

# Core Computer Science Curriculum (CSC)

## Freshman

NONE <b>ENGL 1010 (3)</b> Writing I	ENGL 1010 (C or Better) <b>ENGL 1020 (3)</b> Writing II
NONE <b>CSC 1020 (1)</b> Connections to Comp.	<b>General Education<sup>1</sup>(3)</b>
<b>General Education<sup>1</sup>(3)</b>	<b>General Education<sup>1</sup>(3)</b>
CSC 1200 or MATH 1910 <b>CSC 1300 (4)</b> Intro to Prog MATH 1910	CSC 1300 (C or better) <b>CSC 1310 (4)</b> Data Structures
MATH 1710 & 1720 (C or better) or MATH 1730 (C or better) or ACT (27 or better) <b>MATH 1910 (4)</b> Calculus I	MATH 1910 (C or better) <b>MATH 1920 (4)</b> Calculus II

## Sophomore

<b>Science<sup>2</sup> (4)</b>	<b>Science<sup>2</sup> (4)</b>
CSC 1310 (C or better) <b>CSC 2310 (4)</b> Object-Oriented Prog	ENGL 1020 <b>PC 2500 (3)</b> Comm in Professions ENGL 1020 OR NONE <b>COMM 2025 (3)</b> Found of Comm
CSC 1310 (C or better) <b>CSC 2510 (3)</b> Introduction to DevOps and Unix	<b>CSC lower division Elective<sup>3</sup> (3)</b>
MATH 1910 <b>Math 2010 (3)</b> Intro to Linear Alg.	CSC 1310 (C or better) <b>CSC 2700 (3)</b> Discrete Structures For Comp Sci.
Engl 1020 (C or better) <b>English Literature<sup>3</sup> (3)</b>	MATH 1920, CSC 1310 (C or better) <b>CSC 2400 (3)</b> Design of Algorithms MATH 1920

## Junior

<b>General Education<sup>1</sup>(3)</b>	<b>CSC Upper-Division Elective<sup>3</sup> (3)</b>
Junior Standing, CSC 1310 (C or better) <b>CSC 3300 (3)</b> Database Mgmt	<b>CSC Elective<sup>3</sup> (3)</b>
Junior Standing, CSC 1310 (C or better) <b>CSS 3710 (3)</b> Found. Of Comp. Sci.	<b>General Education<sup>1</sup>(3)</b>
CSC 1310 (C or better) <b>CSC 3410 (3)</b> Org & Assembly	Junior Standing, CSC 1310 (C or better) <b>CSC 3040 (3)</b> Prof, Comm, and Res
MATH 1130 (C or better) or permit from Math Dept. <b>MATH 3070 (3)</b> Statistical Methods I OR MATH 1920 (C or better) <b>MATH 3470 (3)</b> Intro to Probs and Stats	CSC 3410 <b>CSC 4320 (3)</b> Comp Architecture

## Senior

Senior Standing, CSC 2310, CSC 2400, CSC 3040, and CSC 3300 <b>CSC 4610 (3)</b> Software Eng I	<b>CSC Upper-Division Elective<sup>3</sup> (3)</b>
<b>General Education<sup>1</sup>(3)</b>	<b>Electives (5)</b>
<b>CSC Upper-Division Elective<sup>3</sup> (3)</b>	CSC 2400 <b>CSC 4200 (3)</b> Computer Networks
CSC 3410 <b>CSC 4100 (3)</b> Operating Systems	CSC 4610 (C or better) <b>CSC 4620 (3)</b> Software Eng II

### Key:

Prerequisites <b>Course Number (Cr. Hours)</b> Course Title Co-requisites
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## Computer Science Flowchart (Core)

<sup>1</sup> General Education History 2010 or History 2020 OR

<sup>1</sup> General Education Humanities/Fine Arts (9 credit hours, 3 of which must be a literature) OR

<sup>1</sup> General Education Social Science (6 credit hours)

<sup>2</sup> Science:

Take one science sequence from  
 BIOL 1113 and BIOL 1123 OR  
 BIOL 1113 and BIOL 2310 OR  
 CHEM 1110 and CHEM 1120 OR  
 GEOL 1040 and GEOL 1045 OR  
 PHYS 2010 and PHYS 2020 OR  
 PHYS 2110 and PHYS 2120

***The remaining 4-hour science elective must come from a different discipline***

<sup>3</sup> English Literature: Take ENGL 2130, or ENGL 2235, or ENGL 2330.

