

Articulation Agreement
Between
Wayne State University and Macomb Community college
Linking MCC's
AAS in Information Technology - Programming
With Wayne State's
Bachelor of Science or Bachelor of Arts in
Computer Science or Information Systems Technology

Curriculum Requirements

The program has two components: the MCC component and WSU component. The detailed description and course sequences in each component are listed as follows:

- (1) **Macomb Community College Component – AAS in Information Technology – Programming and the MACRAO Agreement**
- (2) **Wayne State University Component – BA or BS in Computer Science, or BA in Information Systems Technology**

This articulated plan of study combines completion of an Association of Applied Science degree in Information Technology – Programming and the MACRAO General Education certification from MCC.

MCC AAS: Information Technology – Programming to WSU BA in Computer Science

Macomb Coursework—Before Transfer:

General Education & Competency Requirements 33 - 37 Hrs

Basic Composition: ENGL 1180 – Communications 1 or ENGL 1210 – Composition 1 **3-4**

Intermediate Composition: ENGL 1190 – Communications 2 or ENGL – Composition 2 **3-4**

Mathematics: MATH 1460 – Pre-Calculus **4**

Social Science (Select 2): GEOG 2000, ANTH 1000, ECON 1160, ECON 1170, SOCY 1010, SOCY 1100 **6-8**

Humanities: HUMN 1750 **3**

Foreign Language: FREN 2360, GRMN 2360, ITAL 2360, SPAN 2360 **4**

Life Science: BIOL 1000*, 1400, 2400*; ENV5 1050; NATS 1200*, 1310*; PSYC 1010 **4**

Physical Science: ASTR 1030 + 1040, CHEM 1050*, CHEM 1170*, GEOL 1140*, NATS 1210*, PHSA 1050*, PHYS 1180*, PHYS 2220* **4**

PHED Any course **2**

*Course meets laboratory science requirement. One Life Science or Physical Science is required to be a laboratory course.

Core Requirements 49-51 Hrs

MATH 1760: Analytical Geometry & Calculus 1 **4**

BCOM 2050: Business Communications **4**

ITCS 1010: Computer & Information Processing Principles **4**

Or ITCS 2335: Foundations of Business Information Technology **4**

ITCS 1130: Introduction to Program Design & Development **3**

ITWP 1000: Introduction to Web Programming **3**

ITCS 1230: Visual Basic Programming 4
Or ITCS 2590: Java 1 4
ITCS 1170: Database Design & Implementation with SQL & SML 4
ITCS 2530: C++ Programming 1 4
BCOM 2070: Technical Business Communications & Project Management Principles 3
ITWP 2300: Building Dynamic, Intelligent Web Based Solutions with ASPNET 3
ITCS 2830: Applications Implementation & Testing 4
Select one:
ITCS 2000 Game Programming in Direct X with C++ 4
ITCS 2220 Advanced Visual Basic 3
ITCS 2550 C++ Programming 2 3
ITCS 2620 Java 2 3
Select two:
ACCT 1080 Principles of Accounting 1 4
BCOM 2060 Advanced Business Communications 3
BUSN 1010 Introduction to Business 3
MGMT 1010 Principles of Management 3

MCC AAS: Information Technology – Programming to WSU BA in Computer Science

WSU Coursework—After Transfer:

Major Requirements 37 Hrs

MAT 2210: Elementary Probabilities and Statistics 4
CSC 1500: Fundamental Structures in Computer Science 3
CSC 1501: Laboratory for Fundamental Structures in Computer Science 1
CSC 2200: Data Structures and Algorithm Analysis 3
CSC 2201: Laboratory for Data Structures and Algorithm Analysis 1
CSC 3100: Computer Organization and Architecture 3
CSC 3101: Laboratory for Computer Organization and Architecture 1
CSC 4100: Introduction to Software Engineering 3
CSC 4101: Laboratory for Introduction to Software Engineering 1
CSC 4420: Operating Systems 3
CSC 4221: Laboratory for Operating Systems 1
CSC 4996: Senior Project and Computer Ethics 3
CSC 4997: Senior Project Lab 1
Three additional CSC electives of at least three credits each, all numbered at or above 3000, excluding CSC 4990 and 4995 9

Maximum Macomb Credits = 82 Minimum WSU Credits = 37

Total Credits required for Bachelor of Arts in Computer Science = 120

Note: A grade of C- or better is required for Core Requirements to transfer. This guide and its requirements are subject to change and should be used in consultation with an academic advisor.

