

## Program Information Report

## Business &amp; Entrepreneurship

## Construction Management (AACMG)

## Associate in Arts Degree

Program Effective Term: Fall 2024

High Demand Occupation High Skill Occupation High Wage Occupation

This program prepares students for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program transfers to Eastern Michigan University. In addition to the required courses within the degree program, students may transfer additional courses taken at WCC that will be applied to technical, business and math/science requirements for the bachelor's degree program at Eastern Michigan University.

**Articulation:**

Eastern Michigan University, several BS degrees

This program meets MTA. Students must have their transcripts certified for MTA completion by the WCC Student Records Office.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: <https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php> .

**Program Admission Requirements:**

Two years of high school algebra is recommended.

<b>First Semester</b>		<b>(16 credits)</b>
CMG 130	Construction Site Safety and OSHA Regulations	3
CMG 150	Introduction to Construction Management	3
ENG 111	Composition I	4
MTH 178	General Trigonometry	3
Elective	Arts/Human. Elective(s) 1	3

<b>Second Semester</b>		<b>(16 credits)</b>
BMG 240	Human Resources Management	3
CMG 180	Application of Construction Materials	3
ECO 211	Principles of Economics I	3
MTH 160	Basic Statistics*	4
Elective	Speech/Comp. Elective(s)	3

<b>Third Semester</b>		<b>(16 credits)</b>
ACC 111	Principles of Financial Accounting	3
BMG 207	Business Communication	3
CMG 170	Construction Graphics	3
GLG 114	Physical Geology	4
Elective	Arts/Human. Elective(s) 2	3

<b>Fourth Semester</b>		<b>(12 credits)</b>
BMG 111	Business Law I	3
CMG 200	Construction Systems	3
Elective	Nat. Sci. Elective(s) 2	3
Elective	Soc. Sci. Elective(s) 2	3

**Minimum Credits Required for the Program:** **60**

**Notes:**

\*MTH 160 should be completed at WCC to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will be required unless waived by ACT/SAT or math placement score.

## **Program Information Report**

*Students transferring to EMU should see the articulation agreement for additional courses that can be taken at WCC.*

## Program Information Report

## Skilled Trades

**Construction Management (AACMG)****Associate in Arts Degree**Program Effective Term: **Fall 2024****High Demand Occupation High Skill Occupation High Wage Occupation**

This program prepares students for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program transfers to Eastern Michigan University. In addition to the required courses within the degree program, students may transfer additional courses taken at WCC that will be applied to technical, business and math/science requirements for the bachelor's degree program at Eastern Michigan University.

**Articulation:**

Eastern Michigan University, several BS degrees

This program meets MTA. Students must have their transcripts certified for MTA completion by the WCC Student Records Office.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: <https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php> .

**Program Admission Requirements:**

Two years of high school algebra is recommended.

<b>First Semester</b>		<b>(16 credits)</b>
CMG 130	Construction Site Safety and OSHA Regulations	3
CMG 150	Introduction to Construction Management	3
ENG 111	Composition I	4
MTH 178	General Trigonometry	3
Elective	Arts/Human. Elective(s) 1	3

<b>Second Semester</b>		<b>(16 credits)</b>
BMG 240	Human Resources Management	3
CMG 180	Application of Construction Materials	3
ECO 211	Principles of Economics I	3
MTH 160	Basic Statistics*	4
Elective	Speech/Comp. Elective(s)	3

<b>Third Semester</b>		<b>(16 credits)</b>
ACC 111	Principles of Financial Accounting	3
BMG 207	Business Communication	3
CMG 170	Construction Graphics	3
GLG 114	Physical Geology	4
Elective	Arts/Human. Elective(s) 2	3

<b>Fourth Semester</b>		<b>(12 credits)</b>
BMG 111	Business Law I	3
CMG 200	Construction Systems	3
Elective	Nat. Sci. Elective(s) 2	3
Elective	Soc. Sci. Elective(s) 2	3

**Minimum Credits Required for the Program:** **60**

**Notes:**

\*MTH 160 should be completed at WCC to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will be required unless waived by ACT/SAT or math placement score.

## **Program Information Report**

*Students transferring to EMU should see the articulation agreement for additional courses that can be taken at WCC.*

## Program Information Report

## Transfer

**Construction Management (AACMG)****Associate in Arts Degree**

Program Effective Term: Fall 2024

**High Demand Occupation High Skill Occupation High Wage Occupation**

This program prepares students for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program transfers to Eastern Michigan University. In addition to the required courses within the degree program, students may transfer additional courses taken at WCC that will be applied to technical, business and math/science requirements for the bachelor's degree program at Eastern Michigan University.

**Articulation:**

Eastern Michigan University, several BS degrees

This program meets MTA. Students must have their transcripts certified for MTA completion by the WCC Student Records Office.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: <https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php>.

**Program Admission Requirements:**

Two years of high school algebra is recommended.

<b>First Semester</b>		<b>(16 credits)</b>
CMG 130	Construction Site Safety and OSHA Regulations	3
CMG 150	Introduction to Construction Management	3
ENG 111	Composition I	4
MTH 178	General Trigonometry	3
Elective	Arts/Human. Elective(s) 1	3

<b>Second Semester</b>		<b>(16 credits)</b>
BMG 240	Human Resources Management	3
CMG 180	Application of Construction Materials	3
ECO 211	Principles of Economics I	3
MTH 160	Basic Statistics*	4
Elective	Speech/Comp. Elective(s)	3

<b>Third Semester</b>		<b>(16 credits)</b>
ACC 111	Principles of Financial Accounting	3
BMG 207	Business Communication	3
CMG 170	Construction Graphics	3
GLG 114	Physical Geology	4
Elective	Arts/Human. Elective(s) 2	3

<b>Fourth Semester</b>		<b>(12 credits)</b>
BMG 111	Business Law I	3
CMG 200	Construction Systems	3
Elective	Nat. Sci. Elective(s) 2	3
Elective	Soc. Sci. Elective(s) 2	3

**Minimum Credits Required for the Program:** **60**

**Notes:**

\*MTH 160 should be completed at WCC to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will be required unless waived by ACT/SAT or math placement score.

## **Program Information Report**

*Students transferring to EMU should see the articulation agreement for additional courses that can be taken at WCC.*

## WASHTENAW COMMUNITY COLLEGE

## PROGRAM CHANGE FORM

<b>Program Code: AACMG</b>	<b>Current Program Name: Construction Management</b>	<b>Effective Term: Fall 2024</b>
<b>Division Code: ATP</b>	<b>Department: HVAD</b>	

**Directions:**

1. Attach the current program listing from the WCC catalog or website and indicate any changes to be made.
2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.
3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using CurricUNET, but should be submitted at the same time as the program change form.
4. If changes affect the program assessment plan or if program outcomes are updated, please submit a [Program Assessment Plan Change](#) form. These changes must be approved separately from the program change form and should be submitted at the same time. Current program assessment plans can be found on the [Curriculum and Assessment Program Information page](#).

