

<b>Macomb Community College: Associate of Applied Science (AAS) in Information Technology - Programming</b>	<b>Wayne State University: Bachelor of Science (BS) in Computer Science</b>
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*Articulated Program: Students who have declared this program on their student record are following a formal agreement between Wayne State University and Macomb Community College.*

<b>Macomb Community College - Before Transfer</b>	
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<b>Major Requirements</b>	<b>Minimum 64 Hrs</b>
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<b>Semester 1:</b>	
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BCOM 2050 - Business Communications <i>Satisfies MTA under this agreement only</i>	4
ITCS 1010 - Computer & Information Processing Principles	4
ITCS 1140 - Introduction to Program Design & Development	4
<i>GEN ED - Group I.A Satisfies MTA</i> ENGL 1180 - Communications 1 or ENGL 1210 - Composition 1	3-4

<b>Semester 2:</b>	
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BUSN 1010 - Business Enterprise	3
ITCS 1170 - Database Design & Implementation With SQL	4
ITWP 1000 - Introduction to Web Programming	3
<i>GEN ED - Group II Satisfies MTA</i> Take one (1) course from any of the following: ASTR, BIOL, CHEM, ESCI, ENVS, GEOL, MATH (1100 or above for MTA), PHSA, or PHYS <b>Recommended course for WSU's program: MATH 1760 (4cr)</b>	2-6

<b>C++ Track:</b> ITCS 2530 - C++ Programming 1	4
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<b>Semester 3:</b>	
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BCOM 2070 - Technical Business Communications & Project Management Principles	3
ITCS 2500 - Introduction to Mobile Development or ITCS 2520 - Introduction to Apple iOS Development	3
ITWP 1100 - Web Programming with JavaScript & Dynamic HTML	3
<i>GEN ED - Group IV Satisfies MTA</i> Take one (1) course from any of the following: Art, Creative Writing, Foreign Language, Humanities, INTL 2000, INTL 2300, INTL 2800, Literature, Music, or Philosophy	2-4

<b>C++ Track:</b> ITCS 2550 - C++ Programming 2	3
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<b>Semester 4:</b>	
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ITCS 2830 - Applications Implementation & Testing	4
ITCS 2700 - Data Structures or ITWP 2300 - Building Dynamic, Intelligent Web Based Solutions with ASP.NET	3-4
ITNT 1500 - Principles of Networking	4
ECHS 2330 - Early Childhood Practicum	3
<i>GEN ED - Group III (Satisfies MTA)</i> Take one (1) course from any of the following: Anthropology, Economics, Geography, History, INTL 2010, Political Science, Psychology, or Sociology	3-4

Additional Courses	25-32 Credits
MATH 1760 - Analytic Geometry & Calculus 1 <i>Satisfies MTA Requirement met if chosen in Semester 2</i>	(4)
PHYS 2220 - Analytical Physics 1 <i>Satisfies MTA</i>	5
PHYS 2230 - Analytical Physics 2 <i>Satisfies MTA (2nd Science course under this agreement only)</i>	5
MATH 1770 - Analytic Geometry & Calculus 2	4
MATH 2760 - Analytic Geometry & Calculus 3	4
MATH 2000 - Introduction to Linear Algebra	3
MATH 2200 - Discrete Mathematics	4
PRDE 2100 - Design Intent & Analysis <i>May be completed at MCC or WSU (BE 1200)</i>	(3)
<b>General Education--Michigan Transfer Agreement plan*</b> <i>Students who complete a Michigan Transfer Agreement (MTA or MACRAO) will have met the general education requirements for Wayne State University. Students who do not complete a Michigan Transfer Agreement will have additional requirements. See a Macomb counselor or academic advisor for specific MTA courses and requirements or visit: <a href="http://www.macomb.edu/transfer">www.macomb.edu/transfer</a>.</i>	<b>Minimum 30 Hrs</b>
<b>Basic Composition:</b> ENGL 1180 or ENGL 1210 and ENGL 1190 or ENGL 1220 <i>Substituted with BCOM 2050 under this agreement only</i>	-
<b>Mathematics--1 course:</b> MATH 1100, MATH 1340, MATH 1360, MATH 1370, MATH 1415, MATH 1435, MATH 1465, MATH 1760, MATH 1770, MATH 2000, MATH 2200, MATH 2760, or MATH 2770	-
<b>Humanities &amp; Fine Arts-- 1 course needed from a subject area not selected in Semester 3, Group IV:</b> any ARAB, any CHIN, any FREN, any GRMN, any ITAL, any SPAN (except SPAN 1265), ARTT 1620, ARTT 1625, ARTT 2650, ARTT 2660, ENGL 1730, ENGL 2410, ENGL 2420, ENGL 2510, ENGL 2520, ENGL 2600, ENGL 2610, ENGL 2640, ENGL 2710, ENGL 2720, ENGL 2730, ENGL 2740, ENGL 2800, ENGL 2810, ENGL 2850, any HUMN, INTL 2000, INTL 2300, INTL 2800, MUSC 1030, MUSC 1040, MUSC 1050, MUSC 1060, MUSC 1070, MUSC 1160, MUSC 1170, MUSC 2080, MUSC 2180, MUSC 2710, MUSC 2720, or any PHIL	3-4
<b>Sciences--2 courses needed from different subject areas, with one course containing a lab</b> <b>1 course from:</b> BIOL 1000, BIOL 1010, BIOL 1310, BIOL 2400, BIOL 2540, BIOL 2710, BIOL 2730, CHEM 1000, CHEM 1050, CHEM 1060, CHEM 1170, CHEM 1180, CHEM 2260, CHEM 2270, CHEM 2280, ESCI 1210, GEOL 1140, GEOL 1150, PHSA 1050, PHYS 1180, PHYS 1190, PHYS 2220 or PHYS 2230 <b>And 1 additional course from a different science area:</b> any ASTR, any BIOL, any CHEM, any ENVS, any ESCI, any GEOL, any PHSA, or any PHYS	-
<b>Social Sciences--1 course needed from a subject area not selected in Semester 4, Group III:</b> any ANTH, any ECON, any GEOG, any HIST, INTL 2010, any POLS, PSYC, or any SOCY	3-4
If needed, complete an additional course(s) from the applicable general education categories above to reach the minimum 30 MTA required credit hours	-