MCC AAS: Information Technology – Programming to WSU BS in Computer Science

Macomb Coursework—Before Transfer:

General Education & Competency Requirements 33 - 37 Hrs

Basic Composition: ENGL 1180 – Communications 1 or ENGL 1210 – Composition 1 **3-4**

Intermediate Composition: ENGL 1190 – Communications 2 or ENGL – Composition 2 **3-4**

Mathematics: MATH 1460 – Pre-Calculus **4**

Social Science (Select 2): GEOG 2000, ANTH 1000, ECON 1160, ECON 1170, SOCY 1010, SOCY 1100 **6-8**

Humanities: HUMN 1750 **3**

Foreign Language: FREN 2360, GRMN 2360, ITAL 2360, SPAN 2360 **4**

Life Science: BIOL 1000*, 1400, 2400*; ENVS 1050; NATS 1200*, 1310*; PSYC 1010 **4**

Physical Science: ASTR 1030 + 1040, CHEM 1050*, CHEM 1170*, GEOL 1140*, NATS 1210*, PHSA 1050*, PHYS 1180*, PHYS 2220* **4**

PHED Any course **2**

*Course meets laboratory science requirement. One Life Science or Physical Science is required to be a laboratory course.

Core Requirements 56-58 Hrs

MATH 1760: Analytic Geometry & Calculus 1 **4**

MATH 1770: Analytic Geometry & Calculus 2 **4**

MATH 2000: Introduction to Linear Algebra **3**

BCOM 2050: Business Communications **4**

ITCS 1010: Computer & Information Processing Principles **4**

Or ITCS 2335: Foundations of Business Information Technology **4**

ITCS 1130: Introduction to Program Design & Development **3**

ITWP 1000: Introduction to Web Programming **3**

ITCS 1230: Visual Basic Programming **4**

Or ITCS 2590: Java 1 **4**

ITCS 1170: Database Design & Implementation with SQL & SML **4**

ITCS 2530: C++ Programming 1 **4**

BCOM 2070: Technical Business Communications & Project Management Principles **3**

ITWP 2300: Building Dynamic, Intelligent Web Based Solutions with ASPNET **3**

ITCS 2830: Applications Implementation & Testing **4**

Select one:

ITCS 2000 Game Programming in Direct X with C++ **4**

ITCS 2220 Advanced Visual Basic **3**

ITCS 2550 C++ Programming 2 **3**

ITCS 2620 Java 2 **3**

Select two:

ACCT 1080 Principles of Accounting 1 **4**

BCOM 2060 Advanced Business Communications **3**

BUSN 1010 Introduction to Business **3**

MGMT 1010 Principles of Management **3**

MCC AAS: Information Technology – Programming to WSU BS in Computer Science

WSU Coursework—After Transfer:

Major Requirements 40 Hrs

MAT 2210: Elementary Probabilities and Statistics 4

CSC 1500: Fundamental Structures in Computer Science 3

CSC 1501: Laboratory for Fundamental Structures in Computer Science 1

CSC 2200: Data Structures and Algorithm Analysis 3

CSC 2201: Laboratory for Data Structures and Algorithm Analysis 1

CSC 3100: Computer Organization and Architecture 3

CSC 3101: Laboratory for Computer Organization and Architecture 1

CSC 3110: Algorithm Design and Analysis 3

CSC 4100: Introduction to Software Engineering 3

CSC 4101: Laboratory for Introduction to Software Engineering 1

CSC 4420: Operating Systems 3

CSC 4421: Laboratory for Operating Systems 1

CSC 4500: Introduction to Theoretical Computer Science 3

CSC 4996: Senior Project and Computer Ethics 3

CSC 4997: Senior Project Lab 1

Two additional CSC electives of at least three credits each, all numbered at or above 3000, excluding CSC 4990 and 4995 6

Maximum Macomb Credits = 89 Minimum WSU Credits = 40

Total Credits required for Bachelor of Science in Computer Science = 129

Note: A grade of C- or better is required for Core Requirements to transfer. This guide and its requirements are subject to change and should be used in consultation with an academic advisor.