**Requested Changes:**

- |  |   |
|--|---|
| <input type="checkbox"/> Remove course(s): _____             | <input type="checkbox"/> Program outcomes (may also result from removing or adding a course)* |
| <input type="checkbox"/> Add course(s): _____                | <input type="checkbox"/> Program assessment plan*   |
| <input type="checkbox"/> Program title (new title is _____)  | <input type="checkbox"/> Accreditation information  |
| <input type="checkbox"/> Description                         | <input checked="" type="checkbox"/> Other <u>Layout changes</u>                               |
| <input type="checkbox"/> Advisors                            |   |
| <input type="checkbox"/> Program admission requirements      |   |
| <input type="checkbox"/> Continuing eligibility requirements |   |

Note: A change to the Award Type requires the submission of a new program proposal form and a separate program inactivation form. Contact the Director of Curriculum & Assessment for more information.

**Show all changes on the catalog page you attach.**

\* Please submit a [Program Assessment Plan Change](#) form.

**Rationale for proposed changes:**

Division is updating layouts to align with forthcoming part-time layouts

**Financial/staffing/equipment/space implications:****List departments that have been consulted regarding their use of this program.****Signatures:**

Reviewer	Print Name	Signature	Date
Initiator	Brian Martindale	"/s/ Brian Martindale"	1/8/24
Department Chair	Brian Martindale	"/s/ Brian Martindale"	1/8/24
Division Dean/Administrator	Jimmie Baber	<i>Jimmie Baber</i>	1/8/2024
<b>Please return completed form to the Office of Curriculum &amp; Assessment, SC 257 or by e-mail to curriculum.assessment@wccnet.edu</b>			
<b>Once reviewed by the appropriate faculty committees we will secure the signature of the VPI.</b>			
Reviewer	Print Name	Signature	Date

PROGRAM CHANGE FORM

Curriculum Committee Chair	Randy Van Wagnen		
Assessment Committee Chair	Jessica Hale		
Interim Vice President for Instruction	Dr. Brandon Tucker		

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Reviewed by C&A Committees 2/29/24

Program layout updated due to course resequencing. Change made to facilitate data migration for new Course Leaf software. Per 2/1/24 C&A committees' meeting, resequencing with minimal effect to credit hours/per semester does not require C&A Committee review.



## WCC General Education Requirements

Effective Fall 2018

Associate degree programs were updated to meet the revised WCC general education requirements below.

### Course Distribution Requirements

Associate degree students must complete courses from each of six General Education content areas. The requirements vary, depending on which degree is being earned. The number of general education credit hours required for each degree is as follows.

	AA	AS	AAS
Writing/Composition	3-4 credits	3-4 credits	3-4 credits
2nd Writing/Composition or Communication	3-4 credits	3 credits	3 credits
Mathematics	3-4 credits	3-4 credits	3-4 credits
Natural Sciences <sup>1</sup>	7-8 credits	7-8 credits	3-4 credits
Social & Behavioral Science <sup>2</sup>	6 credits	6 credits	3 credits
Arts and Humanities <sup>3</sup>	6 credits	6 credits	3 credits
General Education Electives to reach 30 credits	0-2 credits	0-2 credits	N/A
Minimum	30 credits	30 credits	18 credits

<sup>1</sup> Two courses in Natural Science including one with laboratory experience (from two disciplines)

<sup>2</sup> From two disciplines

<sup>3</sup> From two disciplines



**Program Information Report**

**Construction Management (AACMG)**

**Associate in Arts Degree**

**Program Effective Term: Fall 2018**

**High Demand Occupation High Skill Occupation High Wage Occupation**

This program prepares students for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program transfers to Eastern Michigan University. In addition to the required courses within the degree program, students may transfer additional courses taken at WCC that will be applied to technical, business and math/science requirements for the bachelor's degree program at Eastern Michigan University.

**Articulation:**

Eastern Michigan University, several BS degrees.

This program meets MACRAO. Students must have their transcripts certified for MACRAO completion by the WCC Student Records Office.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: <http://www.wccnet.edu/curriculum/articulation/levelone/colleges/>.

**Program Admission Requirements:**

Students must have an Academic Math Level of 4 to enroll in CMG 150. Two years of high school algebra is recommended.

<b>First Semester</b>		<b>(11 credits)</b>
CMG 150	Introduction to Construction Management	3
ENG 111	Composition I	4
MTH 160	Basic Statistics*	4
<b>Second Semester</b>		<b>(15 credits)</b>
ACC 111	Principles of Accounting I	3
CMG 130	Construction Site Safety and OSHA Regulations	3
MTH 178	General Trigonometry	3
	Arts/Human. Elective(s) 1	3
	Speech/Comp. Elective(s)	3
<b>Third Semester</b>		<b>(12 credits)</b>
BMG 240	Human Resources Management	3
CMG 180	Application of Construction Materials	3
ECO 211	Principles of Economics I	3
	Nat. Sci. Elective(s) 1	3
<b>Fourth Semester</b>		<b>(16 credits)</b>
BMG 207	Business Communication	3
CMG 170	Construction Graphics	3
GLG 114	Physical Geology	4
	Soc. Sci. Elective(s) 2	3
	Arts/Human. Elective(s) 2	3
<b>Fifth Semester</b>		<b>(6 credits)</b>
BMG 111	Business Law I	3
CMG 200	Construction Systems	3

**Minimum Credits Required for the Program: 60**

**Notes:**

\*MTH 160 should be completed at WCC to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will be required unless waived by ACT/SAT or math placement score.

Students transferring to EMU should see the articulation agreement for additional courses that can be taken at WCC.



Done 1/16/18  
NW

**WASHTENAW COMMUNITY COLLEGE  
GENERAL EDUCATION REVISION PROGRAM CHANGE FORM  
FOR AA AND AS PROGRAMS 2018-2019**

Program Code: AACMG	Program Name: Construction Management
Division Code: AS MSE	Department: CND

This form is to be used only for General Education Revision Program Changes for Associate in Arts (AA) and Associate in Science (AS) programs. Any other program changes should be submitted separately using a standard Program Change Form.

**Directions:**

1. Review each general education area under **Requested Changes** below and respond as needed.
2. Attach the semester program layout showing the current program listing from the WCC catalog.
  - a. Indicate any changes to be made on the semester layout.
  - b. Draw a line through any courses that should be removed on the semester layout.
  - c. Write in any courses that need to be added on the semester layout.
3. Submit this form and semester program layout to the Office of Curriculum and Assessment (SC 257).


Current General Education Requirements AA and AS		Revised General Education Requirements 2018-2019 AA and AS	
Writing	6 - 7 credits	English Composition	3 - 4 credits
Speech	3 credits	2 <sup>nd</sup> Course in English Composition or one course in Communication	3 - 4 credits
Mathematics	3 - 4 credits	Mathematics	3 - 4 credits
Natural Sciences	3 - 4 credits	Natural Sciences from 2 disciplines including one lab course	7 - 9 credits
Social & Behavioral Sciences	6 credits	Social & Behavioral Sciences from 2 disciplines	6 credits
Arts & Humanities	6 credits	Arts & Humanities from 2 disciplines	6 credits
Critical Thinking	0 credits	Elective Credits to reach a minimum of 30 credit hours	0 - 3 credits
Computer & Information Literacy	3 credits	Total	30 credits
<b>Total</b>	<b>30 - 33 credits</b>		

Please review each General Education Area in the chart below, and record the needed changes in the chart and on the attached semester layout.

