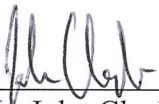# Transfer Agreement
Between
Oklahoma City Community College
And
University of Central Oklahoma
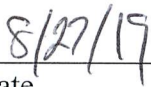
Effective Academic Year: 2019-2020

Associate in Science Degree - Computer Science

And
Bachelor of Science -Computer Science - Computer Science
Bachelor of Science - Computer Science-Applied
Bachelor of Science in Computer Science - Information Science
Bachelor of Science – Software Engineering

Mr. John Claybon, Dean
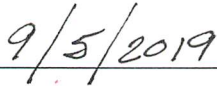Business and Information Technology

8/27/19
Date

Ms. Kim Jameson
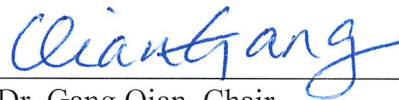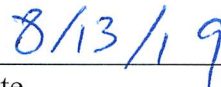Associate Vice President for Academic Affairs

9/4/19
Date

Mr. Greg Gardner
Vice President for Academic Affairs

9/5/2019
Date

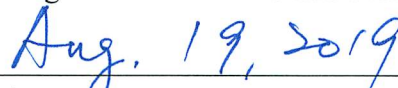Dr. Gang Qian, Chair
Department of Computer Science

8/13/19
Date

Dr. Wei Chen, Dean
College of Mathematics and Science

Aug. 19, 2019
Date

Dr. John Barthell, Provost
Vice President for Academic Affairs

8-21-19
Date

Transfer Agreement

Oklahoma City Community College: AS - Computer Science
And
University of Central Oklahoma: BS - Computer Science

To comply with this agreement, students must complete the associate's degree with the major listed above and include the specific courses listed below.

Courses listed here are required for the agreement. Credited courses completed as part of the AA or AS that do not apply to the general education at OCCC or the UCO major transfer to UCO as electives.

OCCC	UCO
General Education requirements	University Core completed with AA or AS
^CS 1143 Beginning Programming	^CMSC 1513 Beginning Programming
^MATH 1533 Pre-Calculus	^MATH 1533 Precalculus-Algebra
^MATH 1613 Trigonometry	^MATH 1593 Plane Trigonometry
CS 2163 JAVA	CMSC 1613 Programming I
CS 2363 C++	CMSC 2613 Programming II
MATH 2104 Calculus and Analytic Geometry I	MATH 2313 Calculus 1
MATH 2214 Calculus and Analytic Geometry II	MATH 2323 Calculus 2
MATH 2314 Calculus and Analytic Geometry III	MATH 2333 Calculus 3
CHEM 1115 General Chemistry I **OR**	CHEM 1103 General Chem I and CHEM 1112 **OR**
PHYS 1114 College Physics I **OR**	PHY 1114 General Physics I and Laboratory **OR**
PHYS 2014 Engineering Physics I	PHY 2014 Physics for Science & Engineering I And Lab

^UCO lists the following for this program: Students majoring in Computer Science are encouraged to complete the following courses in high school: Advanced Placement High School Programming Course **OR** CMSC 1513 Beginning Programming. MATH 1533 Precalculus-Algebra **OR** Placement Score **AND** MATH 1593 Plane Trigonometry **OR** Placement Score.

This degree requires additional course work, including the general education, as stated in the OCCC Catalog. Other OCCC courses may or may not apply to the UCO major. That specific information can be found on the UCO website under the Online Transfer Guides.

Total at Oklahoma City Community College...61-64

To be taken at the University of Central Oklahoma....................................60-63

(May be taken at OCCC.) This signifies that a UCO course requirement can be met with the equivalent OCCC course (found on the UCO website). To take this course at OCCC, the student should confirm that it will fit into the associate's degree without exceeding the requirements. A minimum of 60 hours must be taken at a baccalaureate granting institution, so exceeding 64 credit

hours at the community college means the student will exceed the minimum of 124 credit hour total. A minimum of 40 hours of 3/4000 level courses are required for the baccalaureate. Courses from community colleges are 1/2000 level.

