NETWORK TECHNOLOGY TECHNICIAN CAREER LAUNCH PROGRAM PROPOSAL

Clark College & On Line Support Partnership

Partners

Clark College

On Line Support

INSTITUTION **CLARK COLLEGE**

PROPOSED PROGRAM **NETOWRK TECHNOLOGY TECHNICIANCAREER LAUNCH PROGRAM**

PROGRAM CIP **11.0901**

PLAN CODES **CSTNTAPT, CSTMTC20**

NAICS Code **517110**

Please note: Registered Apprenticeship programs become automatically endorsed for Career Launch. You need not submit an application.

CONTACT INFORMATION

Name: Genevieve Howard

Title: Interim Vice President of Instruction

Address: 1933 Fort Vancouver Way, BHL 126 Vancouver, WA 98663

Telephone: 360.992.2621

Fax:

Email: ghoward@clark.edu

Genevieve Howard
Chief Academic Officer

5/10/2021
Date

Application contact:

Scott A. Copeland
Associate Director, College Relations and Policy Guidance
Education Division
Washington State Board for Community and Technical Colleges
Office: 360-704-4397
Cell: 360-791-6026

Applications reviewed monthly and are due the first business day of the month.

Electronic submissions only to scopeland@sbctc.edu

Program Checklist

P1. Program description including length of program in years and total hours (including split between classroom and worksite).

Program Description: Network Technology involves the use of data systems to manage and deliver digital resources over a computer network. A variety of industries use computer hardware and system software that maintains a network, creating a need for specialists to manage them. The Information Technology (IT) industry is one of constant change and evolution. Clark's Network Technology program prepares students to work with these evolving technologies by providing extensive hands-on, real-world learning. Students in Clark's program learn to plan, design, implement, maintain, and troubleshoot small-to-large scale computer networks. The partnership between Clark College and On Line Support provides students a cooperative work experience with the On Line Support while attending school. The two-year program leads to an Associate's Degree and employment throughout the program. Participants are employees of On Line Support and students at Clark College in the Network Technology Program at the same time.

Length of Program: 6 quarters, 18 months.
Total Hours: 1,250 Hours.

P2. Estimated number of hours per week at worksite and in classroom (this approach may shift throughout the program).

Hours per week at worksite: 20 hours.
Hours per week in classroom: 9 hours in classroom; 11.8 hours in structured lab environment.

P3. Demonstration of labor market demand for specified skills/career in local region

The Network Technology Career Launch Program addresses the occupations within Network and Computer Systems Administrators (15-1244) and Computer Systems Analysts (15-1211).

Within Clark College's three county service district (Clark, Skamania, and Klickitat counties), there were 1,026 jobs in 2021, which is anticipated to grow by 11.3% in the next 10 years. Historically, the average number of completions are not keeping up with the demand, with only 44 total annual completions, for 78 annual openings. This has increased, where during January 2021 – April 2021, there were 220 monthly unique job postings, with only 28 average monthly hires – indicating a significant competition for high-quality applicants to meet industry demands.

Clark College is located within the Portland-Hillsboro-Vancouver metropolitan area, which means that the economic region includes a broader six county region (Clark, Skamania, Klickitat, Multnomah, Washington and Clackamas). Within this economic region, there were 9,427 jobs in 2021. During January 2021 – April 2021, there were 2,207 monthly unique job postings, with only 244 average monthly hires.

Therefore, the Network Technology Technician Career Launch Program creates intentional career pathways for new and incumbent workers to address this workforce shortage.

P4. Projected count of student enrollment, student completion, and anticipated employer participation for 5 years, post-pilot.

	Baseline Wi 20 – Fa 20	**Year 1** (2021-2022)	**Year 2** (2022-2023)	**Year 3** (2023-2024)	**Year 4** (2024-2025)	**Year 5** (2025-2026)
Student Headcount	102	107	112	118	124	130
Full-Time Equivalent Student (FTES)	53	56	57	61	64	68
Completion	26	27	29	30	32	34
Employer Participation	1	1	1	2	3	3

With this partnership, in Year 1, 1-2 Network Technology students will participate in the Career Launch partnership at Clark College, with additional cohorts added each year, depending on employer demand and capacity. To expand opportunities for Network Technology students, Clark will continue to cultivate additional employer partners that can maximize student participation in the paid employment opportunity. On-the-job-training (OJT) is an important opportunity for students. We plan to expand our employer partners, make OJT a required part of the degree, and continue to add and change the degree to stay aligned with industry and area employer needs for skills acquisition.

