

MASTER SYLLABUS

Course Discipline Code & No: ASV 250 Title: Vehicle Performance Effective Term Fall 2009

Division Code: VTC Department Code: AUTD Org #: _____

Don't publish: College Catalog Time Schedule Web Page

Reason for Submission. Check all that apply.

- New course approval
- Three-year syllabus review/Assessment report
- Course change
- Reactivation of inactive course
- Inactivation (Submit this page only.)

Change information: Note all changes that are being made. Form applies only to changes noted.

- Consultation with all departments affected by this course is required.
- Course discipline code & number (was _____)*
*Must submit inactivation form for previous course.
- Course title (was _____)
- Course description
- Course objectives (minor changes)
- Credit hours (credits were: _____)
- Total Contact Hours (total contact hours were: _____)
- Distribution of contact hours (contact hours were:
lecture: _____ lab _____ clinical _____ other _____)
- Pre-requisite, co-requisite, or enrollment restrictions
- Change in Grading Method
- Outcomes/Assessment
- Objectives/Evaluation
- Other _____

Rationale for course or course change. Attach course assessment report for existing courses that are being changed.

To provide students with the knowledge and skills necessary to diagnose, measure and improve vehicle performance on late model automobiles.

Approvals Department and divisional signatures indicate that all departments affected by the course have been consulted.

Department Review by Chairperson New resources needed All relevant departments consulted

Print: Allen Day Signature: [Signature] Date: 10/29/2009
Faculty/Preparer

Print: Russ Ferguson Signature: [Signature] Date: 10/29/2009
Department Chair

Division Review by Dean

Request for conditional approval

Recommendation Yes No [Signature] Date: 10/29/09
Dean's/Administrator's Signature

Curriculum Committee Review

Recommendation [Signature] Date: 2/18/10
 Tabled Yes No
Curriculum Committee Chair's Signature

Vice President for Instruction Approval

[Signature] Date: 2-19-10
Vice President's Signature

Approval Yes No Conditional

Do not write in shaded area.

Log File 11/10/09 Ecopy Banner _____ C&A Database _____ C&A Log File _____ Basic skills Contact fee

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to sjohn@wccnet.edu for posting on the website.

MASTER SYLLABUS

*Complete ALL sections which apply to the course, even if changes are not being made.

Course: ASV 250 263	Course title: Vehicle Performance
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Credit hours: <u>2</u> If variable credit, give range: _____ to _____ credits	Contact hours per semester: <table style="width:100%"> <tr> <td></td> <td style="text-align:center"><u>Student</u></td> <td style="text-align:center"><u>Instructor</u></td> </tr> <tr> <td>Lecture:</td> <td style="text-align:center"><u>30</u></td> <td style="text-align:center"><u>30</u></td> </tr> <tr> <td>Lab:</td> <td style="text-align:center"><u>22.5</u></td> <td style="text-align:center"><u>22.5</u></td> </tr> <tr> <td>Clinical:</td> <td style="text-align:center">_____</td> <td style="text-align:center">_____</td> </tr> <tr> <td>Practicum:</td> <td style="text-align:center">_____</td> <td style="text-align:center">_____</td> </tr> <tr> <td>Other:</td> <td style="text-align:center">_____</td> <td style="text-align:center">_____</td> </tr> <tr> <td>Totals:</td> <td style="text-align:center"><u>52.5</u></td> <td style="text-align:center"><u>52.5</u></td> </tr> </table>		<u>Student</u>	<u>Instructor</u>	Lecture:	<u>30</u>	<u>30</u>	Lab:	<u>22.5</u>	<u>22.5</u>	Clinical:	_____	_____	Practicum:	_____	_____	Other:	_____	_____	Totals:	<u>52.5</u>	<u>52.5</u>	Are lectures, labs, or clinicals offered as separate sections? <input type="checkbox"/> Yes - lectures, labs, or clinicals are offered in separate sections <input checked="" type="checkbox"/> No - lectures, labs, or clinicals are offered in the same section	Grading options: <input type="checkbox"/> P/NP (limited to clinical & practica) <input type="checkbox"/> S/U (for courses numbered below 100) <input checked="" type="checkbox"/> Letter grades
	<u>Student</u>	<u>Instructor</u>																						
Lecture:	<u>30</u>	<u>30</u>																						
Lab:	<u>22.5</u>	<u>22.5</u>																						
Clinical:	_____	_____																						
Practicum:	_____	_____																						
Other:	_____	_____																						
Totals:	<u>52.5</u>	<u>52.5</u>																						