Major Requirements

Computer Science 61
Required..45

^	CMSC	1621	Programming I Laboratory
^	CMSC	2123	Discrete Structures
^	CMSC	2621	Programming II Laboratory
^	CMSC	2833	Computer Organization I
^	SE	3103	Object Oriented Software Design and Construction
^	CMSC	3613	Data Structures and Algorithms
^	CMSC	3833	Computer Organization II
^	CMSC	4003	Applications of Database Management Systems
^	CMSC	4023	Programming Languages **OR**
^	CMSC	4173	Translator Design
^	CMSC	4153	Operating Systems
^	CMSC	4273	Theory of Computing
^	SE	4283	Software Engineering I
^	CMSC	4323	Computer and Network Security
^	CMSC	4401	Ethics in Computing
^*	CMSC	4513	Software Design and Development
^	MATH	3143	Linear Algebra
^	STAT	2113	Statistical Methods **OR (May be taken at OCCC.)**
^	STAT	2103	Introduction to Statistics for Sciences **OR**
^	STAT	4113	Mathematical Statistics I

^ A grade of 'C' or better must be earned in all required CMSC, SE, MATH, and STAT courses.

* CMSC 4513 is recommended to be taken in the last semester prior to graduation.

Elective CMSC or SE courses...16
(OCCC CS 2453 may be applied in this area. OCCC CS 2563, 2553, or 2463 also may be applied.)
  Select from the following:
    Any 3/4000 level CMSC or SE courses
    6 hours of CMSC or SE electives may be taken at the 2000 level

SE 4513 may not be used to satisfy the CMSC or SE elective requirement.

No more than four (4) hours of Internship and Individual Study combined may be used to satisfy the CMSC or SE elective requirement.

Credit cannot be received for both CMSC 3303 and SE 4283.
Electives to bring total to...124

Minimum Grade Requirements
Average in (a) all college course work, (b) course work at UCO, and (c) major courses...........2.00

Program-to-Program Transfer policies are available in the Introduction for Program-to-Program Agreements on the UCO website at the top of the list of agreements. Links to the agreements can be found on the Academic Affairs or Transfer Student Support web pages.

Transfer Agreement

Oklahoma City Community College: AS - Computer Science

And

University of Central Oklahoma: BS - Computer Science – Applied

To comply with this agreement, students must complete the associate's degree with the major listed above and include the specific courses listed below.

Courses listed here are required for the agreement. Credited courses completed as part of the AA or AS that do not apply to the general education at OCCC or the UCO major transfer to UCO as electives.

OCCC	UCO
General Education requirements	University Core completed with AA or AS
^CS 1143 Beginning Programming	^CMSC 1513 Beginning Programming
^MATH 1533 Pre-calculus	^MATH 1533 Precalculus-Algebra
^MATH 1613 Trigonometry	^MATH 1593 Plane Trigonometry
MATH 2104 Calculus and Analytic Geometry I	MATH 2313 Calculus 1
MATH 2214 Calculus and Analytic Geometry II	MATH 2323 Calculus 2
CS 2163 JAVA	CMSC 1613 Programming I
CS 2453 Visual Basic	CMSC 2413 Visual Programming
CS 2363 C++	CMSC 2613 Programming II

^UCO lists the following for this program: Students majoring in Computer Science-Applied are encouraged to complete the following courses in high school: Advanced Placement High School Programming Course **OR** CMSC 1513 Beginning Programming. MATH 1533 Precalculus-Algebra **OR** Placement Score **AND** MATH 1593 Plane Trigonometry **OR** Placement Score.

This degree requires additional course work, including the general education, as stated in the OCCC Catalog. Other OCCC courses may or may not apply to the UCO major. That specific information can be found on the UCO website under the Online Transfer Guides.

Total at Oklahoma City Community College...61-64

To be taken at the University of Central Oklahoma......................................62-63

(May be taken at OCCC.) This signifies that a UCO course requirement can be met with the equivalent OCCC course (found on the UCO website). To take this course at OCCC, the student should confirm that it will fit into the associate's degree without exceeding the requirements. A minimum of 60 hours must be taken at a baccalaureate granting institution, so exceeding 64 credit hours at the community college means the student will exceed the minimum of 124 credit hour total. A minimum of 40 hours of 3/4000 level courses are required for the baccalaureate. Courses from community colleges are 1/2000 level.