REQUESTED CHANGES	
General Education Area	
English Composition	– The requirement for one writing/English composition course remains the same. No changes will be made unless specifically requested below. (Use Writing Elective or ENG 111) Optional Change:
2 <sup>nd</sup> Course in English Composition or one course in Communication	WCC previously required both a second composition/writing course and a communication course. Your options are: <ol style="list-style-type: none"> <li>1. Allow students to select any course that meets composition/writing or communication (recommended).</li> <li>2. Require students to take a specific composition course (identify course below and on semester layout).</li> <li>3. Require students to take a specific communication course (identify course below and on semester layout).</li> </ol>



Requested Change:
<p><b>2<sup>nd</sup> Course in English Composition or one course in Communication Credit Hours</b>          Because of this change, an extra 3 – 4 credit hours may be available in the program. Please specify how you would like to use those credit hours. Your options are:</p> <ol style="list-style-type: none"> <li>1. Reduce the number of credit hours if the program total is over 60 (<i>recommended</i>).</li> <li>2. Replace the course with elective credits as needed to reach a minimum of 60 credit hours.</li> <li>3. Add a specific program-related course (<i>please add the course in the semester it should be taken on the semester layout</i>).</li> </ol> <p>Requested Change:</p>
<p><b>Mathematics</b> – The requirement for one mathematics course remains the same. However, the courses that meet the MTA requirement have changed slightly. MTH 148, 149 and 167 do not meet the general education requirement for AA or AS degrees. Please identify an alternate course or list “Math elective”.</p> <p>Optional Change:</p>
<p><b>Natural Sciences from 2 disciplines including one lab course</b>          WCC previously required one natural science course. Your options are:</p> <ol style="list-style-type: none"> <li>1. No change needed – a second natural science course is already included in my program.</li> <li>2. Add a second natural science course in the semester shown on the semester layout attached. Unless specific courses are required, include one course identified as a lab science course.</li> </ol> <p>Requested Change:</p>
<p><b>Social &amp; Behavioral Sciences from 2 disciplines</b> – The requirement for two social and behavioral science courses remains the same. No changes will be made unless specifically requested below.</p> <p>Optional Change:</p>
<p><b>Arts &amp; Humanities from 2 disciplines</b> – The requirement for two arts and humanities courses remains the same. No changes will be made unless specifically requested below. (Note: A department can designate a COM course as a requirement here. The same course cannot be counted in two areas.)</p> <p>Optional Change:</p>
<p><b>Computer and Information Literacy</b>          The requirement for computer and information literacy has been removed. Your options are:</p> <ol style="list-style-type: none"> <li>1. Continue to require a specific computer course. If a specific course is required in your program, we will leave it there. If you previously used “Computer and Information Literacy Course,” you will need to specify either a specific course or a list of courses from which to choose.</li> <li>2. Remove the computer and information literacy course if the program will still meet the minimum of 60 credit hours.</li> <li>3. Remove the computer and information literacy course and replace the course with elective or other credits as needed to meet the minimum of 60 credit hours.</li> </ol> <p>Required Change:</p>
<p><b>Elective Credits to reach a minimum of 30 credit hours</b> – A course titled “General Education Credit(s) to Reach a Minimum of 30 Credit Hours” will be created and then added as needed to the program.</p>

Reviewer	Print Name	Signature	Date
Initiator			
Department Chair			
Division Dean/ Administrator			
Vice President for Instruction	Kimberly Hurns		1/9/18

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: AACMG Program Name: Construction Management

Effective Term: SS09

Division Code: VCT Department: Construction

**Directions:**

1. Attach the current program listing from the WCC catalog or Web site and indicate any changes to be made.
2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.
3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using a Master Syllabus form, but should be submitted at the same time as the program change form.

**Requested Changes:**

- |  |   |
|--|---|
| <input type="checkbox"/> Review  | <input checked="" type="checkbox"/> Program admission requirements  |
| <input checked="" type="checkbox"/> Remove course(s):<br>COM101,CEM105,PLS112,PSY100,ENG181,PHL205ARC117 | <input type="checkbox"/> Continuing eligibility requirements  |
| <input checked="" type="checkbox"/> Add course(s): GLG114,MTH176,PHY111,alternatives                     | <input type="checkbox"/> Program outcomes   |
| <input type="checkbox"/> Program title (title was _____)   | <input type="checkbox"/> Accreditation information  |
| <input type="checkbox"/> Description   | <input type="checkbox"/> Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses) |
| <input type="checkbox"/> Type of award   | <input checked="" type="checkbox"/> Other <u>notes</u>  |
| <input type="checkbox"/> Advisors  |   |
| <input checked="" type="checkbox"/> Articulation information   |   |

Show all changes on the attached page from the catalog.

**Rationale for proposed changes or discontinuation:**

Eastern Michigan University changes to the Articulation agreement with Washtenaw Community College

**Financial/staffing/equipment/space implications:**

**List departments that have been consulted regarding their use of this program.**

Drafting

**Signatures:**

Reviewer	Print Name	Signature	Date
Initiator	Cristy Lindemann		1.30.09
Department Chair	Cristy Lindemann		1.30.09
Division Dean/Administrator	Bruce Greene		2/2/09
Vice President for Instruction	Roger Palay		2/24/09
President	Larry Whitworth		

Do not write in shaded area. Entered in: Banner \_\_\_\_\_ C&A Database 2/26 Log File 2/23/09 Board Approval 3/26/09

Please submit completed form to the Office of Curriculum and Assessment and email an electronic copy to [sjohn@wccnet.edu](mailto:sjohn@wccnet.edu) for posting on the website.

Washtenaw Community College.

**Certificates and Degrees.**

<http://www.wccnet.edu/academicinfo/creditoofferings/programs/degree.php?code=AACMG>

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**Construction Management (AACMG)**

Associate in Arts Degree

Program requirements shown below are for catalog year: 2008 - 2009 Change Year

**Description:**

This program prepares students for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program transfers to Eastern Michigan University. In addition to the required courses within the degree program, students may transfer additional courses taken at WCC that will be applied to technical, business and math/science requirements for the bachelor's degree program at Eastern Michigan University.

**Contact Information:**

Division: Vocational Technologies  
 School: [School of Construction Technology](#)  
 Department: [Construction Institute](#)  
 Advisors: [Cristy Lindemann](#)

**Articulation:**

Eastern Michigan University, several BS degrees.

This program meets MACRAO. Students must have their transcripts certified for MACRAO completion by the WCC Student Records Office.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: <http://www.wccnet.edu/departments/curriculum/articulation.php?levelone=colleges>.

**Admission Requirements:**

Academic Math Level 4 or ~~MTH 169~~ with a "C" or better is required to enroll in CMG 150. Two years of high school algebra is recommended.

