Document Purpose

The purpose of this document is provided guidance for individuals on their journey through the Master of Applied Computer Science (MACS) program. However, there are many situations which may arise; please contact the program coordinator to address your concerns.

Considerations

- The average load in graduate school is nine credit hours. This is comparable to 15-18 credit hours in your undergraduate studies.
- You must be enrolled in six credit hours to be eligible for financial aid.
- In general, the guides show the semester in which a course is offered.
- To offer such an accelerated format, COSC 630 and COSC 631 are offered during the summer only.
- Taking sequences out of order is ill-advised. However, if you are currently a developer, exceptions may be granted.
- COSC 600 does not count toward degree requirements.
CONTACT INFORMATION

PROGRAM COORDINATOR

ADMINISTRATIVE ASSISTANTS

DOCUMENT PURPOSE

COMPUTER SCIENCE BACKGROUND

FULL TIME – FALL START

Fall ........................................................................................................................................................ 4
Spring.................................................................................................................................................... 4
Summer ................................................................................................................................................ 4
Fall ........................................................................................................................................................ 4

COMPUTER SCIENCE BACKGROUND

FULL TIME -SPRING START

Spring.................................................................................................................................................... 5
Summer ................................................................................................................................................ 5
Fall ........................................................................................................................................................ 5
Spring.................................................................................................................................................... 5

COMPUTER SCIENCE BACKGROUND

PART-TIME -FALL START*

Fall – Semester 1 .................................................................................................................................. 6
Spring – Semester 2 ............................................................................................................................... 6
Summer – Intersession 1 ....................................................................................................................... 6
Fall – Semester 3 .................................................................................................................................. 6
Spring – Semester 4 ............................................................................................................................... 6

4+1 FROSTBURG STATE UNIVERSITY GRADUATE

B.S. IN CS, CIS, OR SCIA AND STEM MAJORS

Undergraduate classes to take.

Summer .................................................................................................................................................. 7
Fall ........................................................................................................................................................ 7
Spring.................................................................................................................................................... 7

4+1.5 FROSTBURG STATE UNIVERSITY GRADUATE

Bachelor’s in a STEM Field

Undergraduate classes to take.

Summer .................................................................................................................................................. 8
Fall ........................................................................................................................................................ 8
Spring.................................................................................................................................................... 8
Fall ........................................................................................................................................................ 8
NO COMPUTER SCIENCE BACKGROUND

FULL TIME – FALL START

Summer......................................................................................................................9
Fall..............................................................................................................................9
Spring........................................................................................................................9
Summer......................................................................................................................9
Fall..............................................................................................................................9

NO COMPUTER SCIENCE BACKGROUND

FULL TIME -SPRING START

Spring......................................................................................................................10
Summer....................................................................................................................10
Fall............................................................................................................................10
Spring......................................................................................................................10

NO COMPUTER SCIENCE BACKGROUND

PART TIME – FALL START

Fall – Semester 1 ..................................................................................................11
Spring – Semester 2 ............................................................................................11
Summer – Intersession 1 .....................................................................................11
Fall – Semester 3 ..................................................................................................11
Spring – Semester 4 ............................................................................................11
Fall – Semester 5 ..................................................................................................11

NO COMPUTER SCIENCE BACKGROUND

PART TIME – SPRING START

Spring – Semester 1 .............................................................................................12
Summer – Intersession 1 .....................................................................................12
Fall – Semester 2 ..................................................................................................12
Spring – Semester 3 ............................................................................................12
Spring – Semester 4 ............................................................................................12
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NO COMPUTER SCIENCE BACKGROUND

PART TIME – SUMMER START

Summer Intersession 1 .........................................................................................13
Fall – Semester 1 ..................................................................................................13
Spring – Semester 2 ............................................................................................13
Summer – Intersession 2 .....................................................................................13
Fall – Semester 3 ..................................................................................................13
Spring – Semester 4 ............................................................................................13
## Computer Science Background, Full Time – Fall Start

