

# AI FOR CYBERSECURITY, CERTIFICATE OF ACHIEVEMENT

This Certificate of Achievement in AI for Cybersecurity prepares students to meet the growing demand for cybersecurity professionals who are skilled in using artificial intelligence (AI) to combat increasingly sophisticated cyber threats. The program is structured to provide students with a strong foundation in cybersecurity, computer science, and mathematics, while also introducing critical AI concepts and tools essential for modern defense strategies. Offering a robust technical foundation, practical hands-on experience, and pathways to a rewarding career in the dynamic field of cybersecurity, the program also prepares students for industry certifications like CompTIA Security+ and PenTest+.

## Program Level Student Learning Outcomes

Upon completion of this program, students will be able to:

1. Demonstrate understanding of AI concepts and their applications in detecting and mitigating cybersecurity threats.
2. Apply foundational cybersecurity principles to safeguard systems and networks.
3. Utilize artificial intelligence (AI) powered tools for threat detection, intrusion prevention, and security analysis.
4. Understand the ethical and legal considerations surrounding the use of AI in cybersecurity.

Review Graduation Requirements (<https://catalog.cccd.edu/coastline/graduation-requirements/certificates/#achievementtext>).

| Course                                 | Title  | Units     |
|--|--|-----------|
| <b>Required Core:</b>                  |  |           |
| Complete all of the following courses: |  |           |
| CYBR C101                              | Introduction to Cybersecurity                              | 3         |
| CIS C157                               | Introduction to Python Programming                         | 3         |
| CYBR C170                              | Cybercrime and CSIRT Coordination                          | 3         |
| ICS C165                               | Foundations of Data Science and Artificial Intelligence    | 3         |
| ICS C265                               | Artificial Intelligence                                    | 3         |
| CYBR C210                              | AI Applications in Cybersecurity                           | 3         |
| CYBR C230                              | Network Security (Security+)                               | 3         |
| CYBR C242                              | Ethical Hacking & AI Driven Penetration Testing (PenTest+) | 3         |
| CYBR C280                              | Emerging Trends in Cybersecurity                           | 3         |
| <b>Total Units</b>                     |  | <b>27</b> |