*English Writing Requirement: SEE ARTICULATION Agreement: (30 Credits) ATTACHED*

*General Education Requirements*

ENG 111	Composition I
ENG 226	Composition II
<del>COM 101</del>	<del>Fundamentals of Speaking</del>
MTH 160	Basic Statistics
<del>GEM 105 or</del>	<del>Fundamentals of Chemistry</del>
<del>CEM 111</del>	<del>General Chemistry I</del>
<del>PLS 112</del>	<del>Introduction to American Government</del>
<del>PSY 100</del>	<del>Introductory Psychology</del>
<del>ENG 181 or</del>	<del>* African-American Literature</del>
<del>ENG 214</del>	<del>Literature of the Non - Western World</del>
<del>PHL 205</del>	<del>Ethics</del>

*MATH & Science: 4  
 GLG 114 Physical Geology 3  
 Humanities Requirement (8-9)  
 one speech course 4  
 B-6 credits to complete 3  
 Social Science (9) 3  
 ECO 211 3  
 2 courses - 4 credits 3  
 See notes*

**Major/Area Requirements**

(15 Credits)

<del>ARC 117</del>	<del>Construction Materials</del>	3
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<u>CMG 130</u>	Construction Site Safety and MIOSHA Regulations	3
<u>CMG 150</u>	Introduction to Construction Management	3
<u>CMG 170</u>	Construction Graphics	3
<u>CMG 200</u>	Construction Systems	3

**Required Support Courses****(21 Credits)**

<u>ACC 111</u>	Principles of Accounting I	3
<u>BMG 207</u>	Business Communication	3
<u>BMG 240</u>	Human Resources Management	3
<u>CIS 100</u>	Introduction to Computers and Software Applications	3
<u>ECO 211</u>	Principles of Economics I	3
<u>MTH 178</u>	General Trigonometry	3
<u>BMG 106</u> or	Legal Basics in Business	
<u>BMG 111</u>	Business Law I	3

**Minimum Credits Required for the Program:****66 Credits**

*Notes: MTH 160 should be completed at WCC to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will be required unless waived by ACT/SAT or math placement score.*

Footnotes:

\*See the EMU ~~Diverse World Requirement list~~

Students must meet the Computer and Information Literacy Graduation Requirement. See General Education Graduation Requirements in the WCC Bulletin.

This website is for informational purposes only and is not to be construed as a binding offer or contract between WCC and the student. The information presented here is believed accurate, but is NOT guaranteed and is subject to change without notice.

For official information, see an Advisor.

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Program Information Report

**School of Construction Technology**

Become part of the growing global community of Skilled Trades professionals or Skilled Trades managers. Design, plan, construct and complete structures for your home or for your career. You can earn a certificate or degree in Residential Construction, Construction Management or Heating, Ventilation and Air Conditioning. These programs offer the perfect blend of classroom education and hands-on training. At the Henry S. Landau Design and Construction Training Center, you will be taught construction skills from the ground up. You can learn classic skills such as woodworking or modern techniques needed to maintain or improve your own structure. On the main campus, the HVAC program offers a wide range of training to equip high-end technicians with the knowledge and skills needed for successful entry into the field.

Washtenaw Community College offers programs at several levels for students who want to begin new careers, or advance in their existing careers. The first level is the certificate, which can vary from nine to thirty-six credits, depending on the field. Certificates generally prepare students for entry-level jobs.

After completing a certificate, students can progress to the next level, the advanced certificate. The credit hours required for these programs also vary. This type of certificate provides a more specialized level of skill development, and often allows students to upgrade their positions at their places of employment.

The next level, an Associate in Applied Science, is available for some programs. For some career fields, it is possible to earn a certificate, advanced certificate, and an Associate in Applied Science degree in the same field. In these cases, the credit hours from the certificate and advanced certificate can be applied to the credit hours needed for the Associate in Applied Science degree.

Alternatively, students can earn an AAS in Occupational Studies by completing a certificate, advanced certificate and General Education requirements.

**Construction Management**

Prepare for work in the construction management or property maintenance industries through the completion of these programs.

**Construction Management (AACMG)**

**Associate in Arts Degree**

**Program Effective Term: Fall 2009**

This program prepares students for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program transfers to Eastern Michigan University. In addition to the required courses within the degree program, students may transfer additional courses taken at WCC that will be applied to technical, business and math/science requirements for the bachelor's degree program at Eastern Michigan University.

**Articulation:**

Eastern Michigan University, several BS degrees.

This program meets MACRAO. Students must have their transcripts certified for MACRAO completion by the WCC Student Records Office.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: <http://www.wccnet.edu/departments/curriculum/articulation.php?levelone=colleges>.

**Program Admission Requirements:**

Students must have an Academic Math Level of 4 to enroll in CMG 150. Two years of high school algebra is recommended.

General Education Requirements		(33 credits)
ENG 111	Composition I	4
ENG 226	Composition II	3
Speech	Elective(s)*	3
MTH 160	Basic Statistics**	4
GLG 114	Physical Geology	4
ECO 211 and	Principles of Economics I	3
Soc. Sci.	Complete two additional courses, one in a subject other than ECO.	6
Arts/Human.	Elective(s)	6
Major/Area Requirements		(15 credits)
CMG 130	Construction Site Safety and MIOSHA Regulations	3

**Program Information Report**

CMG 150	Introduction to Construction Management	3
CMG 170	Construction Graphics	3
CMG 180	Application of Construction Materials	3
CMG 200	Construction Systems	3

<b>Required Support Courses</b>		<b>(21 credits)</b>
ACC 111	Principles of Accounting I	3
BMG 207	Business Communication	3
BMG 240	Human Resources Management	3
CIS 100	Introduction to Computers and Software Applications	3
ECO 211	Principles of Economics I	3
MTH 178	General Trigonometry	3
BMG 106 or	Legal Basics in Business	3
BMG 111	Business Law I	3

**Minimum Credits Required for the Program:** **69**

**Notes:**

\*Choose any COM course that meets General Education Requirements.

\*\*MTH 160 should be completed at WCC to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will be required unless waived by ACT/SAT or math placement score.

Students transferring to EMU should see the articulation agreement for additional courses that can be taken at WCC.

Students must meet the Computer and Information Literacy Graduation Requirement. See General Education Graduation Requirements in the WCC Bulletin.

## **Construction Management (AACMG) Associate in Arts Degree**

**Program Effective Term: Fall 2004**

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This program prepares you for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program transfers to Eastern Michigan University and Ferris State University. In addition to the required courses within the degree program, students may transfer additional courses taken at WCC that will be applied to Technical, Business and Math/Science requirements for the bachelor's degree program at Eastern Michigan University.

### **Articulation:**

This program has articulation agreements with:

- Eastern Michigan University, College of Technology, for the Bachelor of Science in Construction Management.
- Ferris State University, College of Technology, for the Bachelor of Science in Construction
- The program meets MACRAO plus EMU's additional four requirements. Students must have their WCC transcripts endorsed for MACRAO completion.
- Copies of articulation agreements can be obtained from the Counseling Office or a program advisor.

### **Program Admission Requirements:**

A minimum COMPASS Algebra score of 66, or MTH 169 with a "C" or better is required to enroll in CMG 150 and MTH 160. Two years of high school algebra is recommended.

### **Continuing Eligibility Requirements:**

Students must demonstrate basic computer literacy skills by successfully passing the Computer and Information Literacy Test. The test may be taken at any point during the program, but must be completed before graduating.