Major Requirements

Computer Science – Applied...45
Required...33

^ CMSC	1621	Programming I Laboratory
^ CMSC	2123	Discrete Structures
^ CMSC	2621	Programming II Laboratory
^ CMSC	2833	Computer Organization I
^ SE	3103	Object Oriented Software Design and Construction
^ CMSC	3303	Systems Analysis and Design **OR**
^ SE	4283	Software Engineering I
^ CMSC	3613	Data Structures and Algorithms
^ CMSC	4003	Applications of Database Management Systems
^ CMSC	4023	Programming Languages **OR**
^CMSC	4173	Translator Design
^ CMSC	4153	Operating Systems
^ CMSC	4401	Ethics in Computing
^*CMSC	4513	Software Design and Development
^ STAT	2113	Statistical Methods **OR** **(May be taken at OCCC.)**
^ STAT	2103	Introduction to Statistics for Sciences **OR**
^ STAT	4113	Mathematical Statistics I

^ A grade of 'C' or better must be earned in all required CMSC, SE, MATH, and STAT courses.

* CMSC 4513 is recommended to be taken in the last semester prior to graduation.

Elective CMSC or SE courses.. 12
    Any 3/4000 level CMSC or SE courses except SE 4513

No more than three (3) hours of Internship and Individual Study combined may be used to satisfy the CMSC or SE elective requirement.

Credit cannot be received for both CMSC 3303 and SE 4283.

Applied Area of Study......................................18

Minor
The student will complete a minor; if the student is completing a second Bachelor's degree, the first degree's major will satisfy the requirements for the minor.

OR

Second Major
The student will complete a second major.

OR

Associate degree or comparable concentration in an information technology-related discipline transferred from a regionally accredited two- or four-year college or international equivalent with the approval of the Computer Science Department.

If less than 18 hours are transferred under this category, the student should take 2/3/4000 level CMSC electives to make up the difference. A student may take additional CMSC 3/4000 electives to bring the total hours of upper-division courses to 40.

Electives to bring total to...124

Minimum Grade Requirements

Average in (a) all college course work, (b) course work at UCO, and (c) major courses..........................2.00

* A student may take additional CMSC 3/4000 courses to bring the total hours of upper-division courses to 40.

Students must meet all bachelor degree requirements at UCO to include minimums of:
40 hours of upper division coursework
30 hours in residence at UCO
15 of the last 30 hours must be taken in residence at UCO
60 hours from baccalaureate granting institutions

For other regulations pertaining to graduation, see the UCO Undergraduate Catalog.

Program-to-Program Transfer policies are available in the Introduction for Program-to-Program Agreements on the UCO website at the top of the list of agreements. Links to the agreements can be found on the Academic Affairs or Transfer Student Support web pages.

Transfer Agreement
Oklahoma City Community College: AS - Computer Science
And
University of Central Oklahoma: BS- Computer Science – Information Science

To comply with this agreement, students must complete the associate's degree with the major listed above and include the specific courses listed below.

Courses listed here are required for the agreement. Credited courses completed as part of the AA or AS that do not apply to the general education at OCCC or the UCO major transfer to UCO as electives.

OCCC	UCO
General Education requirements	University Core completed with AA or AS
^CS 1103 Introduction to Computers and Applications	^CMSC 1053 Prof Comp App and Prob Solving
^CS 1143 Beginning Programming	^CMSC 1513 Beginning Programming
^MATH 1533 Pre-calculus	^MATH 1533 Precalculus-Algebra
^MATH 1613 Trigonometry	^MATH 1593 Plane Trigonometry
MATH 2104 Calculus and Analytic Geometry I	MATH 2313 Calculus 1
MATH 2214 Calculus and Analytic Geometry II	MATH 2323 Calculus 2
CS 2163 JAVA	CMSC 1613 Programming I
CS 2453 Visual Basic	CMSC 2413 Visual Programming
CS 2363 C++	CMSC 2613 Programming II

^ UCO lists the following for this program: Students majoring in Computer Science-Information Science are encouraged to complete the following courses in high school: A high school computer technology course using a word processor, spreadsheet, e-mail, browser, and search engines **OR** CMSC 1053 Professional Computer Applications and Problem Solving. Advanced Placement High School Programming Course **OR** CMSC 1513 Beginning Programming. MATH 1533 Precalculus-Algebra **OR** Placement Score **AND** MATH 1593 Plane Trigonometry **OR** Placement Score.

This degree requires additional course work, including the general education, as stated in the OCCC Catalog. Other OCCC courses may or may not apply to the UCO major. That specific information can be found on the UCO website under the Online Transfer Guides.

