

Proposal  
Professional Development Assignment  
Daniel Kohn  
Network Certification and Curriculum Development/Improvement

## **Background**

Currently the Network Field of Study (FOS) for Engineering Technology is using the three course Cisco Academy curriculum that prepares students for the Cisco Certified Network Associate (CCNA) Certification Exam. This FOS is being added to the Polytechnic @ UofM initiative as well as being used as a separate certificate program.

There are several issues currently facing this FOS:

- 1) Networking and Cybersecurity are vital areas in which to train students in ET and the Polytechnic. To accomplish this, the department needs faculty with this expertise. The faculty member who was a “Certified Cisco Instructor” resigned right before the Fall 2022 semester.
- 2) The Cisco Academy requires “Certified Cisco Instructors” to teach the curriculum and requires the instructor to complete the three-course sequence of the Cisco Academy with ALL labs, assignments and testing completed to their satisfaction before they can be the instructor of record in the Cisco Academy. Currently UofM is being allowed to offer the Cisco Academy under the supervision of a remote Cisco Certified Instructor. This arrangement has been used since 2022, but how long this arrangement will be allowed to continue is unclear. Scott Southall, Chair of the Department of Engineering Technology, has paid for the 3-course sequence, but due to teaching loads, they have not been completed.
- 3) The Cisco Academy courses are well done and provide the relevant course material for the students. The assignments, many using their proprietary Packet Tracer software, are good learning tools, but do not stress network theory, design, critical thinking and debugging that are expected for a BS or BAS Degree. New assignments need to be developed that reinforce these skills.
- 4) Cisco Academy also provides hands-on labs. These labs suffer from the issues discussed above as well as needing to be modified for the equipment available in our networking lab.

- 5) The Network FOS is the ONLY FOS in the Department of Engineering Technology NOT being taught by an instructor that has work experience in the subject matter. More time to experiment and gain practical experience that would allow the instructor to bring that knowledge into the classroom and make the course more relevant to the work environment is required.

### **Goals**

I therefore request a Professional Development Assignment (PDA) with the following goals:

- 1) Complete the three course “Cisco Certified Instructor” sequence and obtain my Cisco Certified Instructor Certificate.
- 2) Create new tests and assignments to improve student outcomes, understanding of networking theory, design, critical thinking and debugging to increase the rigor of the courses to the appropriate level for a BS or BAS degree.
- 3) Create new hands-on labs that improve students’ comprehension of key networking concepts and better prepare them for work in the field.
- 4) Work with Michael Heppner and Information Technology Services (ITS) on campus to gain field experience in networking by doing an internship with the department.

### **Funding**

Although external funding has yet to be secured, with the creation of the Polytechnic @ UofM and the increasing interest in Networking and Cybersecurity in the area of work force development, I will take advantage of any funding opportunities that support the PDA and the applied Network and Cybersecurity curriculum.

### **Benefits**

The benefits of having a more qualified and certified Cisco Certified Instructor should be self-evident. Given the time to develop a more rigorous academic experience will help ET and the Polytechnic create a robust networking and cybersecurity curriculum and ensure our students succeed in the networking field, are prepared for CCNA certification examination, and bolster the reputation of the degree program(s), department, college, university and our constituents.

### **Timeline**

Ideally this PDA would be for one semester (Spring 2026) with 100% of the time devoted to the PDA. Due to the Department of Engineering Technology being shorthanded and that it is

unlikely to find a similarly qualified adjunct to teach the network curriculum, I suggest that the PDA be allowed to be a yearlong PDA (Spring 2026 and Fall 2026) with the understanding that I would be required to teach the Cisco Academy related courses during that time. Since, according to policy, a normal year long PDA would be at half salary, I would request that I be compensated for the additional teaching responsibilities with Adjunct Pay for those courses. This would still leave a budget for other adjuncts to be hired to cover other classes if necessary.

### **Endorsements**

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Scott Southall, Chair – Department of Engineering Technology

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Dr. Okenwa Okoli, Dean – Herff College of Engineering

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Dr. Russell Deaton, Special Assistant to the Provost