<sup>4</sup> CSC Elective: 15 total credits of Electives, with 9 being Upper-Division

# Cyber Security Curriculum (Cyber)

## Freshman

NONE <b>ENGL 1010 (3)</b> Writing I	ENGL 1010 (C or Better) <b>ENGL 1020 (3)</b> Writing II
NONE <b>CSC 1020 (1)</b> Connections to Comp.	ENGL 1020 <b>PC 2500 (3)</b> Comm in Professions ENGL 1020 OR NONE <b>COMM 2025 (3)</b> Found of Comm
<b>General Education<sup>1</sup>(3)</b>	<b>General Education<sup>1</sup>(3)</b>
CSC 1200 or MATH 1910 <b>CSC 1300 (4)</b> Intro to Prog MATH 1910	CSC 1300 (C or better) <b>CSC 1310 (4)</b> Data Structures
MATH 1710 & 1720 (C or better) or MATH 1730 (C or better) or ACT (27 or better) <b>MATH 1910 (4)</b> Calculus I	MATH 1910 (C or better) <b>MATH 1920 (4)</b> Calculus II

## Sophomore

MATH 1920, CSC 1310 (C or better) <b>CSC 2400 (3)</b> Design of Algorithms MATH 1920	<b>Science<sup>2</sup> (4)</b>
CSC 1310 (C or better) <b>CSC 2310 (4)</b> Object-Oriented Prog	CSC 1310 (C or better) <b>CSC 2570 (3)</b> Intro to Cyber
CSC 1310 (C or better) <b>CSC 2510 (3)</b> Introduction to DevOps and Unix	<b>General Education<sup>1</sup>(3)</b>
CSC 1310 (C or better) <b>CSC 2700 (3)</b> Discrete Stru for Comp Sci	CSC 1310 (C or better) <b>CSC 2770 (3)</b> Intro to Systems and Networking
Engl 1020 (C or better) <b>English Literature<sup>3</sup> (3)</b>	Junior Standing, CSC 1310 (C or better) <b>CSS 3710 (3)</b> Found. Of Comp. Sci.

## Junior

<b>General Education<sup>1</sup>(3)</b>	CSC 3410 <b>CSC 4575 (3)</b> Info Assurance and Cryptography
Junior Standing, CSC 1310 (C or better) <b>CSC 3300 (3)</b> Database Mgmt	<b>Elective (3)</b>
CSC 1310 (C or better) <b>CSC 3570 (3)</b> IT Security	<b>General Education<sup>1</sup>(3)</b>
CSC 1310 (C or better) <b>CSC 3410 (3)</b> Org & Assembly	Junior Standing, CSC 1310 (C or better) <b>CSC 3040 (3)</b> Proff, Comm, and Res
Math 1920 (C or better) <b>MATH 2010 (3)</b> Intro to Linear Alg	CSC 3410 <b>CSC 4320 (3)</b> Comp Architecture

## Senior

Senior Standing, CSC 2310, CSC 2400, CSC 3040, and CSC 3300 <b>CSC 4610 (3)</b> Software Eng I	<b>CSC Elective<sup>3</sup> (3)</b>
<b>General Education<sup>1</sup>(3)</b>	<b>Science<sup>2</sup> (4)</b>
MATH 1130 (C or better) or permit from Math Dept. <b>MATH 3070 (3)</b> Statistical Methods I OR MATH 1920 (C or better) <b>MATH 3470 (3)</b> Intro to Probs and Stats	CSC 2400 <b>CSC 4100 (3)</b> Operating Systems
CSC 2400 <b>CSC 4200 (3)</b> Computer Networks	CSC 4610 (C or better) <b>CSC 4620 (3)</b> Software Eng II
CSC 2400 <b>CSC 4585 (3)</b> Soft and Systems Sec	

### Key:

Prerequisites <b>Course Number (Cr. Hours)</b> Course Title Co-requisites
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## Computer Science Flowchart (Core)

<sup>1</sup> General Education History 2010 or History 2020 OR

<sup>1</sup> General Education Humanities/Fine Arts (9 credit hours, 3 of which must be a literature) OR

<sup>1</sup> General Education Social Science (6 credit hours)

<sup>2</sup> Science:

Take one science sequence from  
 BIOL 1113 and BIOL 1123 OR  
 BIOL 1113 and BIOL 2310 OR  
 CHEM 1110 and CHEM 1120 OR  
 GEOL 1040 and GEOL 1045 OR  
 PHYS 2010 and PHYS 2020 OR  
 PHYS 2110 and PHYS 2120

<sup>3</sup> English Literature: Take ENGL 2130, or ENGL 2235, or ENGL 2330.