### **General Education Requirements (30 credits)**

COM 101	Fundamentals of Speaking	3
ENG 111	Composition I	4
ENG 226	Composition II	3
MTH 160	Basic Statistics	4
PHL 205	Ethics	3
PLS 112	Introduction to American Government	3
PSY 100	Introductory Psychology	3
CEM 105 or	Fundamentals of Chemistry	
CEM 111	General Chemistry I	4
ENG 181 or	African American Literature	
ENG 214	Literature of the Non-Western World	3

### **Major/Area Requirements (15 credits)**

ARC 117	Construction Materials	3
CMG 130	Construction Site Safety and MIOSHA Regulations	3
CMG 150	Introduction to Construction Management	3
CMG 170	Construction Graphics	3
CMG 200	Construction Systems	3

### **Required Support Courses (21 credits)**

ACC 111	Principles of Accounting I	3
BMG 207	Business Communication	3
BMG 240	Human Resources Management	3
CIS 100	Introduction to Software Applications	3
ECO 211	Principles of Economics I	3
MTH 178	General Trigonometry	3
BMG 106 or	Legal Basics in Business	
BMG 111	Business Law I	3

**Minimum Credits Required for the Program:**

**66**

## **Construction Management (AACMG) Associate in Arts Degree**

**Program Effective Term: Fall 2002**

This program prepares you for entry-level jobs in the construction industry as well as for transfer to a bachelor's degree program in construction management at a four-year college or university. Students who transfer will continue developing the skills needed to work for construction contractors, engineering/architectural firms, public agencies, or trade associations in positions such as office engineer, field engineer, safety engineer, project engineer, foreman, estimator, scheduler, expeditor, quality control engineer, inspector, material representative or independent contractor. The program was specifically designed for transfer to Eastern Michigan University. However, this program also transfers to Ferris State University.

In addition to the required courses within the associate in arts degree, students may transfer additional courses taken at WCC that will be applied to Technical, Business and Math/Science requirements for the bachelor's degree program at Eastern Michigan University.

### **Health and Applied Technologies Division Construction Institute Department**

**Advisor:** Patricia Crider

#### **Articulation:**

This program has articulation agreements with

- Eastern Michigan University, College of Technology, Bachelor of Science in Construction Management.
- The program meets MACRAO plus EMU's additional four requirements. Students must have their WCC transcripts endorsed for MACRAO. For more on MACRAO, see Appendix A.

-Ferris State University, College of Technology, Construction and Technology Management Department, Bachelor of Science in Construction

#### **Program Admission Requirements:**

Two years of high school Algebra, or a minimum COMPASS Algebra score of 66, or MTH 169 with a "C" or better

#### **Continuing Education Requirements:**

Students must demonstrate basic computer literacy skills by successfully passing the Computer and Information Literacy Test. The test may be taken at any point during the program, but must be completed before graduating.

#### **General Education Requirements (30 Credits)**

COM 101	Fundamentals of Speaking	3
ENG 111	Composition I	4
ENG 122	Composition II	3
MTH 160	Basic Statistics	4
PHL 205	Ethics	3
PLS 112	Introduction to American Government	3
PSY 100	Introductory Psychology	3
Choose:	CEM 105 Fundamentals of Chemistry or CEM 111 General Chemistry I	4
Choose:	ENG 181 African American Literature or ENG 214 Literature of the Non-Western World	3

#### **Major/Area Requirements (17 Credits)**

ARC 117	Construction Materials	3
CMG 130	Construction Site Safety and MIOSHA Regulations	3
CMG 150	Introduction to Construction Management	3
CMG 170	Construction Graphics	4
CMG 200	Construction Systems	4

#### **Required Support Courses (21 Credits)**

ACC 111	Principles of Accounting I	3
BMG 207	Business Communication	3
BMG 240	Human Resources Management	3
CIS 100	Introduction to Software Applications	3
ECO 211	Principles of Economics I	3
MTH 178	General Trigonometry	3

Choose: BMG 106 Legal Basics in Business or  
BMG 111 Business Law I

3

**Minimum Credits Required for the Program:**

**68**

Footnotes:

*\*See your advisor to select appropriate electives*

**Washtenaw Community College  
Program Change Request Form**

Program Code: 2001 Program Title: Construction Management (Apeonm)

Effective Year: Fall2002

**1. Course Related Program Changes:**

Course	Course Title	Elective Group (if applicable)	Credit	Sem	Change(s)
GENERAL EDUCATION	1. Complete The General Education Requirements For The Aas Degree		21.0 0		Remove <input checked="" type="checkbox"/> Add <input type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)
CTRCT	2. Complete The Residential Construction Certificate (CTRCT)		19.0 0		Remove <input checked="" type="checkbox"/> Add <input type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)
CVMGTA	3. Complete The Management Supervision Advanced Certificate (CVMGTA)		12.0 0		Remove <input checked="" type="checkbox"/> Add <input type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)
ELECTIVES	4. Complete 11 Credit Hours As Free Electives To Bring The Program Total To 60 Credits.		11.0 0		Remove <input checked="" type="checkbox"/> Add <input type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)
GENERAL EDUCATION	See Complete The General Education Requirements For An Associate In Science Degree. The Attached Ppaf Which Lists The Specific Courses.		36.0 0		Remove <input type="checkbox"/> Add <input checked="" type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)
MAJOR AREA	See The Attached Ppaf Which Lists The Major/Area Requirements.		17.0 0		Remove <input type="checkbox"/> Add <input checked="" type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)
REQUIRED SUPPORT	See The Attached Ppaf Which Lists The Required Support Courses.		16.0 0		Remove <input type="checkbox"/> Add <input checked="" type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)
					Remove <input type="checkbox"/> Add <input type="checkbox"/> Change Title <input type="checkbox"/> <input type="checkbox"/> Change Credit (was: _____) <input type="checkbox"/> Shift in Sequence (was: _____)

**2. Total Credit Hours for Program:** Before Proposed Changes: 60 After Proposed Changes: 69

**Non-Course Related Program Changes:** (description, advisors, admission criteria, title, etc.)  
~~Title:~~ Construction Management-Transfer, Associate in Science (AS) Degree  
**Description:** This program prepares you for transfer to a Bachelor's degree program in Construction Management at a four-year college or university, where you will continue developing the skills needed for middle and upper level management in general contracting. The program was specifically designed for transfer to Eastern Michigan University.  
**Advisor:** Patricia Crider

**4. Rationale for Proposed Changes:** Provide students with an alternative to the Residential Construction Certificate and Occupational Education AAS degree track with courses that articulate to four-year institutions.

**5. Financial/Staffing/Equipment/Space Implications:** None

**6. Has the department consulted with all departments that may be impacted?** Yes  No  NA

**7. Signatures:**

Reviewer	Print Name	Signature	Date
Program Change Initiator:	Patricia Crider	<i>Patricia Crider</i>	4-9-02
Department Chair:	Patricia Crider	<i>Patricia Crider</i>	4-9-02
Division Dean:	Granville Lee	<i>G. Lee</i>	4/9/02
VP, Instruction/Student Services:		<i>[Signature]</i>	4/28



**Major Area Requirements:**

- ARC 117 Construction Materials.....3
- CMG 130 Construction Site Safety  
& MIOSHA Regulations.....3
- CMG 150 Introduction to Construction  
Management.....3
- CMG 170 Construction Graphics.....4
- CMG 200 Construction Systems.....4

**17 Credits**

**Required Support Courses:**

- ACC 111 Principles of Accounting I.....3
- BMG 106 Legal Basics in Business.....3
- or
- BMG 111 Business Law I.....3
- BMG 207 Business Communication..... 3
- BMG 240 Human Resource Management..... 3
- CIS 100 Introductions to Software Applications...3
- PEA 102 Cardiovascular Training.....1