### Fall
- **COSC 635** – Network and Data Communications I
- **COSC 640** – Database I
- **COSC 625** – Advanced Software Engineering
  
  **Completed Credit Requirements:** 9/30

### Spring
- **COSC 636** - Network and Data Communications II
- **COSC 641** – Database II
- **COSC 610** – Advanced Data Structures and Algorithms
  
  **Completed Credit Requirements:** 18/30

### Summer
- **COSC 630** – Web Development I
- **COSC 631** – Web Development II
  
  **Completed Credit Requirements:** 24/30

### Fall
- **COSC 620** – Security in Computing
- **COSC 700** – Research Thesis and Project *(If you plan on going on for a doctorate)*
  
  Or **COSC Elective**

  **Completed Credit Requirements:** 30/30 *(Congratulations!)*

*Note: the last semester courses could be distributed over the previous semesters to further accelerate your progress; however, it is strongly advised that you consult with the Program Coordinator*
Spring

COSC 610 – Advanced Data Structures and Algorithms
COSC 625 – Advanced Software Engineering
Completed Credit Requirements: 6/30

Summer

COSC 630 – Web Development I
COSC 631 – Web Development II
Completed Credit Requirements: 12/30

Fall

COSC 635 – Network and Data Communications I
COSC 640 – Database I
COSC 620 – Security in Computing
Completed Credit Requirements: 21/30

Spring

COSC 636 - Network and Data Communications II
COSC 641 – Database II
COSC 700 – Research Thesis and Project (If you plan on going on for a doctorate)
Or COSC Elective
Completed Credit Requirements: 30/30 (Congratulations!)

Note: Semester courses could be distributed to further accelerate your progress. As this will result in courses being taken out of sequence, it is strongly advised that you consult with the Program Coordinator.
**Fall – Semester 1**

- COSC 635 – Network and Data Communications I  
- COSC 625 – Advanced Software Engineering  
*Completed Credit Requirements: 6/30*

**Spring – Semester 2**

- COSC 636 - Network and Data Communications II  
- COSC 610 – Advanced Data Structures and Algorithms  
*Completed Credit Requirements: 12/30*

**Summer – Intersession 1**

- COSC 630 – Web Development I  
- COSC 631 – Web Development II  
*Completed Credit Requirements: 18/30*

*NOTE: This is a lot of work, you could add an extra summer intersession after Semester 4*

**Fall – Semester 3**

- COSC 640 – Database I  
- COSC 620 – Security in Computing  
*Completed Credit Requirements: 24/30*

**Spring – Semester 4**

- COSC 641 – Database II  
- COSC 700 – Research Thesis and Project (If you plan on going on for a doctorate)  
  - Or COSC Elective  
*Completed Credit Requirements: 30/30 (Congratulations!)*

*The part time schedule is highly adaptable. A student can easily start in the summer, spring, or fall.*
### Undergraduate classes to take

#### CSIT Majors
- During your senior year, you should take two classes, one each semester. Consider taking a sequence such as the Networking Classes - COSC 635 and 636 or Database Classes – COSC 640 and COSC 641
- This example assumes COSC 640 and 641 will be taken.

#### STEM Majors
- Non-CSIT majors must take COSC 240 and COSC 241 in their first three years of undergraduate studies. Upon consultation with the program coordinator, we can waive the COSC 101 prerequisite for COSC 240.
- During your senior year, you should take two classes, one each semester. Consider taking a sequence such as the Networking Classes - COSC 635 and 636 or Database Classes – COSC 640 and COSC 641
- This example assumes COSC 640 and 641 will be taken.

