

PROCEDURAL SEQUENCE FOR ACADEMIC SENATE APPROVAL OF PROPOSALS

1. Submit all proposals to the Office of Academic Affairs.
2. The Senate President will log items and forward them to the appropriate Senate subcommittees.
3. The Senate subcommittee will send the proposal to the Senate.
4. Senate proposals will be considered by the Full Faculty.
5. If approved, the proposal will then be forwarded to the Provost/Senior Vice Chancellor.

Proposals that require action to approve/disapprove/table or remand will be sent back to the Senate according to the monthly meeting schedule.

TITLE: Automotive BS, AAS, Minor, and Certificate program revisions.

SUBCOMMITTEE: Curriculum PROPOSAL #: 00-25

PROPOSAL:

The automotive program is revising its BS Degree, AAS Degree, Minor, and Certificate. Because of the revision, the automotive program will drop ATDI 117 (3cr), ATDI 118 (3cr), ATDI 119 (3cr) & ATDI 120 (3cr), and replace them with AUTO 117 (4cr), AUTO 119 (4cr), & AUTO 220 (4cr). AUTO 357 (4cr) will be dropped and replaced with AUTO 457 (4cr). AUTO 388 (3cr) will be dropped and replaced with ATDI 400 (2cr). ATDI 384 (3cr)/ATDI 385 (3cr) will be replaced with ATDI 384 (4cr). ATDI 385 (3cr) will be dropped. AUTO 383 (3cr) is a new class. AUTO 408 is being changed from a 3 credit class to a 2 credit class. AUTO 355 (3cr) is a new class and will be taught concurrently with AUTO 255 by the same instructor.

Action Signatures:

Walter E. Boyum 2-2-01
Submitter Date

D. Quatrachy 2-2-01
College Chair/Dean Date

T. Welch
Committee Chair

Approve Disapprove Date 02/06/01
→ Except minor was tabled.

L. Munson
Committee Chair Academic Senate

Approve Disapprove Date 2-13-01

James E. Munson
Faculty Senate President

Approve Disapprove Date 2-27-01

Roger Barber
Provost/Senior Vice Chancellor for Academic Affairs

Approve Disapprove Date 3/7/01

Revised: 11/15/99
[Signature]
Chancellor

approve Disapprove
Date 3/8/01

Program Revision Form

NEW _____ DROPPED _____ MAJOR REVISION **X** _____ INFORMATION ONLY _____

Department COTS Program Area Automotive BS Date 1/29/01

Please provide in the space below a "before and after" picture of the program with the changes in the program noted. Attached appropriate Course Revision Forms.

