

Executive Summary

Automotive Program Alignment

March 23, 2011

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The Kansas Board of Regents approved an aligned curriculum for Automotive Technology on March 16, 2010. The aligned curriculum is composed of three aligned courses, three certificate levels, and the Associates of Applied Science degree.

The three aligned courses are: **Brakes I, Electrical I and Engine Performance I**. The remainder of the automotive curriculum is to align to existing NATEF (National Automotive Technicians Education Foundation) standards. Barton is currently aligned to all NATEF standards.

Certificate Levels

The Board of Regents established three certificate levels (A, B and C).

- **Certificate-A:** 15-credit hour, non-financial aid approved, certificate; designed to meet the needs of local industry and high school participants.
- **Certificate-B:** for one-year automotive programs. Curriculum must complete the following four NATEF categories: Electrical, Brakes, Engine Performance and Steering/Suspension.
- **Certificate-C:** for two-year automotive programs. Curriculum must complete the four areas specified in Cert-B, and at least two additional NATEF categories.

According to KBOR guidelines, an institution may choose to offer Certificate "A" in conjunction with either Certificate "B" or "C", but not all three levels.

AAS Degree

The Automotive Associates of Applied Science degree must include 15 general education credits and complete between 6-8 NATEF categories. KBOR established a maximum of 67 credit hours for the AAS. Degree credit hours exceeding 67 will not receive State funding.

Barton Automotive Technology

In accordance with local needs and recommendations of the Barton Automotive Advisory Board, the curriculum was reorganized as follows:

- Current automotive courses were redefined and divided into smaller credit offerings that correspond to Kansas Aligned Curriculum (Brakes I, Electrical I, Engine Performance I)
- Seven new classes were added to the curriculum and all syllabi and outcomes were rewritten.

- Ten automotive courses are now designated as hybrid/blended (25% instruction online).
- The program will remain a two-year NATEF certified program, offering training in all eight categories (Brakes, Suspension, Electrical, Engine Performance, Engines, Air Conditioning, Manual Transmission, Automatic Transmissions).
- Barton will offer three **Level A Certificates** to recognize a student's level of achievement, and to provide a program exit point (primarily for H.S. students).
- Barton will offer **Certificate level C**, for a total of 58 credit hours. Auto Body I, II, and III will remain elective hours.
- AAS degree students are required to take 52 credits of automotive coursework in addition to 15 general education credits, for a total of 67 credit hours (this is a slight reduction in credits from 70 hours previously).

Conclusion

The program alignment process has improved Barton's automotive program on several levels:

1. New courses which are now 3 credits instead of 5 credit hours will enhance marketability to area high schools.
2. The development of new courses and redefining of outcomes will enhance the program's responsive to local needs.
3. Development of hybrid/online curriculum will better prepare students for life-long learning.
4. Although AAS degree hours were cut from 70 to 67, certificate student hours are increased from 55 to 58. This should result in increased revenue, as most of our students are non-degree seeking.
5. Having the Certificate-A option will provide exit points and serve as encouragement for students to progress onto certificate Level C.

Certificate in Auto Technology

Required Courses

Course Number	Title	Credit Hrs.
1100	Introduction to Automotive Technology	3
1102	Brakes I	3
1104	Brakes II	3
1106	Steering and Suspension	5
1108	Engine Repair I	3
1110	Engine Repair II	3
1112	Electrical I	3
1114	Electrical II	3
1116	Electrical III	4
1118	Automotive Air Conditioning	4
1120	Engine Performance I	3
1122	Engine Performance II	3
1124	Engine Performance III	4
1126	Manual Transmissions	3
1128	Automatic Transmissions	5
1130	Service Techniques I	3
1132	Service Techniques II	3
	Total Credits	58

Elective Courses

Course Number	Title	Credit Hrs.
1134	Service Techniques III	3
1140	Hybrid and Electric Powertrains	1-3
1060	Occupational Internship	1-6
1024	Auto Body Repair I	3
1026	Auto Body Repair II	3
1036	Auto Body Repair III	3

A.A.S. Degree (67 cr.)

Required Courses

Course Number	Title	Credit Hrs.
1100	Introduction to Automotive Technology	3
1102	Brakes I	3
1104	Brakes II	3
1106	Steering and Suspension	5
1108	Engine Repair I	3
1110	Engine Repair II	3
1112	Electrical I	3
1114	Electrical II	3
1116	Electrical III	4
1118	Automotive Air Conditioning	4
1120	Engine Performance I	3
1122	Engine Performance II	3
1124	Engine Performance III	4
1126	Manual Transmissions	3
1128	Automatic Transmissions	5
Total Credits		52

General Education Courses

Title	Credit Hrs.
Tech Math (or) Intermediate Algebra	3
Business English (or) English Comp I	3
Technical Communications (or) English Comp II	3
Humanities, Science, & Physical Education	6
Total Credits	15

Elective Courses

Course Number	Title	Credit Hrs.
1130	Service Techniques I	3
1132	Service Techniques II	3
1134	Service Techniques III	3
1140	Hybrid and Electric Powertrains	1-3
1060	Occupational Internship	1-6
1024	Auto Body Repair I	3
1026	Auto Body Repair II	3
1036	Auto Body Repair III	3