

**NETWORK TECHNOLOGY ADVISORY COMMITTEE - MINUTES**

**Tuesday, February 9th, 2021 \* 3:00-4:30pm**

**Zoom Online**

**Members Present:** Brian MacKay (Committee Chair), The Columbian Publishing Co.; Eric Olmsted (Vice Chair), On Line Support; Steve Bohling, Clark PUD; Eric Cowen, Columbia Machine; Ryan Fanning, University of Western States; Michael Jaeger, Open to Industry; Patrick Rancore; Windstream; Jim Schafer,

**Members Absent:** Eric Hazen, ieSolutions; Brian Page, Fortinet; Steve Redman, EHFNET.WORKS

**Clark College:** Dwight Hughes, Network Technology Department Head; Armetta Burney, Interim Dean – WPTE; Kathy Chennault, Foundation; Michael Tucker, Professor; Bruce Elghort, CTEC Instructor; SueAnn McWatters, Advisory Committees Coordinator

The meeting was called to order at 5:05pm and introductions were made.

**MINUTES OF THE PREVIOUS MEETING**

The minutes of May 26th, 2020 were presented: Michael Jaeger made a motion to approve, Ryan Fanning seconded and was unanimously approved.

**NEXT MEETING DATE**

The committee will meet next on **Tuesday, May 11th, 2021 at 3:00pm**

**OFFICE OF INSTRUCTION UPDATES AND LAND ACKNOWLEDGEMENT**

Armetta Burney made the following announcements:

The college is going through some structural changes. STEM and Workforce Professional and Technical Education are under the same umbrella.

We have a new President Dr. Karin Edwards.

The college is still in a budget shortfall. Student enrollment is not matching what targets are. We are expecting a $2.2 million budget deficit. We are also anticipating that the legislature will put all budgets for state agencies on hold. Good news is that we do have some CARES funding to help close the gap.

Instructional changes have occurred due to COVID 19. Many courses are being taught remotely. Heavy hands on programs like Automotive, Welding, Healthcare programs, Diesel, Mechatronics, Cuisine, and Surveying have been given permission to continue conducting labs in a face-to-face modality. All lectures are being taught remotely.

**PROPOSED NTEC DEGREE CHANGES**

The two NTEC degrees have become very similar. One in Network Technology, which is a mixture of Microsoft, Linux, and Cisco; and a Cisco’s Technology that focuses on Cisco, a bit more cloud. Only two classes differentiate them.

**Proposal: Retitle and repurpose the Cisco AAT degree to focus on cloud technologies, becoming more differentiated from the NTEC AAT degree.**

Cloud technology is already taught, with 10% of the current Cisco AAT degree major area requirements focused on it. Additional coursework covers cloud, software defined, automation, programing/scripting, and other cloud topics as part of many of the courses. There is unmet industry trends, demands, and needs around teaching cloud technologies. Requiring more knowledge of programming languages, scripting, software defined, and other advanced concepts. The Cisco and NTEC degrees are not clearly differentiated. There is a difference of only two courses between Cisco Technologies AAT and the Network Technologies AAT degrees. Over the years of repeated cycles of budget reductions Clark College eliminated the Microsoft AAT degree, eliminated the Cisco CCNP 1yr Certificate of Achievement program, and more. This has resulted in the gradual loss of differentiation between these degrees.

Michael Jaeger agreed that the more use of using agnostic courseware and making employees more adaptable is a great benefit to the industry. Brian MacKay also stated that they do not use Cisco. Ryan Fanning asked if the Cisco degree is removed, would it affect the college’s standing with Cisco being a certified Cisco Academy. Dwight Hughes stated that the only course being removed would be the Cisco CCNA Security. There is nothing that Cisco requires that the degree bear their name. The requirement is that they teach about Cisco equipment.