Current Program		Proposed Program		
ATDI 117	Chassis I	3	AUTO 115 Introduction to Automotive Service	1
ATDI 118	Chassis I Lab	3	AUTO 117 Automotive Manual Power Trains	4
ATDI 119	Chassis II	3	AUTO 119 Automotive Braking Systems	4
ATDI 120	Chassis II Lab	3	AUTO 128 Engines	4
ATDI 134	Auto/Diesel Electrical/Electronic Systems I	4	AUTO 151 Diagnosis and Tune Up	3
ATDI 257	Automatics	4	AUTO 152 Diagnosis and Tune Up Lab	3
ATDI 264	Auto/Diesel Electrical/Electronics Systems II	4	AUTO 220 Automotive Steering and Suspension	4
ATDI 265	Heating and Air Conditioning	4	AUTO 251 Computerized Engine Control System	3
ATDI 384	Auto/Diesel Electronics Application	3	AUTO 252 Computerized Engine Control Systems Lab	3
ATDI 385	Auto/Diesel Microprocessor Application Lab	3	AUTO 355 Automotive Service Operations	3
ATDI 387	Service Operations	3	AUTO 408 Current Trends in Mobility Technology	2
AUTO 128	Engines	4	AUTO 450 Dyn. Testing/Computer Sys. Data Analysis	4
AUTO 151	Diagnosis and Tune Up	3	AUTO 457 Advanced Power Trains	4
AUTO 152	Diagnosis and Tune Up Lab	3	AUTO 488 Automotive Practicum *	3
AUTO 251	Computerized Engine Control System	3	ATDI 134 Auto/Diesel Electrical/Electronic Systems I	4
AUTO 252	Computerized Engine Control Systems Lab	3	ATDI 257 Automatics	4
AUTO 255	Applied Service Technology	4	ATDI 264 Auto/Diesel Electrical/Electronics Systems II	4
AUTO 357	Advanced Automatics	4	ATDI 265 Heating and Air Conditioning	4
AUTO 388	Applied Service Operations	3	ATDI 383 Alternative Automotive Power Systems	3
Or			ATDI 384 Auto/Diesel Electronics Application	4
AUTO 479	Cooperative Education	3	ATDI 400 Shop Procedures *	2
AUTO 408	Current Trends in Mobility Technology	3	Selective List (14 Credits Required)*	
AUTO 450	Dyno Testing/Computer Sys. Data Analysis	4	At least one course must be upper division	
AUTO 488	Automotive Practicum	3	AUTO 479 Cooperative Education	3
BODY 140	Panel Adjustments and Glass	2	BODY 140 Panel Adjustments and Glass	2
METL 125	Automotive Machine & Tool Technology	3	BODY 143 Refinishing	3
METL 140	Intro to Welding and Cutting	3	BODY 144 Refinishing Lab	3
TECH 100	Industrial Safety/Waste Management	2	METL 140 Intro. to Welding and Cutting	3
Total	84 Credits		ACCT 261 Principles of Accounting I	3
			BUS 250 Business Statistics	3
			BUS 300 Management in Organizations	3
			TSS 222 Customer Service	3
			CIS 111 Integrated Business Applications	3
			ENGL 366 Technical Writing and Editing	3
			Total	84 Credits

* Only required if no minor.

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

Program Revision Form

NEW _____ DROPPED _____ MAJOR REVISION X _____ INFORMATION ONLY _____

Department COTS Program Area Automotive AAS Date 1/29/01

Please provide in the space below a “before and after” picture of the program with the changes in the program noted. Attached appropriate Course Revision Forms.

Current Program

ATDI 117	Chassis I	3
ATDI 118	Chassis I Lab	3
ATDI 119	Chassis II	3
ATDI 120	Chassis II Lab	3
ATDI 134	Auto/Diesel Electrical/Electronic Systems I	4
ATDI 257	Automatics	4
ATDI 264	Auto/Diesel Electrical/Electronics Systems II	4
ATDI 265	Heating and Air Conditioning	4
AUTO 128	Engines	4
AUTO 151	Diagnosis and Tune Up	3
AUTO 152	Diagnosis and Tune Up Lab	3
AUTO 251	Computerized Engine Control System	3
AUTO 252	Computerized Engine Control Systems Lab	3
AUTO 255	Applied Service Technology	4
TECH 100	Industrial Safety/Waster Management	2
Total		50

Proposed Program

AUTO 115	Introduction to Automotive Service	1
AUTO 117	Automotive Manual Power Trains	4
AUTO 119	Automotive Braking Systems	4
AUTO 128	Engines	4
AUTO 151	Diagnosis and Tune Up	3
AUTO 152	Diagnosis and Tune Up Lab	3
AUTO 220	Automotive Steering and Suspension	4
AUTO 251	Computerized Engine Control System	3
AUTO 252	Computerized Engine Control System Lab	3
AUTO 255	Applied Service Technology	3
ATDI 134	Auto/Diesel Electrical/Electronic Systems I	4
ATDI 257	Automatics	4
ATDI 264	Auto/Diesel Electrical/Electronics Systems II	4
ATDI 265	Heating and Air Conditioning	4
BODY 140	Panel Adjustments and Glass	2
Total		50

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

Program Revision Form

NEW _____ DROPPED _____ MAJOR REVISION X INFORMATION ONLY _____

Department COTS Program Area Automotive Minor Date 1/29/01

Please provide in the space below a "before and after" picture of the program with the changes in the program noted. Attached appropriate Course Revision Forms.

