

**Macomb Community College:**  
Suggested:  
Associate of General Studies (AGS)

**Oakland University:**  
Bachelor of Science (BS)  
Computer Science

**Macomb Community College -- Before Transfer**

<b>Major Requirements:</b>	<b>40 Hrs</b>
ITCS 1170: Database Design & Implementation with SQL & XML	4
ITCS 2590: Java 1	4
ITNT 1500: Principles of Networking	4
ITNT 2130: Network Design 1	3
MATH 1760: Analytic Geometry & Calculus 1	4
MATH 1770: Analytic Geometry & Calculus 2	4
MATH 2000: Introduction to Linear Algebra	3
MATH 2200: Discrete Mathematics	4
PHYS 2220: Analytical Physics 1	5
PHYS 2230: Analytical Physics 2	5
<b>Potential Electives (with advisor approval):</b>	<b>7-8 Hrs</b>
ITCS 2530: C++ Programming 1 <b>or</b> ITCS 2250: Advanced C# Programming	3-4
BIOL 1000: General Biology 1 <b>or</b> CHEM 1170: General Chemistry 1	4
<b>General Education Requirements:</b> Note: Students who complete a Michigan transfer agreement (MTA or MACRAO) will satisfy Oakland University's general education requirement. Meet with a Macomb academic advisor or counselor for specific MTA courses and requirements or visit: <a href="http://macomb.edu/transfer">macomb.edu/transfer</a>	<b>25-31 Hrs</b>
<b>1. Writing Foundations – 2 courses or MTA Endorsement:</b> ENGL 1180 <b>or</b> ENGL 1210 <b>and</b> ENGL 1190 <b>or</b> ENGL 1220	6-8
<b>2. Formal Reasoning – 1 course or MTA Endorsement:</b> Satisfied by Major (MATH 1760)	-
<b>3. Arts – 1 course or MTA Endorsement:</b> ARTT 2650, 2660; HIST 2340; HUMN 1210, <b>1270</b> , 1300, <b>1460</b> ; MUSC 1030, 2710, 2720	3-4
<b>4. Foreign Language and Culture – 1 course or MTA Endorsement:</b> ARAB; CHIN; FREN; GRMN; ITAL; SPAN (except SPAN 1265)	4
<b>5. Global Perspectives – 1 course or MTA Endorsement:</b> ANTH 1000; ECON 2110; GEOG 2000; HIST 2520, 2650; HUMN 1700; INTL 2000, 2010, 2500, 2700, 2800; POLS 1600	3-4
<b>6. Literature – 1 course or MTA Endorsement:</b> ENGL 1730, 2510, 2520, 2610, 2710, 2720, 2730, 2800, 2810, 2850; HUMN 1750	3
<b>7. Natural Science and Technology – 1 course or MTA Endorsement:</b> Satisfied by Major (PHYS 2220)	-
<b>8. Social Science – 1 course or MTA Endorsement:</b> ANTH 1000; ECON 1160, 1170, 2110; POLS <b>1000</b> , 1600; PSYC 1010; SOCY <b>1010</b>	3-4
<b>9. Western Civilization – 1 course or MTA Endorsement:</b> Satisfied by Major (at Oakland University)	-
<b>10. Knowledge Applications:</b> Satisfied by Major (MATH 1770 or PHYS 2230)	3-4
<b>U.S. Diversity – 1 course or MTA Endorsement:</b> One course ( <b>bolded</b> ) may be satisfied when completed from the above 1-10 categories: HIST 2100, 2200; HUMN 1270, 1460; POLS 1000; SOCY 1010, 2550	-
<b>Capstone &amp; Writing Intensive in the Major:</b> These general education requirements must be completed at Oakland University.	-

<b>Oakland University -- After Transfer</b>	
<b>Computer Science Core:</b>	<b>18-22 Hrs</b>
STA 2226: Applied Probability and Statistics	4
EGR 2400: Introduction to Electrical and Computer Engineering	4
CSI 2300: Object-Oriented Computing ( <i>if ITCS 2590 is not completed at Macomb</i> )	0-4
CSI 2310: Data Structures	4
CSI 2999: Sophomore Project	2
CSI 3640: Computer Organization	4
<b>Required Professional Subjects:</b>	<b>32 Hrs</b>
CSI 2470: Introduction to Computer Networks	4
CSI 3610: Design and Analysis of Algorithm	4
CSI 3350: Programming Languages	4
CSI 3370: Software Engineering and Practice	4
CSI 3430: Theory of Computation	4
CSI 3450: Database Design and Implementation	4
CSI 4500: Fundamentals of Operating Systems	4
CSI 4999: Senior Capstone Project	4
<b>Professional Training:</b>	<b>4 Hrs</b>
CSI 4950: Internship <b>or</b> CSI 4999: Undergraduate Research	
<b>Complete One of the following Professional Tracks:</b>	<b>8 Hrs</b>
<b>Computational Intelligence Track:</b> CSI 5130; CSI 5810	
<b>System Administration Track:</b> CSI 3660; CSI 4780	
<b>Bioinformatics Track:</b> BIO 3400; CSI 4780	
<b>Computer Security Track:</b> CSI 4480; MTH 4772	
<b>Electives (with advisor approval):</b>	<b>6 Hrs</b>
Any one of the following 2000-level courses: CSI 2320, CSI 2330, CSI 2340, CSI 2350	
Any one of the following 5000-level courses (with departmental approval): CSI 5220, CSI 5380, CSI 5420, CSI 5490, CSI 5550, CSI 5810, CSI 5830	
Any math or science elective from the following courses: APM 2555, APM 3332, APM 4333, APM 4334, APM 4663, APM 4777; BIO 1200 ( <i>if BIOL 1000 is not completed at Macomb</i> ); CHM 1430; MTH 3552; MOR 2442; PHY 3250, PHY 3260, PHY 3310, PHY 3660, PHY 3710; or other courses that are approved by petition to the SECS Committee on Academic Standing.	
<b>Maximum credits at Macomb = 64</b>	<b>Minimum credits at Oakland University = 64</b>
<i>Minimum credits for the Bachelor of Science in Computer Science = 128</i>	

**Important Information:**

- 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.
- Associate degree requirements are not included on this transfer plan. When pursuing a Macomb degree, work closely with a Macomb academic and Oakland University advisor or counselor to ensure BOTH the Macomb and Oakland University degree requirements are being met.
- Transfer credit limits vary by each transfer college and major. This transfer plan may contain more than the maximum number of allowable transfer credits Oakland University will accept.
- Macomb and Oakland University reserve the right to make any necessary changes to courses, provisions, or transfer requirements without notice.
- It is the responsibility of the student to be aware of changes that affect their transfer plan. Students are strongly encouraged to contact Oakland University on an annual basis to review program requirements.
- For further information, please contact Oakland University located at the Macomb University Center at 586.263.6242 to schedule an appointment with an Oakland University academic advisor, or visit: [Macomb University Center - Oakland University](#)
- This program is also offered at Oakland University's main campus. For additional information, please view the recommended program guide: [Bachelor of Science with a major in Computer Science](#) or contact the [School of Engineering and Computer Science](#).

*Effective Date: 2017/2018 catalog and updated on the Macomb transfer plan June 2017*