



## Transfer Credit Ohio

Ohio Guaranteed Transfer Pathways

CLEVELAND STATE UNIVERSITY

## Computer Science

### Bachelor of Science

**EFFECTIVE BEGINNING ACADEMIC YEAR 2026-27**

LAST REVISED: October 12, 2026

The following table outlines how transfer credits will be applied to the Bachelor of Science in Computer Science degree at Cleveland State University for students who completed an Associate of Science degree via the Ohio Guaranteed Computer Science Transfer Pathway. The OGTP designation guarantees the transfer and applicability of credits, but does not guarantee admission to a program. Some bachelor-degree granting programs may be competitive, and students should check with individual institutions for their program admission requirements.

| COURSE EQUIVALENCIES FROM THE ASSOCIATE DEGREE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | COURSE NUMBER                                                | CREDIT HOURS |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------|
| <b>GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                              |              |
| Any Ohio Transfer 36 approved First Writing (TME001) course                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ENG 101                                                      | 3            |
| Calculus I (TMM005) <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MTH 181                                                      | 4            |
| Any Ohio Transfer 36 approved Arts and Humanities course                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Ohio Transfer 36 Elective*                                   | 3            |
| Any Ohio Transfer 36 approved Arts and Humanities course                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Ohio Transfer 36 Elective*                                   | 3            |
| Any Ohio Transfer 36 approved Social and Behavioral Sciences course                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Ohio Transfer 36 Elective*                                   | 3            |
| Any Ohio Transfer 36 approved Social and Behavioral Sciences course                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Ohio Transfer 36 Elective*                                   | 3            |
| General Chemistry I with lab (OSC008) or Calculus-based Physics I (OSC016) <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PHY 241                                                      | 5            |
| Any Ohio Transfer 36 approved Natural Sciences course <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PHY 242                                                      | 5            |
| Calculus II (TMM006)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MTH 182                                                      | 4            |
| Public Speaking (OCM013), Oral Communication (TMOC), or Second Writing (TME002) course <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ENG 108, ENG 109, or ENG 102                                 | 3            |
| Ohio Transfer 36 approved courses [Recommended: Introduction to Ethics (OAH046) or Introduction to Logic (OAH061)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PHL 101 or PHL 283 (to be submitted) <sup>2</sup> or Varies* | 3            |
| <b>PRE-MAJOR/BEGINNING MAJOR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                              |              |
| Discrete Mathematics (TMM023)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MTH 220 (to be submitted) <sup>2</sup>                       | 3            |
| Computer Science I (OCS001)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CIS 151 (to be submitted) <sup>2</sup>                       | 3            |
| Computer Science II (OCS002)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CIS 260                                                      | 4            |
| Data Structures (OCS003)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CIS 265 (to be submitted) <sup>2</sup>                       | 4            |
| <b>OTHER RECOMMENDATIONS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                              |              |
| Electives [Recommended: Introduction to Computer Science if offered, Elementary Linear Algebra (OMT019), and/or Computer Organization/Architecture] <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MTH 288, ESC 310, or Varies*                                 | 9            |
| <b>TOTAL HOURS FROM ASSOCIATE DEGREE:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                              | <b>60-65</b> |
| Advising Notes:<br>(*) Indicates that coursework will be evaluated for applicable equivalency upon transfer at the university. If a Transfer Assurance Guide (TAG) course is taken, the approved course equivalency will be awarded.<br><sup>1</sup> Cleveland State University recommends Calculus-Based Physics II (OSC017). If not taken during the associate degree program, this course will need to be taken upon transfer.<br><sup>2</sup> "To be submitted" indicates that the course does not currently carry the statewide course equivalency guarantee. However, the institution is working towards this goal and will act in good faith to ensure the appropriate equivalency is given that counts toward the degree.<br><sup>3</sup> Cleveland State University recommends taking Linear Algebra (OMT008) and/or Engineering Statistics and Probability (OES004) . If not completed prior to transferring, these courses will need to be taken upon transfer. |                                                              |              |