Prerequisites. Select one:

- College-level Reading & Writing
 Reduced Reading/Writing Scores (Add information at Level I prerequisite)
 No Basic Skills Prerequisite (College-level Reading and Writing is not required.)

In addition to Basic Skills in Reading/Writing:

Level I (enforced in Banner)

Course	Grade	Test	Min. Score	Concurrent Enrollment <small>(Can be taken together)</small>	Corequisites <small>Must be enrolled in this class also during the same semester)</small>
ASV 255 _____	<u>C</u>	_____	_____	<input type="checkbox"/>	_____
<input type="checkbox"/> and <input type="checkbox"/> or _____	_____	_____	_____	<input type="checkbox"/>	_____
<input type="checkbox"/> and <input type="checkbox"/> or _____	_____	_____	_____	<input type="checkbox"/>	_____
<input type="checkbox"/> and <input type="checkbox"/> or _____	_____	_____	_____	<input type="checkbox"/>	_____

Level II (enforced by instructor on first day of class)

Course	Grade	Test	Min. Score
_____	_____	_____	_____
<input type="checkbox"/> and <input type="checkbox"/> or _____	_____	_____	_____
<input type="checkbox"/> and <input type="checkbox"/> or _____	_____	_____	_____

Enrollment restrictions (In addition to prerequisites, if applicable.)

- and or Consent required
 and or Admission to program required
 and or Other (please specify): Completion of Automotive Mechanic Certificate or comparable field experience

Please send syllabus for transfer evaluation to:

Conditionally approved courses are not sent for evaluation.
 Insert course number and title you wish the course to transfer as.

- | | |
|--|---|
| <input type="checkbox"/> E.M.U. as _____ | <input type="checkbox"/> _____ as _____ |
| <input type="checkbox"/> U of M as _____ | <input type="checkbox"/> _____ as _____ |
| <input type="checkbox"/> _____ as _____ | <input type="checkbox"/> _____ as _____ |