P5. Concise description of development process to create the Career Launch program (e.g., who was involved, when, how was the program piloted, etc.)

The Network Technology Associate Degree Program (AAT) was started to support the needs of area employers who were experiencing a growing need for skilled IT (Information Technology) employees. Both state and national employment data showed a strong and long term demand for these skills, as well as our local industry advisory committee who were expressing difficulty finding employees with these skills.

Since its inception our graduates have been consistently placed in successful IT career jobs in the communities we serve. Now over a decade since inception we have many former students that are hiring managers, executives, and business owners themselves that now routinely look to us for their next hires. The future is bright for this high tech program meeting the growing IT needs in our area.

Online Support has been a member of our Industry Advisory Committee since the inception of the Network Technology Associate Degree Program (AAT). This degree embodies skills they need and asked us to teach and over the years they have consistently helped shape the program, have hired many graduates form it, provide paid internships, and also job shadow experiences. They have expressed that as long as this program is at Clark College they consider it their priority source for new IT employees with the skills they require.

Network Technology Associate Degree Program (AAT) department chair, professor Dwight Hughes, has been on-site with Online Support and spent a day long job shadow experience to observe first-hand how the skills he teaches are being applied on the job. This feedback loop of teachers learning from the employer, and employer listening to and supporting the teachers, and new graduates volunteering feedback on their most and least important skills learned has over the years built a relevant technology program that continues to be responsive to employer needs for the skills they need in the local workforce.

P6. Signed letter of endorsement from all relevant partners, stakeholders and regional networks (including employers, labor organizations, academic institutions, community-based organizations, individuals, and other relevant stakeholders in support of the proposed Career Launch program). Regional network endorsement preferred.

Letters enclosed on subsequent pages are from the following partners:

- Clark College
- Educational Service District 112 (Regional Network)
- Career Connect Southwest Washington

On Line Support endorsement of the Career Launch Program are included in Employer Commitment Letters for I-R9 on Page 13.

CLARK COLLEGE
EST. 1933

May 10, 2021

To the Career Launch Endorsement Review Team:

I write this letter to affirm Clark College's institutional commitment to the Network Technology Technician Career Launch Program, with the initial partnership with On Line Support. This program provides students with industry-defined curriculum and meaningful, high-quality on-the-job experience during their educational experience.

I am proud to say that this program also supports Clark College's strategic plan in the core themes of academic excellence, social equity and economic vitality as well as the values of social justice, partnerships, and innovation. The Network Technology Technician Career Launch Program exemplifies this commitment through implementation of this creative and agile strategy to enhance student learning, and alignment of the Network Technology Program to meet regional workforce needs.

The Network Technology Technician Career Launch Program is applying for endorsement between Clark College and On Line Support. Students concurrently enroll in the Clark College Network Technology Program and work at On Line Support. To ensure that all students have the resources to address academic and non-academic issues, Clark College provides dedicated wrap-around student support to meet their individualized needs. This comprehensive program, with intentional integration of course curriculum and work-based learning opportunities to successfully enter the workforce with the knowledge, skills and abilities to be successful as a network technology technician.

Building on the intensive industry collaboration with On Line Support, the partnership between Clark College and On Line Support will provide additional career pathways for students to support local industry. Upon endorsement, all levels of leadership here at Clark College are confident that the implementation will continue to support the region's need for network technology technicians well into the future.

Sincerely,

Dr. Karin Edwards
President
Clark College

EDUCATIONAL SERVICE DISTRICT 112

To the Career Launch Endorsement Review Team:

ESD 112 is excited to support the Network Technology Technician Career Launch Project, with collaboration between Clark College and On Line Support.

At ESD 112, we recognize the need for

- Private/public partnerships that provide students with a career pathways that also provide competitive candidates to meet our business needs
- Meaningful, high-quality on-the-job experience, with defined competencies and skills gained through experience.
- Curriculum developed in partnership with employers and industry, to ensure state-of-the-art curriculum is aligned with occupations in-demand.
- Dedicated wrap-around student support to ensure students have the resources to be successful in academic and non-academic issues.
- Alignment of pathways from K-12 through postsecondary education and career trajectory.
- Career pathways for incumbent workers to upskill for career trajectory.

