NEW PROGRAM PROPOSAL FORM

Sponsoring Institution(s): University of Central Missouri

Program Title: Networking Technology

Degree/Certificate: Bachelor of Science

Options: NA

Delivery Site(s): Main Campus (Warrensburg).

CIP Classification: 11.0901

*CIP code can be cross-referenced with programs offered in your region on MDHE's program inventory highered.mo.gov/ProgramInventory/search.jsp

Implementation Date: Fall 2015

Cooperative Partners: NA

*If this is a collaborative program, form CL must be included with this proposal

AUTHORIZATION:

Click here to enter text. _____ 3/13/15
Name/Title of Institutional Officer   Signature   Date

Doug Koch
Click here to enter text.   Click here to enter text. 660-543-4439
Person to Contact for More Information   Telephone

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205 Jefferson Street, P. O. Box 1469, Jefferson City, MO 65102 • (573) 751-2361 • (800) 473-6757 • Fax (573) 751-6635

Form PS – Program Structure

STUDENT ENROLLMENT PROJECTIONS

Year	1	2	3	4	5
Full Time	30	45	60	80	100
Part Time	5	7	10	15	20
Total	35	52	70	95	120

Please provide a rationale regarding how student enrollment projections were calculated:

The student enrollment projections are based off of the current number of students in the Electronics Technology (ET) (Area 2 – Computer/Networking Electronics Technology), 34 active, and the current growth that benchmarked 4 year programs as well as Community Colleges have experienced.

Provide a **rationale** for proposing this program, including **evidence of market demand and societal need supported by research:**

The School of Technology (SOT) at The University of Central Missouri is requesting approval for a B.S. in Networking Technology degree. The proposed addition is important to the School of Technology's continuing efforts to enhance its contributions to the goals of the State Plan for Postsecondary Technical Education and meet CBHE Mission Enhancement Accountability Measures. Virtually all businesses, organizations, and companies now rely on networks as a crucial component of their operations and structure. Current Missouri Real Time Labor Market Summaries show components of Networking, including installers, designers, system analysts, project managers, and those with networking certifications such as Cisco's Certified Network Associate and Network+ Certified in high demand for "now" occupations and "next" occupations. Therefore, after researching other successful programs in the region and country, consulting with our advisory committee, numerous industries, educational facilities, and organizations in the region, we desire to create a Networking Technology B.S. The School of Technology's Electronics Technology Degree has been in existence at UCM for well over 20 years. Enrollments have fluctuated but maintained strong due to the high demand for our graduates. In 2005 the Electronics Technology Degree added a Networking area. The networking area has done well and as demand for IT and networking professionals increases,

there is a need for greater emphasis and more depth in networking instruction. In 2011 the networking area had 29 majors. That number grew to 38 in 2012. Continued growth in networking is expected as demand increases and the new program will focus specifically on Networking, further attracting additional students. Numerous opportunities for collaboration and transfer exist for the Networking Technology Program. The current ET area 2 faculty work with several regional technology centers and community colleges. Approximately 30% of the students in the current area are transfer students. Regarding duplication, in 2006 the School of Technology created a B.S. in Engineering Technology. The Engineering Technology degree has an option in Electrical Engineering Technology. This option created considerable duplication of the Electronics Technology degree. Duplication of the electronics area is not warranted. Input from industry professionals, current labor markets, and evidence from benchmarked programs suggest the need for a separate Networking Technology degree. The separate degree program will provide more depth and breadth in networking. It will also attract more students to that area that are seeking a networking specific degree as opposed to one heavily emphasizing electronics. Due to the duplication of the Electronics Technology and the Engineering Technology (electronics option) the Electronics Technology program would be placed in abeyance upon approval of the Networking Technology degree.

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A. Total credits required for graduation: <u>120</u>

B. Residency requirements, if any: <u>30 hours overall, 20 hours upper-level, 15 hours in the major, 9 upper-level hours in the major.</u>

C. General education: Total credits: <u>43</u>

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title
COMM 1000	3	Public Speaking
ENG 1020	3	Composition I
MATH 1111	3	College Algebra
PHYS 1104	4	Introduction to the Sciences: Physics W/ lab
CIS 1600	3	Business Information Management
CIS 1612	3	Ethics in Information Technology
CTE 3060	3	Technical Writing
CS 1030	3	Introduction to Computer Programming
Literature	3	
Fine Arts	3	
Language or Humaniti	3	Additional Courses (3 hours) from Knowledge Area 1)
History	3	
Social/Behavioral Sci	6	or History
*NET 4063	*3	Network Support *(Counted in Major hours)