MASTER SYLLABUS

<p>Course ASV 263</p>	<p>Course title Vehicle Performance</p>	
<p>Course description State the purpose and content of the course. Please limit to 500 characters.</p>	<p>This course provides students with the knowledge and skills necessary to diagnose, measure and improve vehicle performance on late model automobiles. The course will cover the areas of basic power train performance, chassis design/dynamics, fuel/ignition systems and basic aerodynamics including safety improvements to meet performance gains.</p>	
<p>Course outcomes List skills and knowledge students will have after taking the course.</p> <p>Assessment method Indicate how student achievement in each outcome will be assessed to determine student achievement for purposes of course improvement.</p>	<p>Outcomes (applicable in all sections)</p> <ol style="list-style-type: none"> 1. Diagnose factors affecting power train performance. 2. Identify basic chassis design factors on project vehicles. 3. Apply basic vehicle dynamics and factors that affect vehicle performance. 4. Diagnose fuel and ignition system factors affecting performance. 5. Perform aerodynamic design study and improvements on project vehicles. 	<p>Assessment Methods for determining course effectiveness</p> <ol style="list-style-type: none"> 1. Skill assessment checklist. 2. Skill assessment checklist. 3. Skill assessment checklist. 4. Skill assessment checklist. 5. Skill assessment checklist.
<p>Course Objectives Indicate the objectives that support the course outcomes given above.</p> <p>Course Evaluations Indicate how instructors will determine the degree to which each objective is met for each student.</p>	<p>Objectives (applicable in all sections)</p> <p>Outcome 1</p> <ul style="list-style-type: none"> • Diagnose and/or modify engine for performance and fuel economy improvements. • Diagnose and/or modify transmission for performance improvements. • Diagnose and/or modify final drive for performance and fuel economy. <p>Outcome 2</p> <ul style="list-style-type: none"> • Diagnose and/or modify tires and wheels for improved performance and/or improved fuel economy. • Perform chassis weight distribution study on project vehicles. • Diagnose steering and suspension angles to minimize bump and roll steer. <p>Outcome 3</p> <ul style="list-style-type: none"> • Develop a model for optimizing vehicle dynamics, weight transfer and tire slip angles. <p>Outcome 4</p> <ul style="list-style-type: none"> • Diagnose and modify fuel injection systems for fuel economy and performance. • Diagnose and modify standard and computerized ignition systems for fuel economy and performance. <p>Outcome 5</p> <ul style="list-style-type: none"> • Diagnose and modify project vehicles to improve aerodynamics for fuel economy and/or performance. 	<p>Evaluation Methods for determining level of student performance of objectives</p> <ul style="list-style-type: none"> • Test and skill assessment checklist for all objectives listed. • Test and skill assessment checklist for all objectives listed. • Test and skill assessment checklist for all objectives listed. • Test and skill assessment checklist for all objectives listed.
<p>List all new resources needed for course, including library materials. Portable vehicle scales (4) Engine and chassis dynamometers</p>		

MASTER SYLLABUS

Student Materials:

<p>List examples of types Texts Supplemental reading Supplies Uniforms Equipment Tools Software</p>	<p>Proper dress appropriate with the lab situation including eye protection</p>	<p>Estimated costs \$</p>
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Equipment/Facilities: Check all that apply. (All classrooms have overhead projectors and permanent screens.)

<p>Check level <u>only</u> if the specified equipment is needed for <u>all</u> sections of a course.</p> <p><input type="checkbox"/> Level I classroom Permanent screen & overhead projector</p> <p><input type="checkbox"/> Level II classroom Level I equipment plus TV/VCR</p> <p><input checked="" type="checkbox"/> Level III classroom Level II equipment plus data projector, computer, faculty workstation</p>	<p><input checked="" type="checkbox"/> Off-Campus Sites <input type="checkbox"/> Testing Center <input checked="" type="checkbox"/> Computer workstations/lab <input type="checkbox"/> ITV <input type="checkbox"/> TV/VCR <input type="checkbox"/> Data projector/computer <input checked="" type="checkbox"/> Other <u>Testing Locations</u></p>
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Assessment plan:

Learning outcomes to be assessed (list from Page 3)	Assessment tool	When assessment will take place (semester & year)	Course section(s)/other population	Number students to be assessed
Diagnose factors affecting power train performance.	Skill assessment checklist.	Winter 2011 and every 3 years after that.	All	All
Identify basic chassis design factors on project vehicles.	Skill assessment checklist.	Winter 2011 and every 3 years after that.	All	All
Apply basic vehicle dynamics and factors that affect vehicle performance.	Skill assessment checklist.	Winter 2011 and every 3 years after that.	All	All
Diagnose fuel and ignition system factors affecting performance.	Skill assessment checklist.	Winter 2011 and every 3 years after that.	All	All
Perform aerodynamic design study and improvements on project vehicles.	Skill assessment checklist.	Winter 2011 and every 3 years after that.	All	All

Scoring and analysis of assessment:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric/scoring guide.

Lab activities will be scored using attached rubric.

2. Indicate the standard of success to be used for this assessment.

70% of the students will score an overall average of 70% or higher

3. Indicate who will score and analyze the data (data must be blind-scored).

Faculty will blind-score data when possible

4. Explain the process for using assessment data to improve the course.

Department faculty will review assessment data and identify areas of weakness. Course construction changes may be made if appropriate.