The Network Technology Technician Career Launch Project is an exemplary program, providing students with meaningful, high-quality on-the-job experience that is concurrent with aligned academic curriculum.

On behalf of ESD 112, we commit to working with the Network Technology Technician Career Launch Project to make this program successful in the following specific ways:

- Convene and support Career Connect Intermediaries and other local partners in the region
- Help them achieve their outcomes related to Career Launch endorsement and participation of young people in Career Launch activities
- Ensure equitable inclusion of youth of color, low income youth, youth from rural communities and youth with disabilities.

The impact of this program is vital to meeting our regional workforce needs and we support endorsement of this exemplary program.

Tim Merlino
Superintendent
ESD 112
360-952-3494 | tim.merlino@esd112.org
2500 NE 65th Avenue | Vancouver | WA | 98661

To the Career Launch Endorsement Review Team:

The Career Connect Southwest Network is excited to support the Network Technology Technician Career Launch Project, with partnership between Clark College and On Line Support.

At Career Connect SW, we recognize the need for:

- Private/public partnerships that provide students with a career pathways that also provide competitive candidates to meet our business needs
- Meaningful, high-quality on-the-job experience, with defined competencies and skills gained through experience.
- Curriculum developed in partnership with employers and industry, to ensure state-of-the-art curriculum is aligned with occupations in-demand.
- Dedicated wrap-around student support to ensure students have the resources to be successful in academic and non-academic issues.
- Alignment of pathways from K-12 through postsecondary education and career trajectory.
- Career pathways for incumbent workers to upskill for career trajectory.

The Network Technology Technician Career Launch Project is an exemplary program, providing students with meaningful, high-quality on-the-job experience that is concurrent with aligned academic curriculum.

On behalf of Career Connect SW, we commit to working with the Network Technology Technician Career Launch Project to make this program successful in the following specific ways:

- Support to analyze labor market
- Develop K-16 guided pathway aligned to jobs
- Recruiting and engaging private and public sector organizations
- Raise students' awareness of different career options
- Ensure equitable inclusion of youth of color, low income youth, youth from rural communities and youth with disabilities.

The impact of this program is vital to meeting our regional workforce needs and we support endorsement of this exemplary program.

Vickei Hrdina

Vickei Hrdina
Director of Career Readiness & STEM Initiatives
Teaching and Learning

P7. Description of resources, supports, or other processes to recruit and support students from underserved backgrounds; or create an implementation plan to do so.

With potential program expansion, the program will intentionally recruit students from underserved backgrounds with specific support from ESD 112 (Career Launch Regional Network), Workforce Southwest Washington (Career Launch Program Intermediary), as well as the NEXT Center (a comprehensive center serving young adults ages 16-24 that do not have a clear pathway to work, training or post-secondary education). These intentional partnerships aim to recruit participants that reflect the diversity in the community.

Once students enroll in the program, Clark College offers a variety of supports to assist students from marginalized populations in achieving their educational and professional goals – including the following:

- Appreciative Advising Model that supports students in a holistic manner. All new students are assigned an Academic Advisor who assists with academic and non-academic supports throughout their journey at Clark College.
- Workforce Education Services provides a variety of supports to assist low-income students to include, alternative financial aid, access to subsidized childcare, maintenance of public benefits while in school, emergency grants, and assistance in preventing homelessness. Students receive assistance in barrier removal and connections to internal and external resources.
- Disability Support Services (DSS) office assist students with disabilities in pursuing their educational goals. Clark College is committed to assuring that its services, programs, and activities are accessible to individuals with disabilities.
- The Office of Diversity and Equity is committed to serving marginalized populations. The Diversity Center, is a safe space for students to study, meet new people and experience a sense of belonging.
- The Penguin Pantry supports a healthy college community by reducing hunger on campus and connecting students to essential resources.
- Career Services provides a wide array of resources that can assist students with job search skills and securing full-time employment and internships. There are a variety of Student Success Workshops that are offered throughout the academic year to assist students with their professional development, academic success and personal development.