Current Program

Proposed Program

List A: Choose 14 Credits

ATDI 117	Chassis I	3
ATDI 118	Chassis I Lab	3
ATDI 119	Chassis II	3
ATDI 120	Chassis II Lab	3
ATDI 134	Auto/Diesel Electrical/Electronic Systems I	4
AUTO 128	Engines	4
AUTO 151	Diagnosis and Tune Up	3
AUTO 152	Diagnosis and Tune Up Lab	3
AUTO 251	Computerized Engine Control System	3
AUTO 252	Computerized Engine Control Systems Lab	3
METL 125	Automotive Machining and Tool Tech	3

List A: Choose 14 Credits

AUTO 115	Introduction to Automotive Service	1
AUTO 117	Automotive Manual Power Trains	4
AUTO 119	Automotive Braking Systems	4
AUTO 128	Engines	4
AUTO 151	Diagnosis and Tune Up	3
AUTO 152	Diagnosis and Tune Up Lab	3
AUTO 220	Automotive Steering and Suspension	4
AUTO 251	Computerized Engine Control System	3
AUTO 252	Computerized Engine Control System Lab	3
ATDI 134	Auto/Diesel Electrical/Electronic Systems I	4

List B: Choose 14 credits (10 credits @ 300-400 level)

ATDI 257	Automatics	4
ATDI 264	Auto/Diesel Electrical/Electronics Systems II	4
ATDI 265	Heating and Air Conditioning	4
ATDI 384	Auto/Diesel Electronics Application	3
ATDI 385	Auto/Diesel Microprocessor Application Lab	3
ATDI 387	Service Operations	3
AUTO 357	Advanced Automatics	4
AUTO 388	Applied Service Operations	3
AUTO 408	Current Trends in Mobility Tech	3
TECH 100	Industrial Safety/Waste Management	2

List B: Choose 12 credits (9 credits @ 300-400 level)

ATDI 257	Automatics	4
ATDI 264	Auto/Diesel Electrical/Electronics Systems II	4
ATDI 265	Heating and Air Conditioning	4
ATDI 383	Alternative Automotive Power Systems	3
ATDI 384	Auto/Diesel Electronics Application	4
ATDI 400	Shop Procedures	2
ATDI 457	Advanced Power Trains	4

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

Revised: 02/09/00

Auto Minor -
TABLED
FOR FURTHER
REVISION

Will be
resubmitted
separately!

Curriculum
Committee

2/6/01

Program Revision Form

NEW _____ DROPPED _____ MAJOR REVISION **X** _____ INFORMATION ONLY _____


Department COTS Program Area Automotive Certificate Date 1/29/01

Please provide in the space below a "before and after" picture of the program with the changes in the program noted. Attached appropriate Course Revision Forms.

Current Program			Proposed Program		
ATDI 117	Chassis I	3	AUTO 115	Introduction to Automotive Service	1
ATDI 118	Chassis I Lab	3	AUTO 117	Automotive Manual Power Trains	4
ATDI 119	Chassis II	3	AUTO 119	Automotive Braking Systems	4
ATDI 120	Chassis II Lab	3	AUTO 128	Engines	4
ATDI 134	Auto/Diesel Electrical/Electronic Systems I	4	AUTO 151	Diagnosis and Tune Up	3
AUTO 128	Engines	4	AUTO 152	Diagnosis and Tune Up Lab	3
AUTO 151	Diagnosis and Tune Up	3	ATDI 134	Auto/Diesel Electrical/Electronic System I	4
AUTO 152	Diagnosis and Tune Up Lab	3	BODY 140	Panel Adjustments and Glass	2
Total			Selective List (One Class Required)		
	26 Credits		ENGL 111	Written Communication I	3
			SPCH 141	Fundamentals of Speech	3
			SPCH 142	Interpersonal Communication	3
			Total		
				28 Credits	

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

Revised: 02/09/00


 Revised Certificate -
 Accepted by Curriculum
 Committee to replace
 certificate originally
 distributed - (next page)

2/6/01

Program Revision Form

NEW _____ DROPPED _____ MAJOR REVISION INFORMATION ONLY _____

Department COTS Program Area Automotive Certificate Date 1/29/01

Please provide in the space below a "before and after" picture of the program with the changes in the program noted. Attached appropriate Course Revision Forms.