**16 Credits**

**Minimum credit required for the program:**

69  
68

**7. Program Development Plan (timetable, costs, personnel):**

Courses to be available for Fall 2002

**Signatures:**

Department Chair/Director: Patricia Crider  Date: April 8, 2002

Comments:

Dean(s)/Administrator: Granville Lee  Date: 4/9/02

Comments:

Executive Vice President of Instruction:

- Approved for development of PAD (Program Approval Document)
- Returned for additional review/development of PPAF (details attached)
- Not approved

Signature:  Date: 4/20

**WASHTENAW COMMUNITY COLLEGE  
PRELIMINARY PROGRAM APPROVAL FORM**

**Proposed Name of Program:** Construction Management Transfer

**Faculty/Initiator(s):** Patricia Crider

**Division:** HAT      **Department:** CIND      **Estimated Start up Term:** Fall 2002

Type of Program:     A.A.             A.S.             A.A.S.  
 Certificate of Completion     Certificate             Advanced Certificate             Post Associate Certificate

**1. General Description of Program (purpose, curriculum design, need for new courses):**

This program prepares you for transfer to a Bachelor's degree program in Construction Management at a four-year college or university, where you will continue developing the skills needed for middle and upper management in general contracting. The program was specifically designed for transfer to Eastern Michigan University.

**2. Need for Program (new jobs, industry changes, etc...):**

Graduates of the Construction Management Transfer program can expect to compete for positions in middle and upper management positions in the construction industry.

**3. Enrollment Projections:**

40-50 students per year

**4. Instructional Resources and Space Needs (equipment, labs, classrooms, consumable supplies):**

\$2000.00-\$5000.00 annually for consumable supplies

**5. Faculty Resources (full-time, part-time, consultant):**

Current full and part-time faculty resources are sufficient for the start of the program.

**6. Curricular Connections (Other WCC instructional units, articulations, accreditations):**

Washtenaw Community College

**General Education Requirements**

ENG 111 Composition I.....	4
ENG 122 Composition II.....	3
COM 101 Fundamentals of Speaking.....	3
MTH 160 Basic Statistics.....	4
MTH 169 Intermediate Algebra.....	4
MTH 178 General Trigonometry.....	3
CEM 105 Fundamentals of Chemistry .....	4
or	
CEM 111 General Chemistry I.....	4
GLG 114 Physical Geology.....	4
ECO 211 Principles of Economics.....	3
PHL 101 Introduction to Philosophy.....	3

35  
~~36~~ Credits

**Health and Applied Technologies Division (HAT)  
Construction Management Programs Comparison**

		<b>Institution: Course Number: Description (Credit Hours)</b>	
<b>Required Courses</b>	<b>WCC-AAS Degree</b>	<b>Ferris State University (FSU):</b>	<b>Eastern Michigan University (EMU):</b>
<b>General Education</b>	<p>1. Writing: ENG 111 Composition I (4) ENG 122 Composition II (3)</p> <p>2. Speech: COM 101- Fundamentals of Speaking (3)</p> <p>3. Mathematics: MTH 160 -Basic Statistics (4) MTH 169 Intermediate Algebra (4) MTH 178 – General Trigonometry (3)</p> <p>4. Natural Science: CEM 105 Fundamentals of Chemistry (4) or CEM 111 – General Chemistry I (4) GLG 114 – Physical Geology (4)</p> <p>5. Social/Behavioral Science: ECO 211- Principles of Economics I (3)</p> <p>6. Arts and Humanities: PHL 101 – Introduction to Philosophy (3) <b>General Education Credits (36)</b></p>	<p>COMM 121: Fundamentals of Public Speaking (3)</p> <p>ECON 221: Principles of Economics (3)</p> <p>ENGL 150: English 1 (3)</p> <p>ENGL 250: English 2 (3)</p> <p>GEOL 160: Physical Geology (4)</p> <p>MATH 116: Intermediate Algebra and Numerical Trigonometry (4)</p> <p>MATH 126: Algebra and Analytic Trigonometry (4)</p> <p>PHYS 211: Introductory Physics 1 (4) <b>General Education Credits (28)</b></p>	<p>CHEM 119: Fundamentals of Chemistry (4)</p> <p>CTAS 121: Fundamentals of Speech (2)</p> <p>ECON 201: Principles of Economics I (3)</p> <p>ECON 202: Principles of Economics II (3)</p> <p>ENGL 121: English Composition (3)</p> <p>INTE 105: Computer Applications for Industry (3)</p> <p>MATH 107: Plane Trigonometry (2)</p> <p>MATH 118/119: Mathematical Analysis for Social Sciences III (6)</p> <p>PHY 221: Mechanics, Sound, and Heat (4)</p> <p>PLSC 112: American Government (3)</p> <p>PSY 101: General Psychology (3) <b>General Education Credits (36)</b></p>

<p><b>Major</b></p>	<p><b>Certificate-Construction Management</b>  ARC 117:  Construction Materials (3)  CMG 130:  Construction Site Safety &amp; MIOSHA Regulations (3)  CMG 150:  Introduction to Construction Mgmt (3)  CMG 170:  Construction Graphics (4)  CMG 200:  Construction Systems (4)  <b>Major "Certificate" Credits (17)</b></p>	<p><b>BLAW 221:</b>  Elementary Business Law (3)  CONM 111:  Construction Practices (3)  CONM 112:  Plans and Specifications (3)  CONM 113:  Computer Applications (3)  CONM 121:  Materials Properties and Testing (3)  CONM 122:  Construction Surveying and Layout (3)  CONM 211:  Construction Quantity Estimating (3)  CONM 212:  Soils and Foundations (3)  CONM 221:  Statics and Structures (4)  CONM 222:  Construction Administration (3)  <b>Major Credits (31)</b></p>	<p><b>ACC 130:</b>  Accounting for Non-Business Majors (3)  CNST 125:  Introduction to Construction (2)  CNST 201:  Construction Systems (3)  CNST 206:  Surveying (3)  CNST 213:  Construction Safety (3)  CNST 229:  Planning and Scheduling (3)  DS 265:  Business Statistics (3)  GEOL 160:  Physical Geology (4)  IS 215:  End-User Computing (3)  LAW 293:  Legal Environment of Business (3)  MGMT 202:  Business Communications (3)  <b>Major Credits (33)</b></p>
<p><b>Support</b></p>	<p>ACC 111:  Principles of Accounting (3)  BMG 106 or BMG 111:  Legal Basics in Business (3)  or  Business Law I (3)  BMG 207:  Business Communication (3)  BMG 240:  Human Resource Management (3)  CIS 100:  Introduction to Software Applications (3)  PEA 102 Cardiovascular training (1)  <b>Support Credits (16)</b></p>		
<p><b>Commercial/ Industrial Track</b></p>		<p><b>BCTM 213:</b>  Wood and Steel Framing and Finishes (3)  <b>BCTM 223:</b>  Mechanical and Electrical Plans and Specifications (3)  <b>BCTM 225:</b>  Field Engineering (3)  <b>Commercial/Industrial Track Credits (9)</b></p>	

<p><b>Highway/ Bridge Track</b></p>		<p>CETM 214: Advanced Materials Properties and Resting (3) CETM 215: Pavement Design and Construction (3) CETM 226: Highway Technology (3) CETM 227: Hydraulics and Hydrology (3) <b>Highway/Bridge Track Credits (12)</b></p>	
<p><b>Program Totals</b></p>	<p><b>Minimum Credits Required for Associate in Science (AS) Degree (69)</b></p>		

**Construction Management (APCONM)  
Associate in Applied Science Degree**

'PHASED OUT'

**Program Effective Term: Fall 2002**

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. You can earn an Associate in Applied Science in Construction Management by completing the requirements listed below.