Industry-Related Checklist

I-R1. Address of worksite(s) where Career Launch students will complete supervised training.

On Line Support
11802 NE 65th St #101
Vancouver, WA 98662

I-R2. Hourly wage for Career Launch participants.

Participants start at $15/hour. This usually includes increase pay rates as skills advance.

I-R3. List of entry-level positions and associated job descriptions for which a Career Launch student would be eligible for upon completion.

LEVEL 1 TECHNICIAN

On Line Support, Inc., an award-winning technology consulting and computer support company is looking for a Desktop Support Technician. We are a small firm, 20 employees, celebrating 23 years serving the needs of small to medium businesses in the Portland/Vancouver metro area. Our customers rely on us to provide responsive, professional, customized service, with a positive attitude, and we take pride in doing just that. Our team is a close-knit group that relies on each other for idea-sharing and problem-solving to come up with the best possible solution for our customers.

JOB DUTIES:

On-site and Remote support of Microsoft Windows and Mac operating systems. Troubleshoot and repair hardware and software issues; virus/spyware cleanup; systems repair and upgrades; software upgrade and installation; install and troubleshoot peripheral devices (printers, scanners, cameras, etc.); You will also need to document changes to the networks / computers that you work on to facilitate communication to other technicians. Excellent communication skills with customers and other technicians is a requirement of the job.

TECHNOLOGY SKILLS:

- Expert knowledge of Microsoft Windows and Mac operating systems
- Microsoft Office 365 applications
- Network troubleshooting knowledge/experience (wireless, routers, VPN)
- Remote office troubleshooting (Remote desktop connection, Zoom, Teams),
- General hardware/software troubleshooting
- Experience with ConnectWise or other Professional Services Automation software a plus

On top of that you'll need to be bi-lingual in both geek speak and regular Joe tech talk so you can communicate with both your fellow technicians, vendors and the customers who will rely on you. You must get a kick out of solving problems, finding solutions, and giving such excellent customer service that your customers will swear you're their hero. In this position you will be supporting our customers over the phone and on site so local travel is required.

I-R4. List of specific skills and competencies required for completion of Career Launch program, with demonstrated alignment to entry-level positions, job descriptions, and average local salary ranges.

Course	Professional Competency
IP Subnetting (NTEC 103). Covers the Internet Protocol (IP) numbering systems IPv4 and IPv6. Includes the following concepts: calculation and converting numbers between DECimal, BINary, and HEXadecimal number systems; understanding the meaning of IP numbers, the purpose/role of the various parts of the number, types/classes of numbers; understanding how to subnet these number ranges using both traditional and VLSM approaches; create supernets, summary routes, and hierarchical addressing schemes.	
Introduction to Cybersecurity (NTEC 125). Builds an understanding of network security topics including how hacker attacks are carried out and how to select the right security solutions for each type of risk. Students learn to create clear and enforceable security policies and to keep them up to date; to establish reliable processes for responding to security advisories; to use encryption effectively and recognize its limitations; to secure networks with firewalls, routers, and other devices; and to prevent attacks aimed at wireless networks.	
Cloud Computing Fundamentals (NTEC 142). Helps students build an understanding of the following Cloud Computing topics: technical understanding of the foundations of Cloud Computing as compared to traditional IT; integrating Cloud Computing into IT infrastructure; creating economic value by implementing Cloud innovations; and integrating Cloud Computing into an organization's existing compliance, risk and regulatory framework.	CompTIA Cloud Essentials
Linux Essentials (NTEC 151). Explores the basics of Linux, the world's most popular operating system. Includes system administration skills (using the command line, how to configure a computer running Linux, and basic networking), basic open source concepts.	LPI (Linux Professional Institute) Linux Essentials
Network Scripting Fundamentals (NTEC 161). Network programming to build complex scripts that can easily scale to fit the needs of a network. Fundamentals of how to use libraries for SSH management of network hardware and write scripts to perform a number of network configurations. From a simple script with one connection and one command, to building a powerful script that can read multiple commands and multiple IPs from a file, prompt for user credentials, handle errors, and find specific devices.	
Deploying Linux Server Services (NTEC 220). Knowledge and skills for using LINUX Server OS to setup LAN/WAN connections and authentication; and to explore features of the network operating systems, such as FTP, email, web server, file server, print server, remote desktop, DNS, DHCP, and users and groups.	
Cisco CCNA 1 (NTEC 221). Introduction to the architecture, structure, functions, components, and models of the Internet, and other computer networks. Fundamentals to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.	Cisco CCNA Routing and Switching
Cisco CCNA 2 (NTEC 222). Learn the architecture, components, and operations of routers and switches in an enterprise network, how to configure VLANs, routing protocols; troubleshoot routers and switches; resolve common issues with networks. Part two of a three-course sequence to prepare for the Cisco CCNA Routing and Switching industry certification.	Cisco CCNA Routing and Switching