Current Program			Proposed Program		
ATDI 117	Chassis I	3	AUTO 115	Introduction to Automotive Service	1
ATDI 118	Chassis I Lab	3	AUTO 117	Automotive Manual Power Trains	4
ATDI 119	Chassis II	3	AUTO 119	Automotive Braking Systems	4
ATDI 120	Chassis II Lab	3	AUTO 128	Engines	4
ATDI 134	Auto/Diesel Electrical/Electronic Systems I	4	AUTO 151	Diagnosis and Tune Up	3
AUTO 128	Engines	4	AUTO 152	Diagnosis and Tune Up Lab	3
AUTO 151	Diagnosis and Tune Up	3	ATDI 134	Auto/Diesel Electrical/Electronic System I	4
AUTO 152	Diagnosis and Tune Up Lab	3	BODY 140	Panel Adjustments and Glass	2
Total		26 Credits	Total		25 Credits

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

Revised: 02/09/00

This certificate
has been replaced
by previous page -
Curriculum
Committee approved
of revision + accepted
it to be added to
packet. 1/26/01

Course Revision Form

NEW DROPPED _____ MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area Automotive Date 1/19/01

Prefix AUTO No. 115 Title Introduction to Automotive Service Credits 1 credit

Required by AUTO BS, AUTO AAS, AUTO Minor, AUTO Certificate

Selective in _____

Elective in _____

General Education Area D

Lecture 1 Lecture/Lab _____ Contact hours lecture 1 Contact hours lab _____

Current Catalog Description (include all prerequisites):

N/A

Proposed Catalog Description (include all prerequisites):

An introductory course designed to assist the novice automotive technician^x in adjusting to the demands of an automotive service facility. This course will expose the student to the flat rate method of shop pay as well as focus on many customer concerns. The student will experience the most effective method when dealing with customer service while demonstrating correct dealer etiquette.

Course Outcome Objectives:

Once completing this course the student will have the ability to properly communicate automotive terminology to customers and present a professional image of their employer.

New instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Course Revision Form

NEW _____ DROPPED X MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix ATDI No. 117 Title Chassis I Credits 3

Required by AUTO BS, AUTO AAS, AUTO Minor, AUTO Certificate

Selective in _____

Elective in _____

General Education AREA D

Lecture 3 Lecture/Lab _____ Contact hours lecture 3 Contact hours lab _____

Current Catalog Description (include all prerequisites):

A study of the braking systems employed on automobiles and light trucks. Includes theory of operation, construction, maintenance, diagnosis, and repair of drum, disc, and antilock brake systems. Also includes a study of the basic theory and principles of gearing, service, repair, and reconditioning of automotive power train components. Components covered include clutches, transmissions, differentials, rear ends, axles, and transaxles. Must be taken concurrently with ATDI 118 Lab.

Proposed Catalog Description (include all prerequisites):

Course Outcome Objectives:

New instructional resources needed (including: library materials, special equipment, and facilities).

Please note: approval does not indicate support for new faculty or additional resources

Course Revision Form

NEW _____ DROPPED X MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix ATDI No. 118 Title Chassis I Lab Credits 3

Required by AUTO BS, AUTO AAS, AUTO Minor, AUTO Certificate

Selective in _____

Elective in _____

General Education AREA D

Lecture _____ Lecture/Lab 3 Contact hours lecture _____ Contact hours lab 6

Current Catalog Description (include all prerequisites):

Application of brake and power train service procedures. Must be taken concurrently with ATDI 117.

Proposed Catalog Description (include all prerequisites):

Course Outcome Objectives:

New instructional resources needed (including: library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Course Revision Form

NEW X DROPPED _____ MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area Automotive Date 1-9-01

Prefix Auto No. 117 Title Automotive Manual Power Trains Credits 4

Required by AUTO BS, AUTO AAS, AUTO Minor, AUTO Certificate

Selective in N/A

Elective in N/A

General Education Area D

Lecture 2 Lecture/Lab 2 Contact hours lecture 2 Contact hours lab 4

Current Catalog Description (include all prerequisites):

N/A

Proposed Catalog Description (include all prerequisites):

This course examines automotive manual power trains. ^{It} includes the construction, maintenance, diagnosis, and repair of manual transmissions and transaxles, transfer cases, rear axles, driveshafts, and clutches. Driveline angles and Noise, Vibration & Harshness (NVH) will be discussed. Lab application of service procedures is included.
No prerequisites

Course Outcome Objectives:

Students will demonstrate the ability to:

- 1) Identify types of power train components and parts.
- 2) Diagnose transmissions and trans-axles, transfer cases, rear axles, driveshafts and clutches.
- 3) Service, maintain and repair power train components.
- 4) Diagnose noise vibration and harshness problems.