**Michael Jaeger made a motion to approve to refocus the Cisco AAT degree on cloud technologies at the spring meeting. Ryan Fanning seconded and was unanimously approved.**

**Proposal: Retire the three NTEC Courses that teach Microsoft Server 2-16 MCSA, replacing them with new courses focused on current Microsoft technologies.**

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| --- | --- | --- |
| **Current** | Courses | Industry Certification Alignment |
|  | NTEC 234 | Microsoft Server Admin 1 | Exam 70-740: Installation, Storage, and Compute with Windows Server 2016 |
|  | NTEC 235 | Microsoft Server Admin 2 | Exam 70-741: Networking with Windows Server 2016 |
|  | NTEC 236 | Microsoft Server Admin 3 | Exam 70-742: Identity with Windows Server 2016 |
|  |  |  |  |
| **Proposed** | Courses | Industry Certification Alignment |
|  | NTEC 237 | Microsoft Server Admin | Non-cert aligned training in MS Serv 2019 |
|  | NTEC 238 | Microsoft Azure Admin | Exam AZ-100: Microsoft Azure Infrastructure and Deployment |
|  | NTEC 239 | Microsoft 365 Admin | Exam MS-100: Microsoft 365 Identity and Services |

Microsoft has announced the retirement of the MCSA industry certification without a replacement for on-premise server administration. These courses no longer have an industry certification to be aligned to. There are newer trends in server services administration as things have rapidly moved to the cloud. Microsoft is focused on industry certifications for their cloud technologies. Changes to the NTEC degrees decided on now would take effect in Fall 2022. We will continue to teach the current MS Server 2016/19 MCSA courses until that time. Publishers have ceased selling the books we use in these courses. We have been informed that our lab and textbooks will no longer to be published in June 2021. Continuing to find course materials will become increasingly more challenging.

The committee discussed the importance of running server admins. Eric Olmsted had a few concerns and questions about the switch.

Dwight Hughes tabled this proposal to the next meeting to provide more insight.

**Proposal: Change all NTEC 6 credit (4 hours lab/4 hours lecture) courses to 5 credit (4 hours lab/3 hour lecture).**

We would be able to teach more topics. A lot of our curriculums are not as large as they used to be.

|  |  |  |
| --- | --- | --- |
| Course Credits |  |  |
| Current | Proposed |  |  |
| 15 | 15 | General Education Requirements |
|  |  | Major Area Requirements |
| 3 | 3 | NTEC 103 | IP Subnetting |
| 3 | 3 | NTEC 125 | Introduction to Cybersecurity |
| 3 | 3 | NTEC 142 | Cloud Computing Fundamentals |
| 3 | 3 | NTEC 151 | Linux Essentials |
| 6 | 5 | NTEC 161 | Network Scripting Fundamentals |
| 6 | 5 | NTEC 220 | Deploying Linux Server Services |
| 6 | 5 | NTEC 221 | Cisco CCNA 1 |
| 6 | 5 | NTEC 222 | Cisco CCNA 2 |
| 6 | 5 | NTEC 223 | Cisco CCNA 3 |
| 6 | 5 | NTEC 234 | Microsoft Server Admin 1 |
| 6 | 5 | NTEC 235 | Microsoft Server Admin 2 |
| 6 | 5 | NTEC 236 | Microsoft Server Admin 3 |
| 6 | 5 | NTEC 252 | Linux Administration 1 |
| 6 | 5 | NTEC 253 | Linux Administration 2 |
| 3 | 3 | NTEC 297 | Capstone Experience: Network Technologies |
| 90 | 80 | = TOTALS |   |

5 credit courses are more consistent with GenEd, CTEC, CBAS, and other departments across the college and nationally. 5cr courses solves a load issue for Clark College NTEC related to unbenefited adjunct teachers qualifying for benefits when teaching just one course. This change makes room for adding 10 credit of additional learning to the degree, allowing the expansion of entry level IT skills. This change removes 1 hour of lecture from a 6 credit course. Courses are still 4 hours hands-on lab, with lecture reduced by 1 hour. 6 credit NTEC courses are 4 hours lab/4 hours lecture. 5cr NTEC courses have 4 hours lab/3 hours lecture.

**Ryan Fanning moved to change all NTEC 6 credit courses to 5 credit courses. Michael Jaeger seconded and was unanimously approved.**

**Proposal: Fill the credit gap left from switching from 6 credits to 5 credits with new courses aligned to the Google IT Support Professional Certificate.**

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| --- |
| **Google IT Support Professional Certificate** |
|  | Industry certification aligned curriculum for entry level IT skills that parrallel the CompTIA A+ skills, specifically for call-center, remote support staff. |
|  |  |  |
| Credits | New Courses |  |
| 3 | NTEC 111 | Technical Support Fundamentals |
| 3 | NTEC 112 | The Bits and Bytes of Computer Networking |
| 3 | NTEC 113 | Operating Systems and You: Becoming a Power User |
| 3 | NTEC 114 | System Administration and IT Infrastructure Services |
| 3 | NTEC 115 | IT Security: Defense against the digital dark arts |

The gap left from switching 6cr to 5cr is 10cr. This cert would require 15cr to teach (according to the cert provider, Google). Would need to remove an existing 5cr course from the degree to make room, probably NTEC220 since we already have three other Linux courses in the degree.