Cisco CCNA 3 (NTEC 223). Learn how to configure routers and switches for advanced functionality; to configure and troubleshoot routers and switches and resolve common issues in both IPv4 and IPv6 networks.Develop the knowledge and skills needed to manage a complex network. Part three of a three-course sequence to prepare for the Cisco CCNA Routing Switching industry certification.	Cisco CCNA Routing and Switching
Microsoft Server Admin 1 (NTEC 234). Covers installing and configuring Windows server; introduction to Active Directory Domain Services (AD DS), managing AD DS Objects, and automating AD DS Administrative; implementing Networking Services, Local Storage, File and Print Services, Group Policy, and Server Virtualization with Hyper-V.	MCSA (Microsoft Certified Solutions Associate)
Microsoft Server Admin 2 (NTEC 235). Covers the following: administration of Windows Server; Implementing a Group Policy infrastructure; managing User and Service Accounts; maintaining Active Directory Domain Services; configuring and troubleshooting DNS and Remote Access; installing, configuring and troubleshooting the Network Policy Server role; optimizing File Services; increasing File System Security; implementing Update Management.	MCSA (Microsoft Certified Solutions Associate)
Microsoft Server Admin 3 (NTEC 236). Covers configuration of advanced Windows Server services. Focus on implementing the following: Advanced Network Service, Advanced File Services, Dynamic Access Control, Network Load Balancing, Failover Clustering, Disaster Recovery, AD CS And AD FS.	MCSA (Microsoft Certified Solutions Associate)
Linux Administration 1 (NTEC 252). Builds on the skills learned in NTEC 151 - Linux Essentials course. Covers the following: system architecture, Linux installation and package management, GNU and UNIX commands, devices, Linux file systems, and file system hierarchy standards.	COMPTIA LINUX+/LPI (Linux Professional Institute) LPIC-1
Linux Administration 2 (NTEC 253). Builds on the skills learned in the NTEC 151 and NTEC 252. Covers the following: shells, scripting and data management, interfaces and desktops, administrative tasks, essential system services, networking fundamentals, and security.	COMPTIA LINUX+/LPI (Linux Professional Institute) LPIC-1

For the aligned positions, the entry-level hourly wage (10^{th} percentile for occupation) is $26.21 for the Clark, Skamania, and Klickitat counties region. The wage progression includes $31.28 ($25^{th}$ percentile) and $39.07 (median hourly wage).

I-R5. Employer attests that Career Launch program is in compliance with required federal, state, and local regulations.

Attestation is included in On Line Support Employer Letter (See I-R9, page 13).

I-R6. Employers will outline a student supervision and mentorship model.

Employer agrees to provide exemplary supervision of participating student employees:

1. Provide job orientation concerning network technology procedures during scheduled work hours.
2. Provide training, guidance and supervision of the intern/extern.
3. Assign sufficient quality work (based on technical evaluation areas) to occupy the intern during scheduled hours.
4. Accurately complete time sheets and list accomplishments of the intern/extern on a regular basis.
5. Adhere to all health and safety codes.
6. Evaluate the intern's/extern's progress at appropriate points during his or her work-based learning/externship.

I-R7. Description of common career pathway(s) beginning with entry-level position specified with demonstration of likely salary growth over specified time period.

For students interested in pursuing a management position (e.g., Service Manager), Clark College offers a Bachelor of Applied Science in Applied Management degree. This degree builds on the Associate of Applied Technology (AAT) degree to provide the managerial knowledge and expertise to meet industry demand. This includes, but is not limited to the following: Foundations of Management; Social Media in Business; Organizational Communication; Organizational Behavior; Business Principles; and Accounting Principles for Managers.