D. Major requirements: Total credits: <u>71</u>

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Course Number	Credits	Course Title
NET 1000	2	Seminar in Networking Technology
NET 1058	3	Computer Technologies
NET 1060	3	Introduction to Networking
NET 1061	3	Routing and Switching Essentials
NET 2060	3	Scaling Networks
NET 2061	3	Connecting Networks
NET 3062	3	Network Design
NET 3065	3	Converged Voice & Data Networks
NET 3068	4	Networking Security I
NET 4040	3	Fundamentals of Network Op. Sys
NET 4042	3	Network Servers and Service
NET 4043	3	Network Services and Infrastructure
NET 4060	3	Advanced Network Routing
NET 4062	3	Advanced Switching
NET 4063	3	4063 Network Support
ET 1010	4	Applied Electricity
ET 3017	4	Programmable Logic Controllers
INDM 4250	3	Project Management
SOT 3022	3	Internship
CIS 3650	3	Database Management
CS 1100	3	Computer Programing I
CTE 3116	3	Creative Problem Solving
CTE 1300	3	Intro to Engineering Design

E. Free elective credits:

6

(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:

NA

G. Any unique features such as interdepartmental cooperation:

Internship Required

PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

Institution Name   University of Central Missouri
Program Name   Networking Technology
Date   3/2/15

(Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below. Quantification of performance goals should be included wherever possible.)

1. Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required. .
  None

- Characteristics of a specific population to be served, if applicable.
  None

2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.
  Current faculty from the Electronics Technology program will be teaching courses for this program.

- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.
  Approximately 80% or 96 credit hours of the 120 hour program will be taught by full time faculty.

- Expectations for professional activities, special student contact, teaching/learning innovation.
  Similar to the current Networking area of the ET program, faculty are expected to maintain appropriate levels of service and scholarship as well as teaching per university requirements and expectations. Faculty will oversee internships, work on accreditation requirements, and maintain certifications.

3. Enrollment Projections

- Student FTE majoring in program by the end of five years.
  At the end of five years we anticipate 100 fulltime students and 20 part time or 110 FTE

- Percent of full time and part time enrollment by the end of five years.
  83.3% full time students, 16.6% part time based on FTE.

4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.
  After 3 years approximately 15 graduates per annum and after 5 years approximately 25

- Special skills specific to the program.
  Networking specific skills required of the program similar to those that were required of
  the Electronics Networking area.

- Proportion of students who will achieve licensing, certification, or registration.
  100% of the students will receive various levels of Cisco certification such as CCNA or
  equivalent certifications.

- Performance on national and/or local assessments, e.g., percent of students scoring above
  the 50th percentile on normed tests; percent of students achieving minimal cut-scores on
  criterion-referenced tests. Include expected results on assessments of general education
  and on exit assessments in a particular discipline as well as the name of any nationally
  recognized assessments used.
  Expectation is that over 50% of the students will place at or above the 50-percentile of
  the General Education Assessment test.

- Placement rates in related fields, in other fields, unemployed.
  With the current job market and based on current ET, CS, and CIS student placements,
  we expect a 90% placement rate.

- Transfer rates, continuous study.
  Transfer students make up a 30% of the current department's (School of Technology)
  student population therefore we would expect about 30% of the students, possibly
  slightly higher with strong military interests, to be transfers.

5. Program Accreditation

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. **If there are no plans to seek specialized accreditation, please provide a rationale.**
  The Networking Technology program will seek accreditation from the Association of Technology, Management, and Applied Engineering (ATMAE) during our next visit in 2020. We will also pursue ABET accreditation in 2021 or during the department reaccreditation for ABET.

6. Alumni and Employer Survey

- Expected satisfaction rates for alumni, *including timing and method of surveys.*
  Satisfaction rates are expected to be approx. 85% and surveys will be administered every year. Documentation on satisfaction rates, employer's satisfaction, salary information, etc. are all required for accreditation.

- Expected satisfaction rates for employers, including timing and method of surveys.
  Satisfaction rates are expected to be approx. 85% and surveys will be administered every year. Documentation on satisfaction rates, employer's satisfaction, salary information, etc. are all required for accreditation.

7. Institutional Characteristics

- Characteristics demonstrating why your institution is particularly well-equipped to support the program.
  The current ET program that has a networking area has demonstrated that the demand exists and our current faculty and facilities have the capacity to handle the projected increase in enrollment for a specific program. UCM currently has a CS and a CIS program; adding a networking technology degree will add a third and vital component of the IT world and fulfill the need and demand in the region.

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Form NP – New Program Proposal