

# Arcadia University

## Computer Science Certification Policies

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**Abstract** – The objective of this proposal is to advocate for a new policy within Arcadia’s academic structure that allows students to receive academic credit for approved technology certifications. This initiative aims to expand the academic scope, encourage skill diversification, and provide tangible rewards for students pursuing professional certifications alongside regular coursework.

## 1 Background and Motivation

While Arcadia offers a comprehensive curriculum, the rapidly evolving field of technology presents students with opportunities to gain specialized skills that may lie outside traditional academic boundaries. Some students are already taking the initiative to earn certifications, yet these efforts are not acknowledged within the academic framework.

Some students have set an initial precedent, specifically for the Cisco Certified Network Associate, that earning this certification will earn a student 3-course credits. This precedent has encouraged many new students to start looking into these certifications and even begin to pursue them in the short time since this opportunity has been made public.

## 2 Policies at Accredited Institutions

Recognizing the value of specialized skills training, several accredited institutions have successfully implemented policies similar to the one proposed here. These initiatives have not only added value to their respective academic programs but also substantially increased the employability of their graduates.

### \* Most Notable and Best Programs \*

- **Stanford University** gives course credit just for preparing to take the AWS Solutions Architect Certification, as well as similar benefits and opportunities for similar certifications.

- **The University of Texas at Dallas** gives graduate-level credit for preparing for the AWS Solutions Architect Certification, as well as similar benefits and opportunities for similar certifications.

The following are additional programs from accredited colleges and universities that support their students through certification programs:

- **Wake Tech Community College** Offers significant academic credit for Cisco Certified Network Associate and Cisco Certified Network Professional certifications, among others. Their unique approach rewards students with up to 12 credits for each Cisco certification.

- **Louisiana State University Online** Offers up to 6 academic credits for the AWS Solutions Architect Certificate and 4 academic credits for the AWS Cloud Practitioner certificate. Their model creates a seamless path between industry recognition and academic acknowledgment.

- **Western Governors University** Takes a holistic approach by emphasizing coursework that teaches the content required for multiple certifications. This method ensures that students are well-prepared for both academic and industry roles.

- **Community College of Philadelphia & University of Arizona** These schools have introduced a course-hours-based approach for Cisco Certified Network Associate, with 225 and 100 course hours, respectively, emphasizing the practical applications of the certification.

- **Murray State University** Supports a wide array of certifications from CompTIA, Cisco, Microsoft, and Amazon, demonstrating the versatility and comprehensive nature of their academic offerings.

- **University of Texas at El Paso** Provides a significant num-

ber of course hours towards certifications like Cisco Certified Network Associate and AWS Cloud Practitioner, aligning professional development with academic achievement.

By following these successful models, Arcadia has the opportunity to implement a proven and beneficial program that rewards academic engagement and practical skills training.

### 3 Initial Precedent at Arcadia

On Friday, June 9th, 2023, the precedent was set at Arcadia University for the CCNA (Cisco Certified Network Associate) certification from Cisco Systems, where Adam Spera '25 was granted three credits after proof of a verified certificate after a discussion between Dr. Jia (chair of the computer science department), and Helena Market (assistant registrar).

The grounds for the awarding of credits came from the ACE National Guide for credit evaluations for non-traditional or edge cases. This guide contains many different options for the CCNA certification from many sources, all varying in credit value, ranging from two to fifteen credits. Additionally, not one entry is the official most recent version of the CCNA, with nearly all the entries being more than five years outdated. This guide also does not have entries for any other certifications proposed in these policies, even when these certifications are the most recognized certifications across multiple fields.

As of writing, on Wednesday, August 30th, 2023, many students are now pursuing the CCNA certification to pursue these credits and advance their knowledge in areas they are interested in.

### 4 Proposed Policy Details

The policy aims to award academic credits for approved professional technology certifications. Each certification will have a pre-determined number of academic credits established by the respective academic department, though this proposal focuses on Computer Science certifications.

#### Policy Edge Limits:

**Up to 12 Credits Limit:** Students are allowed to accumulate a maximum of 12 credits from approved certifications. This limit allows for students to complete a full track (1 certification per level and an additional Associate/Entry level cert from another track)

**Departmental Approval:** Certifications must be approved by the respective academic department for credit eligibility. Certifications are carefully considered and ranked by the related department. Additional departments can add certifications for their respective topics, but the focus of this proposal is on Computer Science certifications.

#### Supported Certifications:

The certifications listed below have been ranked by levels based on difficulty, prestige, and study time. The chosen certifications provide students with three distinct areas of focus: Security, Networking, and Cloud, with many topics overlapping, offering students a broad spectrum of knowledge.

**AU "Professional" Level (4 Credits):** Cisco Certified Network Associate, Cisco Certified CyberOps Associate, AWS Security Specialty, AWS Advanced Networking Specialty

**AU "Associate" Level (3 Credits):** Cisco Certified DevNet Associate, CompTIA A+, CompTIA Network+, CompTIA Security+, AWS SysOps Administrator Associate, AWS Developer Associate, AWS Solutions Architect Associate, Developing Solutions for Azure AZ-204, Microsoft Azure Administrator AZ-104

**AU "Entry" Level (2 Credits):** Cisco Certified Support Technician Cyber Security, Cisco Certified Support Technician Networking, AWS Certified Cloud Practitioner, Azure Fundamentals AZ-900

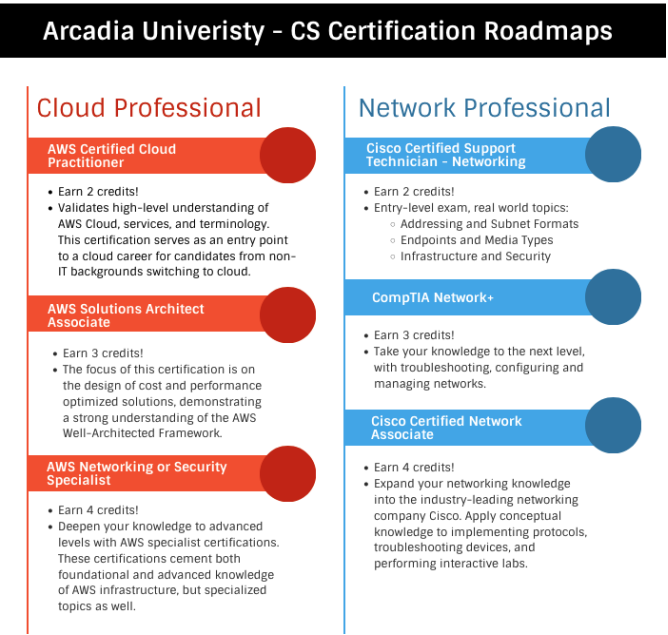


Figure 1: Example Certification Roadmaps Infographic

### 5 Summary

By implementing the proposed policy to award academic credits for approved technology certifications, Arcadia can further cement its reputation as an innovative and forward-thinking educational institution. This policy not only adds value to our current academic offerings but also aligns with successful models

already in place at other accredited institutions.

The initiative is designed to be mutually beneficial for both the students and the institution. Students will be encouraged to acquire practical skills that are highly valued in the job market, while Arcadia will strengthen its curriculum, making it more competitive and relevant in today's age.

By moving forward with this proposal, Arcadia has a golden opportunity to lead in educational innovation, better prepare its students for the professional world, and set a benchmark for integrating practical skills training with traditional academic programs.