

# LANSING COMMUNITY COLLEGE

## CURRICULUM GUIDE

Computer Science  
Associate in Science Degree

Curriculum Code: 0169 (Effective Fall 2008 – Summer 2013)

This degree is designed for students who intend to transfer to a four-year college or university to pursue a baccalaureate degree in this subject area. Students completing this curriculum will also satisfy the MACRAO Transfer Agreement between two-year and four-year institutions in Michigan. General education and subject area requirements vary from one college or university to another.

Prior to beginning this curriculum, students should contact the Counseling and Advising Center, Room 204, Gannon Building, telephone number (517) 483-1904, to consult with an academic advisor or counselor and obtain an appropriate transfer guide. They are also available on the web at [www.lcc.edu/transfer/guides](http://www.lcc.edu/transfer/guides). Students should also contact the school to which they will transfer for specific transfer institution requirements. (See *Transfer Information* for a list of institutions for which transfer guides are available.)

### PREREQUISITES

Students should see *Course Descriptions* or *Course Offerings* for course prerequisite information. See the *Assessment and Placement Testing* section for skills assessment and advising information.

### INFORMATION

Contact the Math and Computer Science Department, Arts and Sciences Building, Room 301, telephone number (517) 483-1087 (Website: [www.lcc.edu/mcs/](http://www.lcc.edu/mcs/)) or Counseling and Advising Center, Gannon Building, Room 204, telephone number (517) 483-1904.

### REQUIREMENTS

**TOTAL: 17 CREDITS**

CODE	TITLE	CREDIT HOURS
CPSC 231	Computing and Data Structures	4
CPSC 260	Computer Science Structures	4
MATH 253	Calculus III	4
PHYS 251	Physics I: Mechanics	5

### LIMITED CHOICE REQUIREMENTS

**TOTAL: 43-52 CREDITS**

Complete the indicated number of credits from **EACH CHOICE** listed below.

#### CHOICE 1: General Education MACRAO Requirements

**16 Credits**

(See *Transfer Information/MACRAO Transfer Agreement* for approved courses in each area.)

English Composition (see Note 2)	0
Science and Mathematics (see Note 1)	0
Social Science (see Note 3)	8
Humanities (see Note 3)	8

<b>CHOICE 2: General Education Core Requirements</b>	<b>0–8 Credits</b>
<i>(See General Education Core Requirements for information on how to fulfill these requirements. Core area proficiency exams, where appropriate, are available for each core area. Meeting Core with a proficiency test may require additional MACRAO credits.)</i>	
Communication Core Area (see Note 3)	0–4
Global Perspectives and Diversity Core Area (see Note 3)	0–4
Mathematics Core Area (see Note 1)	0
Science Core Area (see Note 1)	0
Writing Core Area (see Note 2)	0
 <b>CHOICE 3: Computer Science</b>	 <b>4 Credits</b>
CPSC 227    Algorithm & Computing w/Python	4
CPSC 230    Algorithms and Computing w/C++	4
 <b>CHOICE 4: Writing</b> (Complete one course from each subchoice)	 <b>8 Credits</b>
<b>Subchoice 4A</b>	
WRIT 121    Composition I	4
WRIT 131    Honors Composition I	4
 <b>Subchoice 4B</b>	
ENGL 122    Writ About Literature & Ideas	4
ENGL 132    Honors Writ–Literature & Ideas	4
WRIT 122    Composition II	4
WRIT 132    Honors Composition II	4
 <b>CHOICE 5: Mathematics</b> (Complete one course from each subchoice)	 <b>8 Credits</b>
<b>Subchoice 5A</b>	
MATH 151    Calculus I	4
MATH 161    Honors Calculus I	4
 <b>Subchoice 5B</b>	
MATH 152    Calculus II	4
MATH 162    Honors Calculus II	4
 <b>CHOICE 6: Related Courses</b>	 <b>7–8 Credits</b>
MATH 254    Intro to Differential Equation	3
MATH 260    Linear Algebra	3
PHYS 252    Physics II:Electrom/Wave/Optic	5
STAT 215    Intro to Probability and Stats	4
 <b>MINIMUM TOTAL</b>	 <b>60</b>

**NOTES:**

1. Students completing “REQUIREMENTS” and/or “LIMITED CHOICE REQUIREMENTS” have fulfilled the requirements for this Core area.
2. Students completing CHOICE 3 have fulfilled the requirements for these Core and MACRAO areas.
3. Certain Core courses may also be used to meet MACRAO requirements. See *Transfer Information/LCC Core–MACRAO Crosswalk* for suggested courses.

### **SUGGESTED COURSE SEQUENCE**

Students should see course descriptions to find out when departments plan to offer courses. Students who are unable to follow the course sequence suggested below (for example, those who are part-time, have transferred in courses from another school, or have prerequisites to fulfill) should contact an academic advisor or counselor for help with adjustments.

<b>I</b>	<b>II</b>	<b>III</b>
CPSC 227 or 230 MATH 151 or 161	CPSC 231 MATH 152 or 162 PHYS 251	CPSC 260 MATH 253