<sup>4</sup> CSC Elective: Electives in Computer Science

# Data Science and AI (DSAI)

## Freshman

NONE <b>ENGL 1010 (3)</b> Writing I	ENGL 1010 (C or Better) <b>ENGL 1020 (3)</b> Writing II
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NONE <b>CSC 1020 (1)</b> Connections to Comp.
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<b>General Education<sup>1</sup>(3)</b>
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<b>General Education<sup>1</sup>(3)</b>
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<b>General Education<sup>1</sup>(3)</b>
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CSC 1200 or MATH 1910 <b>CSC 1300 (4)</b> Intro to Prog MATH 1910
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CSC 1300 (C or better) <b>CSC 1310 (4)</b> Data Structures
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MATH 1710 & 1720 (C or better) or MATH 1730 (C or better) or ACT (27 or better) <b>MATH 1910 (4)</b> Calculus I
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MATH 1910 (C or better) <b>MATH 1920 (4)</b> Calculus II
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## Sophomore

<b>Science<sup>2</sup> (4)</b>
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CSC 1310 (C or better) <b>CSC 2310 (4)</b> Object-Oriented Prog
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CSC 1310 (C or better) <b>CSC 2510 (3)</b> Introduction to DevOps and Unix
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CSC 1310 (C or better) <b>CSC 2700 (3)</b> Discrete Structures For Comp Sci.
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Engl 1020 (C or better) <b>English Literature<sup>3</sup> (3)</b>
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<b>Science<sup>2</sup> (4)</b>
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ENGL 1020 <b>PC 2500 (3)</b> Comm in Professions ENGL 1020 OR NONE <b>COMM 2025 (3)</b> Fund of Comm
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MATH 1130 (C or better) or permit from Math Dept. <b>MATH 3070 (3)</b> Statistical Methods I OR MATH 1920 (C or better) <b>MATH 3470 (3)</b> Intro to Probs and Stats
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CSC 1310 (C or better) <b>CSC 2220 (3)</b> Introduction to DS and AI
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MATH 1920, CSC 1310 (C or better) <b>CSC 2400 (3)</b> Design of Algorithms MATH 1920
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## Junior

<b>General Education<sup>1</sup>(3)</b>
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Math 1920 (C or better) <b>MATH 2010 (3)</b> Intro to Linear Alg.
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Junior Standing, CSC 1310 (C or better) <b>CSS 3710 (3)</b> Found. Of Comp. Sci.
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CSC 1310 (C or better) <b>CSC 3410 (3)</b> Org & Assembly
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CSC 1310 (C or better) <b>CSC 3220 (3)</b> Found. of Data Sci
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Junior Standing, CSC 1310 (C or better) <b>CSS 3710 (3)</b> Found. Of Comp. Sci.
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Junior Standing, CSC 1310 (C or better) <b>CSC 4220 (3)</b> Found. of Data Sci
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<b>General Education<sup>1</sup>(3)</b>
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Junior Standing, CSC 1310 (C or better) <b>CSC 3040 (3)</b> Proff, Comm, and Res
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CSC 3410 <b>CSC 4320 (3)</b> Comp Architecture
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## Senior

Senior Standing, CSC 2310, CSC 2400, CSC 3040, and CSC 3300 <b>CSC 4610 (3)</b> Software Eng I
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<b>General Education<sup>1</sup>(3)</b>
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CSC 3410 <b>CSC 4240 (3)</b> Artificial Intelligence
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CSC 3410 <b>CSC 4100 (3)</b> Operating Systems
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CSC 3410 <b>CSC 4260 (3)</b> Adv Data Sci and App
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<b>Electives (5)</b>
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CSC 2400 <b>CSC 4200 (3)</b> Computer Networks
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CSC 4610 (C or better) <b>CSC 4620 (3)</b> Software Eng II
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### Key:

Prerequisites <b>Course Number (Cr. Hours)</b> Course Title Co-requisites
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## Computer Science Flowchart (Core)

<sup>1</sup> General Education History 2010 or History 2020 OR

<sup>1</sup> General Education Humanities/Fine Arts (9 credit hours, 3 of which must be a literature) OR

<sup>1</sup> General Education Social Science (6 credit hours)

<sup>2</sup> Science:

Take one science sequence from  
 BIOL 1113 and BIOL 1123 OR  
 BIOL 1113 and BIOL 2310 OR  
 CHEM 1110 and CHEM 1120 OR  
 GEOL 1040 and GEOL 1045 OR  
 PHYS 2010 and PHYS 2020 OR  
 PHYS 2110 and PHYS 2120

**The remaining 4-hour science elective must come from a different discipline**

<sup>3</sup> English Literature: Take ENGL 2130, or ENGL 2235, or ENGL 2330.