MCC AAS: Information Technology – Programming to WSU BA in Information Systems Technology

Macomb Coursework—Before Transfer:

General Education & Competency Requirements 33 - 37 Hrs

Basic Composition: ENGL 1180 – Communications 1 or ENGL 1210 – Composition 1 **3-4**

Intermediate Composition: ENGL 1190 – Communications 2 or ENGL – Composition 2 **3-4**

Mathematics: MATH 1460 – Pre-Calculus **4**

Social Science: GEOG 2000, ANTH 1000, ECON 1170, SOCY 1010, SOCY 1100 **3-4**

Social Science: ECON 1160 **3**

Humanities: HUMN 1750 **3**

Foreign Language: FREN 2360, GRMN 2360, ITAL 2360, SPAN 2360 **4**

Life Science: BIOL 1000*, 1400, 2400*; ENV5 1050; NATS 1200*, 1310*; PSYC 1010 **4**

Physical Science: ASTR 1030 + 1040, CHEM 1050*, CHEM 1170*, GEOL 1140*, NATS 1210*, PHSA 1050*, PHYS 1180*, PHYS 2220* **4**

PHED Any course **2**

*Course meets laboratory science requirement. One Life Science or Physical Science is required to be a laboratory course.

Core Requirements 50-51 Hrs

MATH 1760: Analytical Geometry & Calculus 1 **4**

BCOM 2050: Business Communications **4**

ITCS 1010: Computer & Information Processing Principles **4**

Or ITCS 2335: Foundations of Business Information Technology **4**

ITCS 1130: Introduction to Program Design & Development **3**

ITWP 1000: Introduction to Web Programming **3**

ITCS 1230: Visual Basic Programming **4**

Or ITCS 2590: Java 1 **4**

ITCS 1170: Database Design & Implementation with SQL & SML **4**

ITCS 2530: C++ Programming 1 **4**

BCOM 2070: Technical Business Communications & Project Management Principles **3**

ITWP 2300: Building Dynamic, Intelligent Web Based Solutions with ASPNET **3**

ITCS 2830: Applications Implementation & Testing **4**

Select one:

ITCS 2000 Game Programming in Direct X with C++ **4**

ITCS 2220 Advanced Visual Basic **3**

ITCS 2550 C++ Programming 2 **3**

ITCS 2620 Java 2 **3**

ACCT 1080: Principles of Accounting 1 **4**

MGMT 1010: Principles of Management **3**

MCC AAS: Information Technology – Programming to WSU BA in Information Systems Technology

WSU Coursework—After Transfer:

Major Requirements 42 Hrs

MAT 2210: Elementary Probabilities and Statistics 4
CSC 1500: Fundamental Structures in Computer Science 3
CSC 1501: Laboratory for Fundamental Structures in Computer Science 1
CSC 2200: Data Structures and Algorithm Analysis 3
CSC 2201: Laboratory for Data Structures and Algorithm Analysis 1
CSC 3100: Computer Organization and Architecture 3
CSC 3101: Laboratory for Computer Organization and Architecture 1
CSC 3750: Introduction to Web Technology 3
CSC 4100: Introduction to Software Engineering 3
CSC 4101: Laboratory for Introduction to Software Engineering 1
CSC 4420: Operating Systems 3
CSC 4221: Laboratory for Operating Systems 1
CSC 4500: Introduction to Theoretical Computer Science 3
CSC 4710: Information Systems Design 3
CSC 4996: Senior Project and Computer Ethics 3
CSC 4997: Senior Project Lab 1
CSC 5750: Principles of Web Technology 3

Note: Business course requirements met through AAS requirements at MCC.

Maximum Macomb Credits = 83 Minimum WSU Credits = 42

Total Credits required for Bachelor of Arts in Information Systems Design = 125

Note: A grade of C- or better is required for Core Requirements to transfer. This guide and its requirements are subject to change and should be used in consultation with an academic advisor.