Computer & Network Technology / IT Cybersecurity
Advisory Committee Meeting – November 19, 2022
Minutes

Present:
Don Campbell, Instructor
Don Fischer, Instructor
Mark Meuleners, Instructor
Brian Woinarowicz – Network Specialists, Inc.
Josh Wynn, Aatrix
Jacob Bakke, UND
Arron Harlow, Network Specialists

Absent:
Karla Hammer
Ken Satkunam
Bert Burkholder
Jeff Compton
Joanne Johnson
Josh Benson
Laura Palmer
Matt Schumacher

1. Review Minutes from October 22, 2019, Meeting
   a. Motion to approve minutes as written: Don Fisher
      i. Motion seconded by: Brian W.
      ii. Motion carried unanimously
2. Discuss general program information
   a. Brief review of Computers and Networking
   b. Brief review of IT Cybersecurity
3. Discussion of additional programs/paths
   a. Revisions to the Cisco Curriculum
      i. Input on Cisco Course Restructuring Plan - The four course Cisco curriculum has been changed to a three course curriculum, and some of the objectives have been shuffled around.
         1. Net2
            a. Reviewed the proposed Common Course Outline
            b.
         2. Net3
            a. Reviewed the proposed Common Course Outline
            b. Comments
               i. Jacob asked about how wireless will be covered in the program
                  1. Don C. – Most of the work on wireless will be through Packet Tracer simulation (due to the difficulty of additional wireless in the campus environment)
                  2. Jacob offered opportunities for students to come and see what they are working with in their environment.
         3. Net4
            a. Reviewed the proposed Common Course Outline
            b. Comments

        i.   Jacob was very enthusiastic about the expansion of the hands-on opportunities for the students.

        ii.   Mark described the target environment and goals.

        iii.   Josh appreciated the introduction of backup and version control concepts. Fantastic idea.

               1.   Brian seconded the emphasis of backups before system changes.

               2.   Josh – Trace logs of who changed what when is critical.

    ii.   Internship Course Outline

        1.   Current Course Outline had incorrect numbers for the Maintenance class, and the Infosys course is no longer offered, so it needs to be removed.

    iii.   Request for support of changes: Unanimous approval of all changes.

b.   IT Cybersecurity Program status update

    1.   Status update -

    2.   Goal 5 Elective Economics additions

        a.   We prefer a psychology, sociology, or economics course

        b.   The Principles of Economics class is no longer offered, so we would like to add the Micro Economics and Macro Economics option courses as options

        c.   Discussion: Review of Alternative G5 Electives

           i.   (Reviewed the contents of the website)

           ii.   Jacob – Speech included?

               1.   Mark - Yes, speech and composition are standard program requirements.

        d.   Comments

           i.   Jacob would prefer not needing to take the Goal 5 Elective

               1.   Don C. noted that it was a requirement of the degree

        e.   Approval

               1.   Brian moved

               2.   Seconded Arron

               3.   Unanimous approval

c.   Other possible generalizations/specializations. (There are opportunities to obtain grants to expand or add programs.) Is there a need for:

    i.   Skilled coders –

a. Josh – A software development program at a 2-year level would definitely be desirable
    i. For him, the majority of his skills were learned in his 2-year studies
    ii. Huge need for practical programmers
    iii. 4-year schools focus too much on mathematics, algorithms, and high-level concepts
    iv. Need useful skills without all the pretense
    v. Has met software developers over the years who love programming, but don't like working with hardware.

2. Specific languages
    a. Josh – Aatrix: C# - Would recommend a Microsoft-type training programs
        i. HTML and Java script
    b. Jacob – Powershell is something that's becoming a requirement with Azure (seconded by Brian and Josh)
    c. Jacob – Cisco for the CCNP has a section on Python
        i. They have development people who use it. – Working with Cisco Dev Ops team to develop an application
        ii. Josh seconded the popularity of Python

3. Azure Environment – Microsoft grant opportunities
    a. Brian feels that introduction to the cloud/hybrid environment is going to be critical in the future
        i. Expensive to place environments in the clouds
    b. Discussed the Microsoft Grant offering
        i. Brian – Some exposure is important
        ii. Jacob – They have built out their active directory in the cloud. Internet outages to the data center are a serious issue, so that redundancy is key to maintaining their world-wide connectivity.
            1. It would be really good to at least introduce the concepts.
            2. Its not like traditional networking. It's a very different piece-built code-environment.

4. Other
    a. Josh – When hiring, having applicants having something that they can show in the interview makes a big difference.
        i. Examples of graduates projects brought to an interview allow them to make a much better assessment of applicants and their skills

      ii. Don C. – Portfolio with real-world examples
     b. Arron – More experience on how to setup a mapped drive and e-mail setup.
       i. Copies of Acme project to committee members
   5. Specific Ancillary skills or knowledge (such as accounting, statistics, calculus)
     a. Things that might flesh out a liberal arts programming degree
       i. Jacob – People/soft skills "How to Win Friends and Influencing People"
   6. Data Informatics (Data mining/statistics)
     a. No comments
  ii. Infrastructure Cabling skills (UTP/COAX/fiber optic)
   1. Look at working with the Electrical department
   2. Jacob – It would be super helpful for them to have skills for the point where electricians stop, and technicians connect
     a. Use of a cable connector
     b. Fiber optics – polarity
   3. Don C – We can do more with the cable testing in Net 4, but the fiber-optics are something that we might need to bring additional demonstration resources in
     a. Brian has some good contacts at Midco – They could be helpful for cabling, coax, and fiber skills.
  iii. Video conferencing skills in general – Brian W.
   1. Nothing specific beyond end-user experience
   2. Not just Zoom, but Teams, Google Meets, etc.
   3. Meeting controls, handovers, screen sharing
   4. Zoom meeting Etiquette
   5. Security around meetings online
     a. Passcodes
     b. Encrypted traffic
     c. Zoom bombing
4. Questions/Answers
  a. Brian W – Current instructional environment and Covid Protocols
   i. Mix of protocols
    1. Don C's classes have been in person
    2. Mark has been synchronous Zoom. In person Spring 2022 semester.
    3. Don F has been synchronous Zoom
    4. Faculty must have proof of vaccination or tested weekly
    5. Student seating charts – COVID case tracking
    6. Masking on campus
    7. For students in quarantine, Don will support via recorded session.
5. Grant Form – Request for Support
  a. Support form letter

      b. Administration would like, if they could, organizations to complete and return grant form support letter.
            i. Josh and Brian are interested
                  1. We will send it out to all attendees
6. Thank committee for attendance and valuable information.
7. Motion to Adjourn – Jacob Bakke
      a. Seconded – Don Campbell
      b. Motion carried unanimously

-Respectfully submitted by Mark Meuleners.