Transfer Agreement
Between
Rose State College
And
University of Central Oklahoma

Effective Academic Year: 2019-2020

A. S. Degree – Mathematics- Computer Science Emphasis

To

B.S. - Computer Science
B.S. - Computer Science - Applied
B.S. - Computer Science – Information Science
B.S. – Software Engineering

Dr. Gang Qian, Chair
Computer Science

Dr. Wei Chen, Dean
College of Mathematics and Science

Dr. Jeff Caldwell
Vice President for Academic Affairs
Transfer Agreement
Rose State College: A.S.-Mathematics - Computer Science Emphasis
University of Central Oklahoma: B.S.–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 A.A. or A.S. that do not apply to the general education at RSC or the UCO major transfer to UCO as electives.

**RSC**
- General Education requirements
- MATH 2103 Discrete Math
- MATH 1914 Differential and Integral Calculus I
- MATH 2924 Differential and Integral Calculus II
- MATH 2934 Differential and Integral Calculus III
- PHYS 2434 Physics I for Eng. & Science Majors and
- PHYS 2401 General Physics Laboratory I
- MATH 2853 Intro. to Statistics for Engineering and Science
- CIT 1113 Fund of Computer & Programming Logic
- CIT 1173 C++ Language

**UCO**
- University Core completed with A.A or A.S.
- CMSC 2123 Discrete Structures (sub)
- MATH 2313 Calculus 1
- MATH 2323 Calculus 2
- MATH 2333 Calculus 3
- PHY 2014 Physics for Science and Engineering I and Lab (sub)
- STAT 2113 Statistical Methods
- CMSC 1513 Beginning Programming
- CMSC 1613 Programming I

This degree requires additional course work as stated in the RSC Catalog. Other Rose State 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 Guide.

Total at Rose State College.................................................................60-64

To be taken at the University of Central Oklahoma....................................60-64

**Major Requirements**

- Computer Science ..............................................................................58
  - Required ..........................................................................................42
  - CMSC 1621 Programming I Laboratory
  - CMSC 2613 Programming II
  - CMSC 2161 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
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

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

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

Additional degree requirements can be found in 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
Rose State College: A.S.-Mathematics - Computer Science Emphasis
University of Central Oklahoma: B.S.–Computer Science-Applied

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<tr>
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<td>MATH 1914 Differential and Integral Calculus I</td>
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<td>MATH 2934 Differential and Integral Calculus III</td>
<td>MATH 2333 Calculus 3</td>
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<td>MATH 2853 Intro. to Statistics for Engineering and Science</td>
<td>STAT 2113 Statistical Methods</td>
</tr>
<tr>
<td>CIT 1113 Fund of Computer &amp; Programming Logic</td>
<td>CMSC 1513 Beginning Programming</td>
</tr>
<tr>
<td>CIT 1173 C++ Language</td>
<td>CMSC 1613 Programming I</td>
</tr>
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This degree requires additional course work, including the general education, as stated in the RSC Catalog. Other RSC courses may or may not apply to the UCO major. That specific information can be found on the UCO website under the Online Transfer Guide.

Total at Rose State College.................................60-64

To be taken at the University of Central Oklahoma........................60-64

Major Requirements

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<th>Computer Science – Applied</th>
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<td>^ CMSC 2413 Visual Programming</td>
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<td>^ CMSC 2613 Programming II</td>
<td></td>
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<tr>
<td>^ CMSC 2161 Programming II Laboratory</td>
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<tr>
<td>^ CMSC 2303 Computer Organization I</td>
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<td>^ SE 3103 Object Oriented Software Design and Construction</td>
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<tr>
<td>^ CMSC 3303 Systems Analysis and Design OR</td>
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<td>^ SE 4283 Software Engineering I</td>
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<tr>
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<td>**CMSC 4513 Software Design and Development</td>
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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

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

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Transfer Agreement
Rose State College: A.S.-Mathematics - Computer Science Emphasis
University of Central Oklahoma: B.S.-Computer Science-Information Science

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**RSC**
- General Education requirements
- MATH 2103 Discrete Math
- MATH 1914 Differential and Integral Calculus I
- MATH 2924 Differential and Integral Calculus II
- MATH 2853 Intro. to Statistics for Engineering and Science
- CIT 1113 Fund of Computer & Programming Logic
- CIT 1173 C++ Language

**UCO**
- University Core completed with A.A or A.S.
- CMSC 2123 Discrete Structures (Sub.)
- MATH 2313 Calculus 1
- MATH 2323 Calculus 2
- STAT 2113 Statistical Methods
- CMSC 1513 Beginning Programming
- CMSC 1613 Programming I

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**To be taken at the University of Central Oklahoma.................................60-65**

Major Requirements

Computer Science - Information Science.................................................66
Required.....................................................................................................31

^ CMSC 1621 Programming I Laboratory
^ CMSC 2413 Visual Programming
^ CMSC 2613 Programming II
^ CMSC 2161 Programming II Laboratory
^ CMSC 2833 Computer Organization I
^ 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
^ ACCT 2113 Accounting I
ACCT 2133  Accounting II  
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

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Rose State College: A.S.-Mathematics - Computer Science Emphasis
University of Central Oklahoma: B.S. - Software Engineering

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CMSC 4401 Ethics in Computing
SE 4423 Software Engineering II
SE 4433 Software Architecture and Design
SE 4513 Software Engineering Senior Project *
MATH 3143 Linear Algebra

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 Courses

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

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.

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Electives to bring total to

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