Total at Oklahoma City Community College...61-64

To be taken at the University of Central Oklahoma.....................................66

(May be taken at OCCC.) This signifies that a UCO course requirement can be met with the equivalent OCCC course (found on the UCO website). To take this course at OCCC, the student should confirm that it will fit into the associate's degree without exceeding the requirements. A minimum of 60 hours must be taken at a baccalaureate granting institution, so exceeding 64 credit hours at the community college means the student will exceed the minimum of 124 credit hour total. A minimum of 40 hours of 3/4000 level courses are required for the baccalaureate. Courses from community colleges are 1/2000 level.

<div align="center">Major Requirements</div>

Computer Science - Information Science..66
Required..51

^	CMSC	1621	Programming I Laboratory
^	CMSC	2123	Discrete Structures
^	CMSC	2621	Programming II Laboratory
^	CMSC	2833	Computer Organization 1
^	SE	3103	Object Oriented Software Design and Construction
^	CMSC	3303	Systems Analysis and Design
^	CMSC	3413	Enterprise Programming
^	CMSC	3613	Data Structures and Algorithms
^	CMSC	4003	Applications of Database Management Systems
^	CMSC	4063	Networks
^	CMSC	4153	Operating Systems
^	CMSC	4323	Computer and Network Security
^	CMSC	4401	Ethics in Computing
^*	CMSC	4513	Software Design and Development
^	STAT	2113	Statistical Methods **OR (May be taken at OCCC.)**
	^ STAT	2103	Introduction to Statistics for Sciences **OR**
	^ STAT	4113	Mathematical Statistics 1
	ACCT	2113	Accounting I **(May be taken at OCCC.)**
	ACCT	2133	Accounting II **(May be taken at OCCC.)**
	MGMT	3103	Principles of Management
	ISOM	3263	Management Information Systems

^ A grade of 'C' or better must be earned in all required CMSC, SE, MATH, and STAT courses.

* CMSC 4513 is recommended to be taken in the last semester prior to graduation.

Elective CMSC or SE courses..9
    Any 3/4000 level CMSC or SE courses except SE 4513

No more than three (3) hours of Internship and Individual Study combined may be used to satisfy the CMSC or SE elective requirement.

Credit cannot be received for both CMSC 3303 and SE 4283.

Other areas of application..6
    Selected from the following:

ACCT	3113	Managerial Accounting
FIN	3563	Fundamentals of Business Finance
ISOM	3323	Business Analytics
ISOM	4063	Computer Simulation
ISOM	4283	Developing Decision Support Systems
ISOM	4363	Information Systems Management
ISOM	4513	Virtualization

Electives to bring total to...124

<div align="center">**Minimum Grade Requirements**</div>

Average in (a) all college course work, (b) course work at UCO, and (c) major courses............................2.00

Students must meet all bachelor degree requirements at UCO to include minimums of:
40 hours of upper division coursework
30 hours in residence at UCO
15 of the last 30 hours must be taken in residence at UCO
60 hours from baccalaureate granting institutions

* A student may take additional CMSC 3/4000 courses to bring the total hours of upper-division courses to 40.

For other regulations pertaining to graduation, see the UCO Undergraduate Catalog.

Program-to-Program Transfer policies are available in the Introduction for Program-to-Program Agreements on the UCO website at the top of the list of agreements. Links to the agreements can be found on the Academic Affairs or Transfer Student Support web pages.

Transfer Agreement

Oklahoma City Community College: AS - Computer Science

And

University of Central Oklahoma: BS- Software Engineering

To comply with this agreement, students must complete the associate's degree with the major listed above and include the specific courses listed below.

Courses listed here are required for the agreement. Credited courses completed as part of the AA or AS that do not apply to the general education at OCCC or the UCO major transfer to UCO as electives.

OCCC	UCO
General Education requirements	University Core completed with AA or AS
^CS 1143 Beginning Programming	^CMSC 1513 Beginning Programming
^MATH 1533 Pre-Calculus	^MATH 1533 Precalculus-Algebra
^MATH 1613 Trigonometry	^MATH 1593 Plane Trigonometry
CS 2163 JAVA	CMSC 1613 Programming I
CS 2363 C++	CMSC 2613 Programming II
MATH 2104 Calculus and Analytic Geometry I	MATH 2313 Calculus 1
MATH 2214 Calculus and Analytic Geometry II	MATH 2323 Calculus 2

^UCO lists the following for this program: Students majoring in Software Engineering are encouraged to complete the following courses in high school: Advanced Placement High School Programming Course **OR** CMSC 1513 Beginning Programming. MATH 1533 Precalculus-Algebra **OR** Placement Score **AND** MATH 1593 Plane Trigonometry **OR** Placement Score.