Students will perform NATEF objectives related to the above areas.

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

NONE

Revised: 02/09/00

Course Revision Form

NEW _____ DROPPED X MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix ATDI No. 119 Title Chassis II Credits 3

Required by Automotive A.S. Degree, Automotive B.S. Degree

Selective in _____

Elective in _____

General Education AREA D

Lecture 3 Lecture/Lab _____ Contact hours lecture 3 Contact hours lab _____

Current Catalog Description (include all prerequisites):

Theory of operation, construction features, diagnosis, and repair of the vehicle components related to automotive front-end alignment. Alignment procedures, wheel balancing, automotive springs, shock absorbers, headlight aiming, McPherson strut, rack and pinion steering, power steering, front wheel drive, and visual recognition of vehicle frame damage. Also includes servicing drum, disc, and anti-lock brakes. Must be taken concurrently with ATDI 120 Lab.

Proposed Catalog Description (include all prerequisites):

Course Outcome Objectives:

**New instructional resources needed (including: library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources**

Course Revision Form

NEW _____ DROPPED X MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix ATDI No. 120 Title Chassis II Lab Credits 3

Required by Automotive A.S. Degree, Automotive B.S. Degree

Selective in _____

Elective in _____

General Education AREA D

Lecture _____ Lecture/Lab 3 Contact hours lecture _____ Contact hours lab 6

Current Catalog Description (include all prerequisites):

Application of suspension, alignment, and brake service procedures. Must be taken concurrently with ATDI 119.

Proposed Catalog Description (include all prerequisites):

Course Outcome Objectives:

New instructional resources needed (including: library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Course Revision Form

NEW X DROPPED _____ MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area Automotive Date 1-9-01

Prefix Auto No. 119 Title Automotive Braking Systems Credits 4

Required by AUTO BS, AUTO AAS, AUTO Minor, AUTO Certificate

Selective in N/A

Elective in N/A

General Education Area D

Lecture 2 Lecture/Lab 2 Contact hours lecture 2 Contact hours lab 4

Current Catalog Description (include all prerequisites):

N/A

Proposed Catalog Description (include all prerequisites):

This course examines automotive braking systems, ²includes ^{ING}hydraulic and friction theory. The construction, maintenance, diagnosis, and repair of disc, drum and antilock braking systems are studied. Use of ~~the~~ off-the-car and on-the-car ~~brake~~ lathes are included in lab. Lab application of service procedures is included.

No prerequisites

Course Outcome Objectives:

Students will demonstrate the ability to:

- 1) Identify types of braking systems and components.
- 2) Diagnose disc, drum, hydraulic and antilock braking systems.
- 3) Service and repair disc, drum, hydraulic and antilock braking systems.
- 4) Operate both on and off the car brake lathes.
- 5) Use asbestos dust containment equipment.

Students will perform NATEF objectives related to the above areas.

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

New Brake Lathe

Revised: 02/09/00

Course Revision Form

NEW X DROPPED _____ MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area Automotive Date 1-9-01

Prefix Auto No. 220 Title Automotive Steering and Suspension Credits 4

Required by AUTO BS, AUTO AAS, AUTO Minor

Selective in N/A

Elective in N/A

General Education Area D

Lecture 2 Lecture/Lab 2 Contact hours lecture 2 Contact hours lab 4

Current Catalog Description (include all prerequisites):

N/A

Proposed Catalog Description (include all prerequisites):

This course examines automotive suspension and steering systems. The theory of operation, construction, maintenance, diagnosis, and repair of steering and suspension systems is examined. Alignment procedures, wheel balancing, steering, suspension, headlight aiming, and structural damage diagnosis will be discussed. Lab application of service procedures is included.

No prerequisites

Course Outcome Objectives:

Students will demonstrate the ability to:

- 1) Identify types of steering and suspension components and parts.
- 2) Diagnose steering, suspension and wheel problems.
- 3) Service, maintain and repair steering and suspension components.
- 4) Diagnose structural damage to the suspension with four wheel alignment equipment.