**Completed Credit Requirements: 6/30**

### Summer

- COSC 630 – Web Development I
- COSC 631 – Web Development II

**Completed Credit Requirements: 12/30**

### Fall

- COSC 635 – Network and Data Communications I
- COSC 620 – Security in Computing
- COSC 625 – Advanced Software Engineering

**Completed Credit Requirements: 21/30**

### Spring

- COSC 636 - Network and Data Communications II
- COSC 610 – Advanced Data Structures and Algorithms
- COSC 700 – Research Thesis and Project (If you plan on going on for a doctorate)
  - Or COSC Elective

**Completed Credit Requirements: 30/30 (Congratulations!)**
4+1.5 Frostburg State University Graduate, Bachelor’s in a STEM Field

Undergraduate classes to take

During your college career, you need to take a minimum of COSC 240 and COSC 241. The pre-requisite for COSC 101 can be waived after discussion with the Program Coordinator.

Summer

COSC 630 – Web Development I
COSC 631 – Web Development II
Completed Credit Requirements: 6/30

Fall

COSC 635 – Network and Data Communications I
COSC 640 – Database I
COSC 625 – Advanced Software Engineering
Completed Credit Requirements: 15/30

Spring

COSC 636 - Network and Data Communications II
COSC 641 – Database II
COSC 610 – Advanced Data Structures and Algorithms
Completed Credit Requirements: 24/30

Fall

COSC 620 – Security in Computing
COSC 700 – Research Thesis and Project (If you plan on going on for a doctorate)
   Or COSC Elective
Completed Credit Requirements: 30/30 (Congratulations!)
**No Computer Science Background**

**Full Time – Fall Start**

<table>
<thead>
<tr>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 600 – Computer Programming Concepts*</td>
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<tr>
<td>COSC 602 – Advanced Programming Concepts</td>
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<tr>
<td>*NOTE: Program Coordinator determines deficiency courses to be taken</td>
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<tr>
<td>*Does not count toward degree requirements</td>
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<tr>
<td>Completed Credit Requirements: 3/30</td>
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<table>
<thead>
<tr>
<th>Fall</th>
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<tbody>
<tr>
<td>COSC 635 – Network and Data Communications I</td>
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<tr>
<td>COSC 640 – Database I</td>
</tr>
<tr>
<td>COSC 625 – Advanced Software Engineering</td>
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<tr>
<td>Completed Credit Requirements: 12/30</td>
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<table>
<thead>
<tr>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>COSC 636 - Network and Data Communications II</td>
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<tr>
<td>COSC 641 – Database II</td>
</tr>
<tr>
<td>COSC 610 – Advanced Data Structures and Algorithms</td>
</tr>
<tr>
<td>Completed Credit Requirements: 21/30</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Summer</th>
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<tbody>
<tr>
<td>COSC 630 – Web Development I</td>
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<tr>
<td>COSC 631 – Web Development II</td>
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<tr>
<td>Completed Credit Requirements: 27/30</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Fall</th>
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<tbody>
<tr>
<td>COSC 620 – Security in Computing</td>
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<tr>
<td>COSC 700 – Research Thesis and Project (If you plan on going on for a doctorate)</td>
</tr>
<tr>
<td>Or COSC Elective</td>
</tr>
<tr>
<td>Completed Credit Requirements: 30/30 (Congratulations!)</td>
</tr>
</tbody>
</table>

*Note: the last semester courses could be distributed over the previous semesters to further accelerate your progress; however, it is strongly advised that you consult with the Program Coordinator*
**No Computer Science Background**

**Full Time - Spring Start**

### Spring

COSC 600 – Computer Programming Concepts*
COSC 602 – Advanced Programming Concepts

*NOTE: Program Coordinator determines deficiency courses to be taken

*COSC 625 – Advanced Software Engineering

Completed Credit Requirements: 6/30

### Summer

COSC 630 – Web Development I
COSC 631 – Web Development II

Completed Credit Requirements: 12/30

### Fall

COSC 635 – Network and Data Communications I
COSC 640 – Database I
COSC 620 – Security in Computing

Completed Credit Requirements: 21/30

### Spring

COSC 636 - Network and Data Communications II
COSC 641 – Database II
COSC 610 – Advanced Data Structures and Algorithms

Completed Credit Requirements: 30/30 (Congratulations!)