This group of courses requires no prior experience or IT knowledge. It is designed to give learners the skills they need for an entry-level IT role. This group of courses could be bundled into a stackable 1yr Certificate of Achievement (CA). This group of courses could also be offered through our non-credit and qualify for Credit for Prior Learning (CPL). Already being taught at over 100 colleges and 400k enrollments since 2018.

These course are currently not offered at the college, so these would all be new. Students would be able to get their A+ taking these courses.

Dwight Hughes tabled the IT Support proposal to the next meeting to allow the committee to do more research.

**Proposal: Create a new CA (IT Support Technician) that aligns to the Google IT Support Professional Certificate courses added to the NTEC AAT degree.**

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| --- | --- |
| **IT Support Technician (CA)** |  |
|  | Proposed | Major Area Requirements |
|  | 3 | NTEC 103 | IP Subnetting |
|  | 3 | NTEC 125 | Introduction to Cybersecurity |
|  | 3 | NTEC 142 | Cloud Computing Fundamentals |
|  | 3 | NTEC 151 | Linux Essentials |
|  | 5 | NTEC 161 | Network Scripting Fundamentals |
|  | 5 | NTEC 221 | Cisco CCNA 1 |
|  | 5 | NTEC 237 | Microsoft Server Admin |
|  | 3 | NTEC 111 | Technical Support Fundamentals |
|  | 3 | NTEC 112 | The Bits and Bytes of Computer Networking |
|  | 3 | NTEC 113 | Operating Systems and You: Becoming a Power User |
|  | 3 | NTEC 114 | System Administration and IT Infrastructure Services |
|  | 3 | NTEC 115 | IT Security: Defense against the digital dark arts |
|  | 42 | = TOTALS |   |

Although the CA allows for as few as 20cr. Financial Aid will not fund a program of study less than 40 credits. This certificate is built around the year-one entry level coursework of the NTEC AAAT degree. This certificate program would train students for several industry certifications: Google IT Support Professional Certificate, Linux Essentials, CompTIA Cloud+, CompTIA Security+.

Dwight Hughes tabled this proposal to the next meeting as it follows on the proposal above.

**Proposal: Remove NTEC 220 from the NTEC AAT degree requirements, making room for the Google IT Support Professional Certificate courses.**

|  |  |  |
| --- | --- | --- |
| Proposed |  |  |
| 15 | General Education Requirements |
|  | Major Area Requirements |
| 3 | NTEC 103 | IP Subnetting |
| 3 | NTEC 125 | Introduction to Cybersecurity |
| 3 | NTEC 142 | Cloud Computing Fundamentals |
| 3 | NTEC 151 | Linux Essentials |
| 5 | NTEC 161 | Network Scripting Fundamentals |
|  | NTEC 220 | Deploying Linux Server Services |
| 5 | NTEC 221 | Cisco CCNA 1 |
| 5 | NTEC 222 | Cisco CCNA 2 |
| 5 | NTEC 223 | Cisco CCNA 3 |
| 5 | NTEC 234 | Microsoft Server Admin 1 |
| 5 | NTEC 235 | Microsoft Server Admin 2 |
| 5 | NTEC 236 | Microsoft Server Admin 3 |
| 5 | NTEC 252 | Linux Administration 1 |
| 5 | NTEC 253 | Linux Administration 2 |
| 3 | NTEC 297 | Capstone Experience: Network Technologies |
| 3 | NTEC 111 | Technical Support Fundamentals |
| 3 | NTEC 112 | The Bits and Bytes of Computer Networking |
| 3 | NTEC 113 | Operating Systems and You: Becoming a Power User |
| 3 | NTEC 114 | System Administration and IT Infrastructure Services |
| 3 | NTEC 115 | IT Security: Defense against the digital dark arts |
| 90 | = TOTALS |   |

The Google IT Support Professional Certificate proposal would result in the elimination of NTEC 220 from the NTEC AAT degree. With the elimination of NTEC 220 from the degree there are still three other Linux courses in the degree.

Dwight Hughes tabled this proposal to the next meeting as it follows the above proposals.