*For physical science requirements in the OCCC degree, consult the UCO list on page 2 of this agreement and note appropriate course selections offered at OCCC that meet the requirements at UCO: CHEM 1115, CHEM 1215, PHYS 1114, PHYS 1214, PHYS 2014, PHYS 2114.

This degree requires additional course work, including the general education, as stated in the OCCC Catalog. Other OCCC courses may or may not apply to the UCO major. That specific information can be found on the UCO website under Transfer Students, Online Transfer Guides.

Total at Oklahoma City Community College...61-64

To be taken at the University of Central Oklahoma.....................................65

(May be taken at OCCC.) This signifies that a UCO course requirement can be met with the equivalent OCCC course (found on the UCO website). To take this course at OCCC, the student should confirm that it will fit into the associate's degree without exceeding the requirements. A minimum of 60 hours must be taken at a baccalaureate granting institution, so exceeding 64 credit hours at the community college means the student will exceed the minimum of 124 credit hour total. A minimum of 40 hours of 3/4000 level courses are required for the baccalaureate. Courses from community colleges are 1/2000 level.

Major Requirements

Software Engineering 65
Required...42

^CMSC	1621	Programming I Laboratory
^CMSC	2123	Discrete Structures
^ CMSC	2621	Programming II Laboratory
^CMSC	2833	Computer Organization I
^SE	3103	Object Oriented Software Design and Construction
^CMSC	3613	Data Structures and Algorithms
^CMSC	4003	Applications of Database Management Systems
^SE	4283	Software Engineering I
^CMSC	4323	Computer and Network Security
^CMSC	4401	Ethics in Computing
^SE	4423	Software Engineering II
^SE	4433	Software Architecture and Design
^SE	4513	Software Engineering Senior Project *
^MATH	2333	Calculus 3 **(May be taken at OCCC.)**
^MATH	3143	Linear Algebra
^STAT	2113	Statistical Methods OR **(May be taken at OCCC.)**
^STAT	2103	Introduction to Statistics for Sciences **OR**
^STAT	4113	Mathematical Statistics 1

^ A grade of 'C' or better must be earned in all required CMSC, SE, MATH and STAT courses.

* SE 4513 is recommended to be taken in the last semester prior to graduation.

Elective Science/Math courses.....................................**8-11 (May be taken at OCCC.)**
Select a minimum of eight (8) hours including at least one of the CHEM or PHY lab courses:

CHEM	1103	General Chemistry I
CHEM	1112	General Chemistry I Recitation/Laboratory
CHEM	1223	General Chemistry II
CHEM	1232	General Chemistry II Recitation/Laboratory
PHY	1114	General Physics I and Laboratory
PHY	1214	General Physics II and Laboratory
PHY	2014	Physics for Science & Engineering I and Lab
PHY	2114	Physics for Science & Engineering II and Lab

Any non-required 2/3/4000 level MATH or STAT courses with the following exceptions: MATH 2013, 2053, 2113, 2123, 2133, 2153, 2743, 3323, or 4843.

Elective Courses...9
Choose nine (9) hours from one of the two application areas:

Application Development

CMSC	3413	Enterprise Programming
CMSC	4133	Concepts of Artificial Intelligence
CMSC	4303	Mobile Apps Programming
CMSC	4373	Web Server Programming

System Development

CMSC	4023	Programming Languages
CMSC	4063	Networks
CMSC	4153	Operating Systems
CMSC	4173	Translator Design
CMSC	4193	Introduction to Robotics

Elective CMSC or SE Courses..6
Any 3/4000 level CMSC or SE courses except CMSC 4513

No more than three (3) hours of Internship and Individual Study combined may be used to satisfy the CMSC or SE elective requirement.

Credit cannot be received for both CMSC 3303 and SE 4283.

Electives to bring total to...124

Average in (a) all college course work, (b) course work at UCO, and (c) major courses........... 2.00

Students must meet all bachelor degree requirements at UCO to include minimums of:
40 hours of upper division coursework
30 hours in residence at UCO
15 of the last 30 hours must be taken in residence at UCO
60 hours from baccalaureate granting institutions

Program-to-Program Transfer policies are available in the Introduction for Program-to-Program Agreements on the UCO website at the top of the list of agreements. Links to the agreements can be found on the Academic Affairs or Transfer Student Support web pages.