**Health and Applied Technologies Division  
Technical Education Department**

**Advisor:** Les Pierce

**Continuing Education Requirements:**

Students must demonstrate basic computer literacy skills by successfully passing the Computer and Information Literacy Test. The test may be taken at any point during the program, but must be completed before graduating.

**Requirements**

- |  |       |
|--|-------|
| 1. Complete the General Education Requirements for the Associate in Applied Science (AAS) Degree | 18-21 |
| 2. Complete the Residential Construction Certificate (CTRCT)                                     | 19    |
| 3. Complete the Management Supervision Advanced Certificate (CVMGTA)                             | 12    |
| 4. Complete 11 credit hours as free electives to bring the program total to 60 credits*          | 11    |

**Minimum Credits Required for the Program: 60**

Footnotes:

*\*See your advisor to select appropriate electives*

**Washtenaw Community College  
Program Change Request Form**

Program Code:  
**APCONM**

Program Name: **Construction Management**

Effective Term: **F 2001**

A program sheet for the above named program is attached. It should reflect any approved changes that have already been submitted for this year. Please review the program sheet carefully and indicate any changes that you would like to make. Draw lines through anything that should be removed and write in any additions. Extensive narrative changes may be written on a separate sheet. Check the boxes below for each type of change being proposed. If courses are being changed as part of this proposal, they must be approved separately, using a Course-Syllabus Approval Form (CSAF).

**1. Requested Changes:**

- |   |  |
|---|--|
| <input type="checkbox"/> Remove Course(s)                     | <input type="checkbox"/> Advisors                                  |
| <input type="checkbox"/> Add Course(s)                        | <input type="checkbox"/> Articulation Agreements                   |
| <input checked="" type="checkbox"/> Increase/Decrease Credits | <input type="checkbox"/> Program Admission Requirements/Procedures |
| <input type="checkbox"/> Course Sequence                      | <input type="checkbox"/> Continuing Eligibility Requirements       |
| <input type="checkbox"/> Name (new name _____)                | <input type="checkbox"/> Footnotes                                 |
| <input type="checkbox"/> Major/Program Code (new code _____)  | <input type="checkbox"/> Other _____                               |
| <input type="checkbox"/> Description                          |  |

Show all changes on the attached program sheet if possible.

**Rationale for Proposed Changes:** A REDUCTION IN CREDITS FOR CON 104, AND AN INCREASE IN CREDITS FOR 204 AND 205 DUE TO CHANGES IN CONTENT AND CONTACT HOURS.

↓  
~~Not Approved~~

SEE CTRCT

**3. Financial/Staffing/Equipment/Space Implications:** ACCESS TO THE COMPUTERS IN OE 157 AND A PERIODIC UPGRADE EXPENSE FOR SOFTWARE OF APPROXIMATELY \$5000.

**4. Has the department consulted with all departments that may be impacted?** Yes  No  NA

Comments:

**Signatures:**

Reviewer	Print Name	Signature	Date
Program Change Initiator:	L Pierce		01-19-01
Department Chair:	L Pierce		01-19-01
Division Dean:			1/23/01
VP, Instruction/Student Services:			

Access Program File 3/30/01 Log 3/30/01  
Copies: Initiator, Department Chair, Dean, Curriculum File

Copied and Returned \_\_\_\_\_  
New Listing to: Counseling; Admissions

**Construction Management (APCONM)  
Associate in Applied Science Degree**

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. You can earn an AAS in Construction Management, by completing the requirements listed below.

**Technical Education Department**

**Advisors:** Les Pierce

Requirement Credit Hours

Complete the Residential Construction Certificate (CTRTC) ~~21~~ - 21

Complete the Management Supervision Advanced Certificate (CVMGTA)..... 12

Electives\* Complete 10 credit hours as free electives ..... 10 11

Complete the General Education Requirements for the Associate in Applied Science (AAS) ..... 18-21

**Credits Required for the Program:** ..... ~~60-68~~

\*See your advisor to select appropriate electives

60-63

19

COM	104	3	ok
(CON	205)	5	
CON	204	4	
CON	205	4	
CON	174-199	3	
		<hr/>	
		21	



# Area

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## **Construction Management (APCONM) Associate in Applied Science Degree**

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Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. You can earn an AAS in Construction Management by completing the requirements listed below.

**Technology Division**

**Technology Education Department**

**Advisors:** Les Pierce

### **Requirements**

- |  |       |
|--|-------|
| 1. Complete the residential Construction Certificate (CTRCT)                                     | 19    |
| 2. Complete the Management Supervision Advanced Certificate (CVMGTA)                             | 12    |
| 3. Complete the General Education Requirements for the Associate in Applied Science (AAS) Degree | 18-21 |
| 4. Complete 11 credit hours as free electives to bring the program total to 60 credits.          | 11    |

**Minimum Credits Required for the Program** **60**

Footnotes:

*\*See your advisor to select appropriate electives*

from P. Crider

JW  
5/2/01

**Construction Management (APCONM)  
Associate in Applied Science Degree**

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. You can earn an AAS in Construction Management by completing the requirements listed below.

**Technology Division  
Technology Education Department**

**Advisors:** Les Pierce

**Requirements**

- |  |       |
|--|-------|
| 1. Complete the residential Construction Certificate (CTRCT)                                     | 19    |
| 2. Complete the Management Supervision Advanced Certificate (CVMGTA)                             | 12    |
| 3. Complete the General Education Requirements for the Associate in Applied Science (AAS) Degree | 18-21 |
| 4. Complete 11 credit hours as free electives to bring the program total to 60 credits.          | 11    |

**Minimum Credits Required for the Program: 60**

Footnotes:

\*See your advisor to select appropriate electives

**Construction Supervision (APCNSP)  
Associate in Applied Science Degree**

This program gives indentured apprentices and journeypersons of the United Association of Plumbers and Pipefitters the opportunity to apply their work in a trade specialty toward an associate's degree in Construction Supervision. In addition to four courses in Construction Supervision, students will complete general education courses and receive non-traditional credit for their work experience in an area of specialization such as plumbing, pipefitting, HVAC, or sprinklerfitting.