**Proposal: Update the Cisco CA to fill the credit gap left from switching from 6 credits to 5 credits and the elimination of the NTEC 220 course.**

|  |  |  |
| --- | --- | --- |
| Course Credits |  |  |
| Current | Proposed | Major Area Requirements |
| 3 | 3 | NTEC 103 | IP Subnetting |
| 3 | 3 | NTEC 125 | Introduction to Cybersecurity |
| 3 | 3 | NTEC 142 | Cloud Computing Fundamentals |
| 3 | 3 | NTEC 151 | Linux Essentials |
| 5 | 5 | NTEC 161 | Network Scripting Fundamentals |
|  |  | ~~NTEC 220~~ | ~~Deploying Linux Server Services~~ |
| 5 | 5 | NTEC 221 | Cisco CCNA 1 |
| 5 | 5 | NTEC 222 | Cisco CCNA 2 |
| 5 | 5 | NTEC 223 | Cisco CCNA 3 |
|  | 5 | NTEC 252 | Linux Administration 1 |
|  | 5 | NTEC 253 | Linux Administration 2 |
| 32 | 42 | = TOTALS |   |

Although the CA allows for as few as 20cr. Financial Aid will not fund a program of study less than 40 credits. The Google IT Support Professional Certificate proposal would force the elimination of NTEC 220 from the NTEC AAT degree. This would allow for three Linux courses in this certificate.

**Brian MacKay motioned to approve the swap out NTEC 220 and add in NTEC 252 and 253, Ryan Fanning seconded and was unanimously approved.**

**Proposal: Update the Microsoft CA to fill the credit gap left from switching from 6 credits to 5 credits and the change in MS Server courses.**

|  |  |  |
| --- | --- | --- |
| Course Credits |  |  |
| Current | Proposed | Major Area Requirements |
| 3 | 3 | NTEC 103 | IP Subnetting |
| 3 | 3 | NTEC 125 | Introduction to Cybersecurity |
| 3 | 3 | NTEC 142 | Cloud Computing Fundamentals |
| 3 | 3 | NTEC 151 | Linux Essentials |
| 5 | 5 | NTEC 161 | Network Scripting Fundamentals |
| 5 | 5 | NTEC 221 | Cisco CCNA 1 |
| 5 |  | NTEC 234 | Microsoft Server Admin 1 |
| 5 |  | NTEC 235 | Microsoft Server Admin 2 |
| 5 |  | NTEC 236 | Microsoft Server Admin 3 |
|  | 5 | NTEC 237 | Microsoft Server Admin |
|  | 5 | NTEC 238 | Microsoft Azure Admin |
|  | 5 | NTEC 239 | Microsoft 365 Admin |
|  | 5 | NTEC 252 | Linux Administration 1 |
| 37 | 42 | = TOTALS |   |

Although the CA allows for as few as 20cr. Financial Aid will not fund a program of study less than 40 credits. Replacements of the proposed retired MS Server courses with the newer courses. This would allow for two Linux courses in this certificate.

Dwight Hughes tabled this proposal to the next meeting due to an above proposal.

**Proposal: Updates to course names, descriptions, add/remove courses.**

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| --- | --- | --- | --- |
| Course | Action | Current | Proposed |
| NTEC 221 | Change Course Title | Cisco CCNA 1 | Introduction to Networks |
| NTEC 222 | Change Course Title | Cisco CCNA 2 | Switching, Routing, and Wireless Essentials |
| NTEC 223 | Change Course Title | Cisco CCNA 3 | Enterprise Networking, Security, and Automation |
| NTEC 225 | Change Course Title | Cisco CCNA Security | Network Security |

**UPDATES ON NTEC PROGRAM AND CYBERSECURITY**

The NTEC program is down 5% for student enrollment. This is now a good opportunity to look at the curriculum.

Dwight Hughes explained that Cybersecurity got off to a great start with 48 students filling both cohorts.

There are plenty of adjuncts filling in all of the courses.

**POST COVID PLANNING**

On the east side of Vancouver, we have a building called the Columbia Tech Center that houses a few labs and classrooms. It has now been changed to Clark East Campus. NTEC has a room that the college is investing in to remodel.

**INDUSTRY NEEDS FOR ASSOCIATE’S AND BACHELOR’S DEGREES**

**DISCUSSION – INDUSTRY PERSPECTIVES**

The meeting was adjourned at 6:10pm.

Prepared by SueAnn McWatters