*Note: Semester courses could be distributed to further accelerate your progress. As this will result in courses being taken out of sequence, it is strongly advised that you consult with the Program Coordinator.*
No Computer Science Background
Part Time – Fall Start

Fall – Semester 1

COSC 600 – Computer Programming Concepts*
COSC 602 – Advanced Programming Concepts
NOTE: Program Coordinator determines deficiency courses to be taken
*Does not count toward degree requirements
Completed Credit Requirements: 3/30

Spring – Semester 2

COSC 610 – Advanced Data Structures and Algorithms
COSC 625 – Advanced Software Engineering
Completed Credit Requirements: 9/30

Summer – Intersession 1

COSC 630 – Web Development I
COSC 631 – Web Development II
Completed Credit Requirements: 15/30
NOTE: This is a lot of work, you could take one of the courses during the summer intersession after Semester 4

Fall – Semester 3

COSC 635 – Network and Data Communications I
COSC 640 – Database I
Completed Credit Requirements: 21/30

Spring – Semester 4

COSC 636 - Network and Data Communications II
COSC 641 – Database II
Completed Credit Requirements: 27/30

Fall – Semester 5

COSC 620 – Security in Computing
COSC 700 – Research Thesis and Project*
Completed Credit Requirements: 30/30 (Congratulations!)
*Optional - If you plan on going on for a doctorate
Spring – Semester 1
COSC 600 – Computer Programming Concepts*
COSC 602 – Advanced Programming Concepts
NOTE: Program Coordinator determines deficiency courses to be taken
*Does not count toward degree requirements
Completed Credit Requirements: 3/30

Summer – Intersession 1
COSC 630 – Web Development I
COSC 631 – Web Development II
Completed Credit Requirements: 9/30
NOTE: This is a lot of work, you could take one of the courses during the summer intersession after Semester 4

Fall – Semester 2
COSC 635 – Network and Data Communications I
COSC 640 – Database I
Completed Credit Requirements: 15/30

Spring – Semester 3
COSC 636 - Network and Data Communications II
COSC 641– Database II
Completed Credit Requirements: 21/30

Fall – Semester 4
COSC 620  – Security in Computing
COSC 625 – Advanced Software Engineering
Completed Credit Requirements: 27/30

Spring – Semester 5
COSC 610 - Advanced Data Structures and Algorithms
COSC 700* – Research Thesis and Project
Completed Credit Requirements: 30/30 (Congratulations!)
*Optional - If you plan on going on for a doctorate
No Computer Science Background Part Time – Summer Start

### Summer Intersession 1

- **COSC 600** – Computer Programming Concepts*
- **COSC 602** – Advanced Programming Concepts

*NOTE: Program Coordinator determines deficiency courses to be taken

*Does not count toward degree requirements

Completed Credit Requirements: 3/30

### Fall – Semester 1

- **COSC 640** – Database I
- **COSC 625** – Advanced Software Engineering

Completed Credit Requirements: 9/30

### Spring – Semester 2

- **COSC 610** – Advanced Data Structures and Algorithms
- **COSC 641** – Database II

Completed Credit Requirements: 15/30

### Summer – Intersession 2

- **COSC 630** – Web Development I
- **COSC 631** – Web Development II

Completed Credit Requirements: 21/30

*NOTE: This is a lot of work, you could take one of the courses during the summer intersession after Semester 4

### Fall – Semester 3

- **COSC 620** – Security in Computing
- **COSC 635** – Network and Data Communications I

Completed Credit Requirements: 27/30

### Spring – Semester 4

- **COSC 636** – Network and Data Communications II

Completed Credit Requirements: 30/30 (Congratulations!)