# COMPUTER SCIENCE, CERTIFICATE IN (POST-BACCALAUREATE UNDERGRADUATE CERTIFICATE)

The Certificate in Computer Science is available to students who have received bachelor's degrees in other subject areas and wish to pursue the study of computer science. Additionally students must have completed one semester of an introductory programming course with a minimum grade of B, one semester of calculus or discrete mathematics (MATH 200 or MATH 211 or equivalent with a minimum grade of B) and maintained a minimum overall GPA of 3.0 in their bachelor's degree for acceptance into the program. Students who receive the certificate through this program equip themselves for many professional opportunities in the scientific community and with government agencies. The certificate is also designed to allow interested students to prepare for graduate study in computer science.

This program requires a minimum of 30 credits in computer science at the 200 level or higher.  Each course must be completed with a grade of C or better.  Appropriate course work completed before or after receiving the bachelor's degree can be applied to the certification with approval.

| Course | Title | Hours |
| --- | --- | --- |
| **Required courses** | | |
| CMSC 255 | Object-oriented Programming | 4 |
| CMSC 256 | Introduction to Data Structures | 4 |
| CMSC 257 | Computer Systems | 4 |
| CMSC 302 | Introduction to Discrete Structures | 3 |
| CMSC 311 | Computer Organization | 3 |
| CMSC 401 | Algorithm Analysis with Advanced Data Structures | 3 |
| **Additional courses** | | |
| The remaining three courses must be at a 300-level or higher in computer science with at least one of these courses at the 400-level (including CMSC 506 or 508). | | 9 |
| **Total Hours** | | **30** |

**The minimum total of credit hours required for this certificate is 30.**

For additional specializations, check departmental requirements.

Upon successful completion of all course work in five years or less, with a minimum GPA of 2.5, the student is awarded the computer science certificate. Successful completion of this program does not guarantee admission to the master's degree program in computer science.