Students will perform NATEF objectives related to the above areas.

New instructional resources needed (including library materials, special equipment, and facilities).

Please note: approval does not indicate support for new faculty or additional resources.

New alignment racks

Revised: 02/09/00

Course Revision Form

NEW _____ DROPPED _____ MAJOR REVISION X INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix AUTO No. 255 Title APPLIED SERVICE TECHNOLOGY Credits 3

Required by AUTOMOTIVE AAS DEGREE

Selective in _____

Elective in _____

General Education AREA D

Lecture 0 Lecture/Lab 3 Contact hours lecture 0 Contact hours lab 6

Current Catalog Description (include all prerequisites):

In depth practical analysis and repair of components related to engine, chassis, and power trains systems. This course simulates service department operations as found in industry.

Proposed Catalog Description (include all prerequisites):

A practical course dealing with the removal and installation of engines and automatic transmissions on both front and rear wheel drive ~~donated school~~ vehicles. Some live work may be performed regarding tune-up, brakes, electrical, power trains and chassis systems. Prerequisite: AUTO 117, AUTO 119, AUTO 128, ATDI 134, AUTO 151, AUTO 152.

Course Outcome Objectives:

Students will perform NATEF objectives related to the above areas.

New instructional resources needed (including: library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Course Revision Form

NEW _____ DROPPED X MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix AUTO No. 357 Title Advanced Automatics Credits 4

Required by Automotive B.S. Degree

Selective in _____

Elective in _____

General Education AREA D

Lecture _____ Lecture/Lab 3 Contact hours lecture _____ Contact hours lab 6

Current Catalog Description (include all prerequisites):

Theory and application of automatics. Covers front wheel drive, converter clutches, computer controlled transmissions, CVT (constant variable transmissions), automatic transmissions, transaxles. Prerequisite: ATDI 117 and ATDI 257.

Proposed Catalog Description (include all prerequisites):

Course Outcome Objectives:

**New instructional resources needed (including: library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources**

Course Revision Form

NEW X DROPPED _____ MAJOR REVISION _____ INFORMATION ONLY _____

Department Automotive Program Area College of Technical Sciences Date 12/15/00

Prefix ATDI No. 383 Title Alternative Automotive Power Systems Credits 3

Required by Auto BS

Selective in N/A

Elective in N/A

General Education Area D

Lecture 2 Lecture/Lab 1 Contact hours lecture 2 Contact hours lab 2

Current Catalog Description (include all prerequisites):

N/A

Proposed Catalog Description (include all prerequisites):

This course examines a variety of alternative power sources used in the automotive transportation industry. Topics covered ~~in the class~~ are compression ignition engine systems, propane & CNG systems, Hybrid electric systems, and electric propulsion systems.

Prerequisites: AUTO 128 or DIES 104/114, ATDI 134 and ATDI 264.

Course Outcome Objectives:

Students will become proficient in the operation, diagnosis and repair of compression ignition engine systems, propane & CNG systems, Hybrid electric systems, and electric propulsion systems.

New instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

None

Revised: 02/09/00

Course Revision Form

NEW _____ DROPPED _____ MAJOR REVISION INFORMATION ONLY _____

Department COTS Program Area Automotive Date 1/29/01

Prefix ATDI No. 384 Title Auto/Diesel Electrical/Electronic Systems III Credits 4

Required by Auto BS, Dies BS

Selective in _____

Elective in _____

General Education Area D

Lecture 2 Lecture/Lab 2 Contact hours lecture 2 Contact hours lab 4

Current Catalog Description (include all prerequisites):

An in-depth study of current microprocessor-based vehicle control systems, diagnostic systems, and development/testing systems. Topics include multiplexed communications, bi-directional scanners, data structures and PC-based service bay systems, and test cells. Must be taken concurrently with ATDI 385. Prerequisite: ATDI 264

Proposed Catalog Description (include all prerequisites):

This course provides an in-depth study of microprocessor-based vehicle control systems, diagnostic systems, and development/testing systems. Students will experience oral and written reporting on current applications. Topics include multiplexed communications, bi-directional scanners, data structures and PC-based service bay systems, and test cells.
Prerequisite: ATDI 134, ATDI 264

Course Outcome Objectives:

Once completing this course the student will have demonstrated that they have an understanding of current electronic systems, and have the ability to properly use and understand current electronic test equipment.

