	0	0	0	0	0	0	0	0	0	0
	Percentage of CSLOs Assessed (per formula)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Number of Courses Assessed Per Semester (manually enter)													
	Percentage of Courses Assessed (per formula)		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%