

**STATE BOARD OF COMMUNITY COLLEGES
Curriculum Standard Revision**

The State Board is asked to approve revisions to the following curriculum standard:

Wake Technical Community College
Heavy Equipment Operator (Diploma) (D35240)

STATE BOARD OF COMMUNITY COLLEGES
Curriculum Standard Revision
Wake Technical Community College
Heavy Equipment Operator (Diploma)(D35240)(Current Title)
Heavy Equipment Operation, Management and Service (A35xxx)(Proposed Title)

Request: The State Board of Community Colleges is asked to approve Wake Technical Community College's request to revise the Heavy Equipment Operator (Diploma)(D35240) curriculum standard with an effective term of Fall 2017.

Proposed Revisions:

- Revise the curriculum title to Heavy Equipment Operation, Management and Service.
- Revise the curriculum description.
- Expand the curriculum standard from a diploma to an associate's degree.
- Revise the curriculum core by adding options to current course requirements:

Currently required: *HEO 113 Grades and Drawings*

Proposed Option: *HEO 114 Erosion Control & Regulations*

Currently required: *ISC 115 Construction Safety and ISC 121 Environmental Health & Safety*

Proposed Options: *HET 150 MSHA for Equip Tech & Operator*

- Add the following prefixes to the "Other Major" area:
ACC, BUS, CEG, CIV, CMT, EGR, HET, HYD, ISC, PME, PMT, SRV, TRN, and WLD

Note: The program code would change due to the revision in title and degree level.

Rationale: Wake Technical Community College's Heavy Equipment Operator Industry Advisory Board requested that the college expand the diploma program to an associate degree with specialized career pathways. The additional coursework would help large excavating industry employers meet ongoing challenges with locating qualified employees due to an inherent skills-gap that the current program is unable to fully address. The managerial component would provide appropriate professional development opportunities required for incumbent workers to successfully transition upward within these organizations, thereby increasing employee retention. The proposed standard revision also meets the employment training needs expressed by small business owners/entrepreneurs by increasing the likelihood that they would achieve higher success rates through developed skillsets that support better organizational planning, competent equipment repair and servicing, and effective business management.

Vote Results:

Colleges receiving a vote request: 58

Colleges in favor of recommendations: 52

Colleges not in favor of recommendations: 0

Colleges not responding: 6

Contact(s):

Dr. Frank Scuiletti, Program Coordinator

PROPOSED CURRICULUM STANDARD

Effective Term
Spring 2013
Fall 2017
[2017*03]

Curriculum Program Title	Heavy Equipment Operator Operation, Management, and Service	Program Code	A35xxx D35240
Concentration	(not applicable)	CIP Code	49.0202

Curriculum Description

The Heavy Equipment **Operator Operation, Management, and Service** curriculum prepares students to efficiently operate heavy equipment such as dozers, loaders, scrapers, and graders, **and to perform basic preventive maintenance on various types of heavy equipment, and to manage equipment systems.**

Course work includes construction safety, proper equipment operation, grades, drawings, environmental concerns, heavy equipment design characteristics and features, equipment maintenance **and service**, and common equipment systems.

Graduates of this program may find employment with state and local government agencies and private contractors engaged in highway or other construction activities.

Curriculum Requirements*

[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (3)]

- I. General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.
- II. Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*
- III. Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	64-76	36-48	12-18

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1D SBCCC 400.97 (3)]

- A. Technical Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- B. Program Major(s).** The Program Major must include a minimum of 12 semester hours credit from the required subjects and/or courses. The Program Major is in addition to the technical core.
- C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Heavy Equipment Operator Operation, Management, and Service (Diploma) D35240 A35xxx

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE Required Courses: HEO 111 Heavy Equipment Operations I 12 SHC HEO 112 Heavy Equipment Operations II 12 SHC Safety: Choose One Course: ISC 121 Environmental Health & Safety 3 SHC ISC 115 Construction Safety 2 SHC HET 150 MSHA for Equip Tech & Operator 2 SHC Grades: Choose One Course: HEO 113 Grades and Drawings 3 SHC HEO 114 Erosion Control & Regulations 2 SHC		32 SHC 28-30 SHC	
B. CONCENTRATION <i>(Not applicable)</i>			
C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> ACC, BUS, CEG, CIV, CMT, EGR, HEO, HET, HYD, ISC, PME, PMT, SRV, TRN, WLD, and WBL <i>Up to two semester hour credits may be selected from ACA.</i> <i>Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS, and SPA.</i>			

CURRENT CURRICULUM STANDARD

<i>Effective Term</i> Spring 2013 [2013*01]

Curriculum Program Title	Heavy Equipment Operator (Diploma)	Program Code	D35240
Concentration	(not applicable)	CIP Code	49.0202

Curriculum Description

The Heavy Equipment Operator curriculum prepares students to efficiently operate heavy equipment such as dozers, loaders, scrapers, and graders and to perform basic preventive maintenance on most types of heavy equipment.

Course work includes construction safety, property equipment operation, grades, drawings, environmental concerns, heavy equipment design characteristics and features, equipment maintenance, and common equipment systems.

Graduates of this program may find employment with state and local government agencies and private contractors engaged in highway or other construction activities.

Curriculum Requirements*

[for associate degree, diploma, and certificate programs in accordance with ID SBCCC 400.97 (3)]

- I. General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.
- II. Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. (*See second page for additional information.*)
- III. Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	64-76	36-48	12-18

Approved by the State Board of Community Colleges on November 13, 1996; SBCC Revised 05/17/02; SBCC Revised 09/21/07; SBCC Template Revised 10/17/08; SBCC Revised 11/15/12; Editorial Revision 12/17/12; Editorial Revision 06/25/14; Prefix Addition 08/01/15; SBCC Revised ____.

Major Hours

[ref. 1D SBCCC 400.97 (3)]

- A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- B. Concentration** *(if applicable)*. A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Heavy Equipment Operator (Diploma) D35240

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE		32 SHC	
Required Courses: HEO 111 Heavy Equipment Operations I 12 SHC HEO 112 Heavy Equipment Operations II 12 SHC HEO 113 Grades and Drawings 3 SHC ISC 115 Construction Safety 2 SHC ISC 121 Environmental Health & Safety 3 SHC			
B. CONCENTRATION <i>(Not applicable)</i>			
C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> HEO, ISC, and WBL <i>Up to two semester hour credits may be selected from ACA.</i> <i>Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.</i>			