New instructional resources needed (including library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

Revised: 02/09/00

Course Revision Form

NEW _____ DROPPED X MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix ATDI No. 385 Title Auto/Diesel Microprocessor Applications Lab Credits 3

Required by Automotive B.S. Degree, Diesel B.S. Degree

Selective in _____

Elective in _____

General Education AREA D

Lecture _____ Lecture/Lab 3 Contact hours lecture _____ Contact hours lab 6

Current Catalog Description (include all prerequisites):

A lab class designed to combine principles and systems studied in ATDI 384 with skills and procedures prescribed by industry. Students will examine diagnostic routines of such microprocessor based systems as ABS, inflatable restraints, digital instrumentation, active suspension, powertrain control, SBDS, and C.A.M.S. Must be taken concurrently with ATDI 384. Prerequisite: ATDI 264

Proposed Catalog Description (include all prerequisites):

Course Outcome Objectives:

New instructional resources needed (including: library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Course Revision Form

NEW _____ DROPPED MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area AUTOMOTIVE Date: 1/28/2001

Prefix AUTO No. 388 Title APPLIED SERVICE OPERATIONS Credits 3

Required by AUTOMOTIVE B.S.

Selective in _____

Elective in _____

General Education AREA D

Lecture 0 Lecture/Lab 3 Contact hours lecture 0 Contact hours lab 9

Current Catalog Description (include all prerequisites):

To gain experience in shop management by figuring efficiency, productivity, contacting customers, objective scheduling, estimating, pay scales, presenting a training session, and quality control. Must be taken concurrently with ATDI 387.

Proposed Catalog Description (include all prerequisites):

Course Outcome Objectives:

New instructional resources needed (including: library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Course Revision Form

NEW _____ DROPPED _____ MAJOR REVISION **X** _____ INFORMATION ONLY _____

Department Automotive Program Area College of Technical Sciences Date 12/15/00

Prefix Auto No. 408 Title Current Trends in Mobility Technology Credits 2

Required by Auto BS

Selective in N/A

Elective in N/A

General Education Area D

Lecture 2 Lecture/Lab _____ Contact hours lecture 2 Contact hours lab _____

Current Catalog Description (include all prerequisites):

This course presents an examination of current model year design and trends in the mobility industries. Extensive undergraduate research and the latest techniques for presenting material will be employed.

Proposed Catalog Description (include all prerequisites):

This course presents an examination of current model year design and trends in the mobility industries. Extensive undergraduate research and the latest techniques for presenting material will be employed.

Course Outcome Objectives:

New instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

None

Revised: 02/09/00

Course Revision Form

NEW X DROPPED _____ MAJOR REVISION _____ INFORMATION ONLY _____

Department COTS Program Area Automotive Date 12/15/00

Prefix Auto No. 457 Title Advanced Power Trains Credits 4

Required by Auto BS

Selective in N/A

Elective in N/A

General Education Area D

Lecture 2 Lecture/Lab 2 Contact hours lecture 2 Contact hours lab 4

Current Catalog Description (include all prerequisites):

Theory and application of automatics. Covers front wheel drive, converter clutches, computer controlled transmissions, CVT (constant variable transmissions), automatic transmissions, transaxles.

Prerequisite: ATDI 117 and ATDI 257

Proposed Catalog Description (include all prerequisites):

This course examines advanced component operation and diagnosis in automotive powertrains. Topics covered in the class are automatic transmissions, automatic transaxles, all wheel drive systems, CVT (constant variable transmissions), powertrain electronic control systems and NVH (noise, vibration & harshness) diagnosis.

Prerequisite: AUTO 117 and ATDI 257

Course Outcome Objectives:

Students will become proficient in the operation, diagnosis and repair of automatic transmissions, automatic transaxles, all wheel drive systems, CVT transmissions, powertrain electronic control systems and NVH diagnosis.

New instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

None

Revised: 02/09/00