For students interested in pursuing a Bachelor's Degree, the Cybersecurity Bachelor of Applied Science (C-BAS) provides students with a seamless pathway into cybersecurity occupations.

I-R8. Demonstrated competency alignment with relevant professional standards for specified entry-level positions when applicable.

Professional standards for Network Technology professionals is based on industry certifications that define knowledge, skills, and abilities required of network technology entry-level positions. As part of the degree pathway students can obtain five (5) network technology industry certifications:

1. CompTIA Cloud Essentials
2. LPI (Linux Professional Institute) Linux Essentials
3. Cisco CCNA Routing and Switching
4. MCSA (Microsoft Certified Solutions Associate)
5. COMPTIA LINUX+/LPI (Linux Professional Institute) LPIC-1

Specific alignment of individual courses and course sequences to the industry certifications are included in IR-4.

I-R9. Signed letter from employer partner.

Displayed on Page 13.

On Line Support
TECH SOLUTIONS

May 13, 2021

To the Career Launch Endorsement Review Team:

On Line Support is pleased to collaborate with Clark College and its Network Technology program to join as an employer partner in the Network Technology Technician Career Launch Program. This partnership between Clark College and On Line Support will provide students with meaningful, high-quality on-the-job experience that is concurrent with aligned academic curriculum.

Located in Vancouver, Washington, On Line Support provides enterprise level technology consulting and management services for small to medium sized business in the Pacific Northwest. This includes services in network management, server maintenance and deployment, help-desk support, proactive monitoring, security services, cloud computing, project management, technology consulting and much more. Like other employers in the region, we find it challenging to find employees with the education, skills, and abilities needed to grow our company. We believe that this Network Technology Technician Career Launch partnership will produce an additional workforce with needed skills and hands-on experiences.

Within the endorsed program, On Line Support commits to partnering in the Network Technology Technician Career Launch Program to make this program successful in the following specific ways:

- Compliance with required federal, state, and local regulations for the Network Technology Technician Career Launch Program;
- Recruitment of students into the program through community partnerships with K-12, Clark College, and community-based organizations;
- Provide exemplary student supervision and mentorship that allows program participants to gain confidence and skills needed to successfully transition into the workforce;
- Completers of the program will have the knowledge, skills, and abilities for the Network Technology Technician;
- Consider using the program as an option to skill up our own employees; and
- Provide program participants with the career advancement opportunities, as applicable.

Regional industry needs employees with fundamental network technician competencies. We stand as a partner with Clark College to expand the best Network Technology Technician Career Launch Program that will fully support industry and future workforce needs. This program clearly supports our mission, too. By helping to provide students with the knowledge and exposure to industry needs and an early awareness of educational and career pathways, support of this Career Launch program offers On Line Support an opportunity to identify high-quality potential graduates with work-ready network technician skills.

Sincerely,

Eric W. Olmsted

President/CEO

11802 NE 65th St, Suite 101, Vancouver, WA 98662 www.on-line-support.com 360.993.0600 503.227.0442

Academic-Related Checklist

A-R1. List of academic institution(s) providing career-aligned instruction for Career Launch program.

Clark College

CTE Dual Credit is articulated with Cascadia Tech for secondary school students in Network Technology. Specifically, this includes:

- NTEC 103 IP Subnetting (3 Credits). Covers the Internet Protocol (IP) numbering systems IPv4 and IPv6. Includes the following concepts: calculation and converting numbers between DECimal, BINary, and HEXadecimal number systems; understanding the meaning of IP numbers, the purpose/role of the various parts of the number, types/classes of numbers; understanding how to subnet these number ranges using both traditional and VLSM approaches; create supernets, summary routes, and hierarchical addressing schemes.
- NTEC 221. Cisco CCNA 1 (6 Credits). Introduction to the architecture, structure, functions, components, and models of the Internet, and other computer networks. Fundamentals to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Part one of a three-course sequence to prepare for the Cisco CCNA Routing and Switching industry certification.

A-R2. Curriculum scope and sequence aligned to skills and competencies provided in employment checklist.