**Wayne State University Coursework - After Transfer:**

<b>Wayne State University Coursework - After Transfer:</b>	
<b>Major Requirements</b>	<b>44 Hrs</b>
BE 1200 - Basic Engineering I: Design in Engineering <i>May be completed at WSU or MCC (PRDE 2100)</i>	(3)
BE 1600 - Introduction to Programming and Computation: Python	3
BE 2100 - Basic Engineering III: Probability and Statistics in Engineering	3
CSC 2200 - Computer Science II	3
CSC 2201 - Laboratory for Computer Science II	1
CSC 3010 - Ethics in Computer Science	3
CSC 3020 - Java Programming	3
CSC 3100 - Architecture and Organization	3
CSC 3101 - Laboratory for Architecture	1
CSC 3110 - Algorithm Design and Analysis	3
CSC 4110 - Software Engineering	3
CSC 4111 - Laboratory for Software Engineering	1
CSC 4420 - Computer Operating Systems	3
CSC 4421 - Laboratory for Operating Systems	1
CSC 4500 - Intro to Theoretical Computer Science	3
CSC 4710 - Introduction to Database Management	3
CSC 4996 - Senior Project and Computer Ethics	3
CSC 4997 - Laboratory for Senior Project	1
ENG 3060 - Technical Communication II	3
<b>Maximum Macomb Credits = 91</b>	<b>Minimum credits at Wayne State University = 44</b>
<b>Minimum credits for Bachelor of Science in Computer Science - 120 credit hours</b>	

**Important Information:**

1. All content is for informational purposes and is designed to be used as a tool to assist students with transfer information but should not be used for self-advising. Some courses may include prerequisite requirements that are not listed in this guide. Consult with your advisor for details.
2. When pursuing a Macomb degree work closely with a Macomb and Wayne State University advisor to ensure BOTH the Macomb and Wayne State University degree requirements are being met.
3. A minimum cumulative 2.50 GPA or better is required for admission. If you have an associate degree, you may be admitted with a 2.0 or better.
4. Transfer credit limits vary by each transfer college and major. This transfer guide may contain more than the maximum number of allowable transfer credits Wayne State University will accept.
5. Macomb and Wayne State University reserve the right to make any necessary changes to courses, provisions, or transfer requirements without notice.
6. It is the responsibility of the student to be aware of changes that affect their transfer program. Students are strongly encouraged to contact Wayne State University on an annual basis to review their program requirements.
7. Students may concurrently be enrolled and taking courses at both Macomb and Wayne State University the same semester after completing the minimum requirements for Wayne State University. Meet with an academic advisor or counselor for additional information.
8. If you decide to transfer before graduating from Macomb you may be eligible to earn your associate degree after the fact.  
[www.macomb.edu/transfer](http://www.macomb.edu/transfer)
9. Please contact Wayne State University at 313-577-2477 to schedule an appointment, or to view additional information visit:  
[Wayne State University-Macomb University Center](http://Wayne State University-Macomb University Center)
14. Please contact Colleen McKenney, Computer Science advisor, at [colleen.mckenney@wayne.edu](mailto:colleen.mckenney@wayne.edu) for course and transfer information, or visit:  
[www.engineering.wayne.edu](http://www.engineering.wayne.edu)