**Technology Division  
Technology Education Department**

**Advisors:** Roger Bertoia, Patricia Crider

**Program Admission Requirements:**

Open only to United Association of Plumbers Apprentices

**General Education Requirements (18 Credits)**

Elective \* Complete one course from each of the six General Education Areas for the AAS degree 18-20

**Major/Area Requirements (42-45 Credits)**

- |         |  |    |
|---------|--|----|
|         | Apply for Non-Traditional credit for work experience in a specialization in plumbing, pipefitting, HVAC, or sprinklerfitting | 30 |
| UAS 111 | Introduction to Construction Supervision I   | 3  |
| UAS 122 | Construction Supervision II  | 3  |
| UAS 211 | Construction Supervision III   | 3  |
| UAS 222 | Project Management in the Construction Industry  | 3  |
| UAS 226 | Legal Aspects of the Construction Industry   | 3  |

**Minimum Credits Required for the Program: 60-63**

Footnotes:

\*Credit for general education courses may be transferred from accredited colleges or universities in the United States

**UAS 226 Legal Aspects of the Construction Industry 3 credits**

**Prereqs: UAS 111**

**Coreqs: None**

**45 contact hours**

**This course will provide an in-depth study of the legal aspects of the construction industry. Students will explore the law of the contract at large, obligations of the parties, remedies under the contract, administration of the contract, warranties, bonds, payments, and > subcontracting. Operational liabilities will also be covered and includes topics such as; liabilities for defective structures, limitations of actions, claims processing and dispute resolution.**

**United Association Training**

**UAT**

**UAT 111: Apprentice Training 3 Credits**

**Prerequisites: Admission to the Industrial Training program**

**Corequisites: None**

**45 lecture, 0 lab, 0 clinical, 0 other, 45 total contact hours**

**Fullfills Core Elements: None**

This course will focus on the principles of learning, elements of trade teaching and the methods of teaching an applied technical skill. Students must be admitted to the Industrial Training program before registering for this course.

**UAT 121: Apprentice Training II 3 Credits**

**Prerequisites: Admission to the Industrial Training program**

**Corequisites: None**

**45 lecture, 0 lab, 0 clinical, 0 other, 45 total contact hours**

**Fullfills Core Elements: None**

This course will focus on developing instructional objectives, planning and presenting related information lessons and the methods of teaching a second applied technical skill. Students must be admitted to the Industrial Training program before registering for this course.

**UAT 131: Apprentice Training III 3 Credits**

**Prerequisites: Admission to the Industrial Training program**

**Corequisites: None**

**45 lecture, 0 lab, 0 clinical, 0 other, 45 total contact hours**

**Fullfills Core Elements: None**

This course will focus on the development of written tests, an elective professional skill, and a third teaching demonstration in a technical skill area. Students must be admitted to the Industrial Training program before registering for this course.

**UAT 141: Apprentice Training IV 3 Credits**

**Prerequisites: Admission to the Industrial Training program**

**Corequisites: None**

**45 lecture, 0 lab, 0 clinical, 0 other, 45 total contact hours**

**Fullfills Core Elements: None**

This course will focus on discussion and interaction techniques, an elective professional skill and the teaching methods in a fourth technical skill area. Students must be admitted to the Industrial Training program before registering for this course.

## Washtenaw Community College Program Change Request Form

Program Code: CON

Program Title: Construction Management

Effective Bulletin Year: 98-99

**1. Course Related Program Changes:**

Course	Course Title	Restricted Elective Group (if applicable)	Credit	Sem	Change(s)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)
					Remove ___ Add ___ Change Title ___ ___ Change Credit (was: ___) ___ Shift in Sequence (was: ___)

**2. Total Credit Hours for Program:**

Before Proposed Changes: \_\_\_\_\_

After Proposed Changes: \_\_\_\_\_

**3. Non-Course Related Program Changes:** (description, advisors, admission criteria, title, etc.)

Program description, advisors(add P. Stegall). See attached.

**4. Rationale for Proposed Changes:**

**5. Financial/Staffing/Equipment/Space Implications:**

**6. Has the department consulted with all affected instructional departments?** Yes \_\_\_ No \_\_\_ NA \_\_\_

**7. Signatures:**

Reviewer	Print Name	Signature	Date
Program Change Initiator:	Patricia Stegall	<i>Patricia Stegall</i>	6-8-98
Department Chair:			
Division Dean:		<i>R.R. Burton</i>	6/8/98
VP, Instruction/Student Services:		<i>[Signature]</i>	6/11/98

If significant changes are proposed, please attach a copy of the most recent program listing from the College Bulletin with changes marked on it. If courses are being changed as part of this proposal, course changes must be approved using the Course/Syllabus Approval Form.

*6/11/98*  
*VP/SS*

## CATALOGUE REVISIONS/CORRECTIONS (CORRECTIONS UNDERLINED)

### CONSTRUCTION MANAGEMENT

Associate in Applied Science Degree Program: Code CON

Advisors: L. Pierce, M. Pogliano, P. Stegall, J. Teevens

This program prepares students for supervisory and/or mid-management positions in the broad construction industry. Construction managers are responsible for a wide range of duties including project management and supervision, estimating and bid preparation, office supervision, scheduling, jobsite supervision, and material procurement. This position interfaces with owners, contractors, subcontractors, vendors and inspectors. This program is designed as a two-year terminal degree program. Those students seeking to transfer to a baccalaureate program should confer with a program advisor to select courses that will meet transfer requirements.

### Journeyman\* Industrial

Associate in Technical Studies Degree Program: Code JMI

This Associate Degree can be awarded to skilled tradespersons upon earning 60 hours or more including the courses listed below. All credits earned in Trade Related Instruction may be applied to the Journeyman Industrial Degree. Credit earned at other institutions offering trade related instruction programs are evaluated and may be applicable.

CIS 100 INTRO TO COMPUTERS	3
ENG 111 COMPOSITION I	4
MTH 151, 160, 169, OR 179	4
PLS 150 State and Local Government	3
SCI 100 INTRO TO NATURAL SCIENCE	1
ELECTIVE** RESTRICTED HUMANITIES ELECTIVE	1-3
ELECTIVES*** TRADE RELATED INSTRUCTION ELEC.	44

TOTAL CREDIT HOURS FOR PROGRAM: 60-62

\*The term journeyman is a term universally accepted to indicate a gender-neutral level of competence.

\*\* Choose from list of Humanities courses that meet elements 13 and 14 on page 64.

\*\*\* See program advisor before choosing.

### Refrigeration and Air Conditioning

Associates in Technical Studies Degree Program: Code RAC

... The program is guided by an advisory committee consisting of journeymen\* and contractors and is offered...

\* The term journeyman is a term universally accepted to indicate a gender-neutral level of competence

## TECHNICAL EDUCATION/CONSTRUCTION INSTITUTE

WCC representatives are available to assist in the development of apprenticeship and other employee training programs. Trade Related Instruction can be provided for most apprenticeable classifications with a College representative working directly with the employer and employee to meet the requirements. Assistance is also provided, when requested, to coordinate activities with registering agencies such as the US Department Of Labor-Bureau of Apprenticeship and Training(BAT). The Trade Related Instruction program is approved by both the Bureau Of Apprenticeship and Training and the Michigan State Department Of Education.

### **Current apprenticeship programs include:**

Building Maintenance

...

### **... Courses are also available for:**

Management Personnel

Supervisors

Journeyman\*

Tradespersons (without Certificates)

Trainees and Journeyman\* Upgraders

Pre-Apprentices

Other employees seeking advancement

## **PROGRAMS OF STUDY**

### **ASSOCIATE IN TECHNICAL STUDIES**

Architectural Drafting

...

Journeyman\* Industrial

...

\* The term journeyman is a term universally accepted to indicate a gender-neutral level of competence

## **Personnel**

### **Faculty and Professional Staff**

...

Stegall, Patricia..... 1997

Coordinator of Construction Institute

A.D.- Washtenaw Community College

J.M.N.- United States Department of Labor

B.A.- Concordia College