# High Performance Computing (HPC)

## Freshman

NONE  
**ENGL 1010 (3)**  
Writing I

ENGL 1010 (C or Better)  
**ENGL 1020 (3)**  
Writing II

NONE  
**CSC 1020 (1)**  
Connections to Comp.

**General Education<sup>1</sup>(3)**

**General Education<sup>1</sup>(3)**

CSC 1300 (C or better)  
**CSC 1310 (4)**  
Data Structures

CSC 1200 or MATH 1910  
**CSC 1300 (4)**  
Intro to Prog  
MATH 1910

MATH 1910 (C or better)  
**MATH 1920 (4)**  
Calculus II

MATH 1710 & 1720 (C or better) or MATH 1730 (C or better) or ACT (27 or better)  
**MATH 1910 (4)**  
Calculus I

## Sophomore

**Science<sup>2</sup> (4)**

**Science<sup>2</sup> (4)**

CSC 1310 (C or better)  
**CSC 2310 (4)**  
Object-Oriented Prog

ENGL 1020  
**PC 2500 (3)**  
Comm in Professions  
ENGL 1020  
OR  
NONE  
**COMM 2025 (3)**  
Found of Comm

CSC 1310 (C or better)  
**CSC 2510 (3)**  
Introduction to DevOps and Unix

CSC 1310 (C or better)  
**CSC 2770 (3)**  
Intro to Sys and Net

MATH 1910  
**Math 2010 (3)**  
Intro to Linear Alg.

CSC 1310 (C or better)  
**CSC 2700 (3)**  
Discrete Structures  
For Comp Sci.

Engl 1020 (C or better)  
**English Literature<sup>3</sup> (3)**

MATH 1920, CSC 1310 (C or better)  
**CSC 2400 (3)**  
Design of Algorithms  
MATH 1920

## Junior

**General Education<sup>1</sup>(3)**

CSC 2400  
**CSC 4200 (3)**  
Computer Networks

Junior Standing,  
CSC 1310 (C or better)  
**CSC 3300 (3)**  
Database Mgmt

**General Education<sup>1</sup>(3)**

**CSC Elective<sup>3</sup> (3)**

Junior Standing,  
CSC 1310 (C or better)  
**CSC 3040 (3)**  
Proff, Comm, and Res

CSC 1310 (C or better)  
**CSC 3410 (3)**  
Org & Assembly

CSC 2400  
**CSC 4200 (3)**  
Computer Networks

MATH 1130 (C or better) or permit from Math Dept.  
**MATH 3070 (3)**  
Statistical Methods I  
OR  
MATH 1920 (C or better)  
**MATH 3470 (3)**  
Intro to Probs and Stats

## Senior

Senior Standing, CSC 2310, CSC 2400, CSC 3040, and CSC 3300  
**CSC 4610 (3)**  
Software Eng I

**CSC Upper-Division Elective<sup>3</sup> (3)**

CSC 3410  
**CSC 4770 (3)**  
Dist and Cloud Comp

**General Education<sup>1</sup>(3)**

CSC 3410  
**CSC 4320 (3)**  
Computer Architecture

**General Education<sup>1</sup>(3)**

CSC 3410  
**CSC 4100 (3)**  
Operating Systems

CSC 4610 (C or better)  
**CSC 4620 (3)**  
Software Eng II

**Electives (3)**

CSC 4610 (C or better)  
**CSC 4780 (3)**  
Adv Network and Sec

### Key:

Prerequisites  
**Course Number (Cr. Hours)**  
**Course Title**  
Co-requisites

## Computer Science Flowchart (Core)

<sup>1</sup> General Education History 2010 or History 2020 OR

<sup>1</sup> General Education Humanities/Fine Arts (9 credit hours, 3 of which must be a literature) OR

<sup>1</sup> General Education Social Science (6 credit hours)

<sup>2</sup> Science:

Take one science sequence from  
BIOL 1113 and BIOL 1123 OR  
BIOL 1113 and BIOL 2310 OR  
CHEM 1110 and CHEM 1120 OR  
GEOL 1040 and GEOL 1045 OR  
PHYS 2010 and PHYS 2020 OR  
PHYS 2110 and PHYS 2120

**The remaining 4-hour science elective must come from a different discipline**

<sup>3</sup> English Literature: Take ENGL 2130, or ENGL 2235, or ENGL 2330.

<sup>4</sup> CSC Elective: 15 total credits of Electives, with 9 being Upper-Division