## Transfer Credit Ohio

Ohio Guaranteed Transfer Pathways

CLEVELAND STATE UNIVERSITY

## Computer Science Bachelor of Science

**EFFECTIVE BEGINNING ACADEMIC YEAR 2026-27**

LAST REVISED: October 12, 2026

The following additional coursework will be required to complete the Bachelor of Science in Computer Science degree at Cleveland State University after a student has completed their Associate of Science Ohio Guaranteed Computer Science Transfer Pathway degree. Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

| REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                           | COURSE NUMBER      | CREDIT HOURS       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------|--------------------|
| General Education Requirements:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The American Republic (if not taken during the associate degree program) <sup>1</sup>     | CIV 111            | 0-3                |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Computer Architecture                                                                     | CIS 480            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Language Processors                                                                       | CIS 335            | 3                  |
| Major Requirement :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Systems Programming                                                                       | CIS 340            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Introduction to Algorithms                                                                | CIS 390            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Computer Science Technical Writing                                                        | CIS 402            | 2                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Operating Systems                                                                         | CIS 345            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Database Concepts                                                                         | CIS 430            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Software Engineering                                                                      | CIS 434            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Computer Networks                                                                         | CIS 454            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Computer Security                                                                         | CIS 475            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Senior Design I                                                                           | CIS 493            | 2                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Senior Design II                                                                          | CIS 494            | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Computer Science Electives                                                                | Varies             | 18                 |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Technology Ethics or AI & Data Ethics                                                     | PHL 215 or PHL 216 | 3                  |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Engineering Statistics and Probability (if not taken during the associate degree program) | ESC 310            | 0-3                |
| Major Requirement:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Engineering Economy                                                                       | ESC 282            | 3                  |
| College required for Co-op students:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Engineering Co-op Orientation <sup>2</sup>                                                | ESC 130            | 0-1                |
| REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE TOTAL: <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                           |                    | 58-65              |
| Advising Notes:<br><sup>1</sup> This courses has been approved for the Civic Literacy designation. This graduation requirement begins spring semester of the 2029-2030 academic year.<br><sup>2</sup> ESC 130 is generally recommended but required for students who are in the co-op program.<br><sup>3</sup> Cleveland State University requires a total of 125 credit hours for degree completion. The total number of hours to complete a bachelor's degree represents a range of hours that may be needed depending on the individual course selections made during the associate degree program. |                                                                                           |                    |                    |
| COMPLETE BACHELOR'S DEGREE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                           |                    | TOTAL CREDIT HOURS |
| BACHELOR'S DEGREE TOTAL:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                           |                    | 125                |



## Transfer Credit Ohio

Ohio Guaranteed Transfer Pathways

CLEVELAND STATE UNIVERSITY

## Computer Science Bachelor of Science

EFFECTIVE BEGINNING ACADEMIC YEAR 2026-27

LAST REVISED: October 12, 2026

### SPECIAL NOTES

For more information, please contact:

[cs@csuohio.edu](mailto:cs@csuohio.edu)

216-687-4604

<https://engineering.csuohio.edu/cs>

## SAMPLE DEGREE MAP

### THIRD YEAR

| SEMESTER 5                                 |              | SEMESTER 6                                                                             |              |
|--------------------------------------------|--------------|----------------------------------------------------------------------------------------|--------------|
| COURSE NAME & NUMBER                       | CREDIT HOURS | COURSE NAME & NUMBER                                                                   | CREDIT HOURS |
| CIS 335 Language Processors                | 3            | CIS 345 Operating Systems                                                              | 3            |
| CIS 340 Systems Programming                | 3            | CIS 430 Database Concepts                                                              | 3            |
| CIS 390 Introduction to Algorithms         | 3            | CIS 454 Computer Networks                                                              | 3            |
| CIS 402 Computer Science Technical Writing | 2            | CIS 480 Computer Architecture                                                          | 3            |
| ESC 282 Engineering Economy                | 3            | PHL 215 Technology Ethics or PHL 216 AI & Data Ethics                                  | 3            |
| ESC 130 Engineering Co-op Orientation      | 0-1          | The American Republic (if not taken before transferring to Cleveland State University) | 0-3          |
| Total SEMESTER 5 Credit Hours              | 14-15        | Total SEMESTER 6 Credit Hours                                                          | 15-18        |

### FOURTH YEAR

| SEMESTER 7                                                                                                      |              | SEMESTER 8                          |              |
|-----------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------|--------------|
| COURSE NAME & NUMBER                                                                                            | CREDIT HOURS | COURSE NAME & NUMBER                | CREDIT HOURS |
| CIS 475 Computer Security                                                                                       | 3            | CIS 494 Senior Design Project II    | 3            |
| CIS 493 Senior Design I                                                                                         | 2            | Computer Science Technical Elective | 3            |
| CIS 434 Software Engineering                                                                                    | 3            | Computer Science Technical Elective | 3            |
| Computer Science Technical Elective                                                                             | 3            | Computer Science Technical Elective | 3            |
| Computer Science Technical Elective                                                                             | 3            | Computer Science Technical Elective | 3            |
| ESC 310 Engineering Statistics and Probability (if not taken before transferring to Cleveland State University) | 0-3          |                                     |              |
| Total SEMESTER 7 Credit Hours                                                                                   | 14-17        | Total SEMESTER 8 Credit Hours       | 15           |