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Design Windows and Linux networks to meet specific business needs.
- Implement Windows and Linux networks to meet specific business needs.
- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.

Network Technology Course Sequence, Endorsed by Advisory Committee

General Education Requirements		
Communication Skills		
ENGL& 101	English Composition I [1]	5
or PTWR 135	Introduction To Applied Technical Writing	
Computational Skills		
PTCS 110	Professional Technical Computational Skills [2] (5 credits/units)	
OR		5
Any generally transferable computational course with Intermediate Algebra as a prerequisite		
Human Relations		
COLL 101	College Essentials: Introduction To Clark	2
Course Options		3
Major Area Requirements		
NTEC 103	IP Subnetting	3
NTEC 125	Introduction to Cybersecurity	3
NTEC 142	Cloud Computing Fundamentals	3
NTEC 151	Linux Essentials	3
NTEC 161	Network Scripting Fundamentals	6
NTEC 220	Deploying Linux Server Services	6
NTEC 221	Cisco CCNA 1	6
NTEC 222	Cisco CCNA 2	6
NTEC 223	Cisco CCNA 3	6
NTEC 234	Microsoft Server Admin 1	6
NTEC 235	Microsoft Server Admin 2	6
NTEC 236	Microsoft Server Admin 3	6
NTEC 252	Linux Administration 1	6
NTEC 253	Linux Administration 2	6
NTEC 297	Capstone Experience: Network Technologies	3
Total		**96**

A-R3. Demonstration of student supports (e.g. mentoring, advising, financial aid, tutoring) available for Career Launch students enrolled in the course.

There are a number of supports available to Career Launch students to assist them in achieving academic success at Clark College:

- Clark College has implemented the Appreciative Advising Model that supports students in a holistic manner. This is an intentional collaborative practice of asking positive, open-ended questions that help students optimize their education experiences and achieve their dreams, goals, and potentials. All new students are assigned an Academic Advisor who assists with academic and non-academic supports throughout their journey at Clark College.
- Peer Mentors Clark College Peer Mentor Programs provide an opportunity for students to help others connect to Clark College and community resources, navigate the college, and work toward academic goals.
- Student Success Programs offers a variety of supports to students to include: strategies for balancing classes, work and personal responsibilities, access to college and community resources, assistance with developing and achieving academic goals, and one-on-one support from the Clark College Student Success Coach.
- Tutoring Services is designed to provide individualized attention that facilitates student learning and academic success. Tutors will help students develop skills and confidence to become a stronger, more independent learner. Students who come in for tutoring may also access computers, software, handouts, reference materials, and other resources.
- Financial Aid is available to provide students with a variety of funding supports to help cover the cost of education expenses to include tuition, fees, books and supplies. The Financial Aid Office is available to assist students in understanding financial aid options, to include student loans, grants, work study and scholarships.

Clark has developed a new CTE recruiter position, housed within Transitional Studies, who provides specific outreach to underserved populations. This position will support a new Information Technology events that will provide hands-on activities to explore the field of Network Technology. Targeted outreach will be conducted that is geared towards underserved populations.

Each paid internship opportunity at On Line Support is provided to all students enrolled in the program of study, through class announcements and faculty/student interactions. To support students from underserved backgrounds to apply for the On Line Support internship position, students are connected with Career Services for the development of a high-quality industry resume, mock interviews, and resources to build confidence in preparing to meet with the industry partner. A major barrier to student access to internships is lack of social capital to make these connections, particularly for first-generation and low-income students. By establishing connections with employer partners, the goal is to minimize the barrier of student networking to secure this meaningful, high-quality paid internships that build critical work skills. Another barrier is 'imposter syndrome', where students lack confidence in their skills to meet employer needs. The Network Technology Program works to connect course-level learning outcomes with employer-defined competencies – particularly in alignment with the industry certifications that define knowledge, skills, and abilities required of network technology entry-level positions (i.e., CompTIA, LPI, Cisco, and MCSA). This intentional weaving of course competencies to work expectations alleviates some of the barriers to student skill perceptions and self-confidence.

Once a student is placed with the employer, faculty engage with employer to establish defined feedback loops on student performance, as well as opportunities to bolster curriculum to meet emerging needs. Quarterly check-ins provide support to underserved students populations, including retention in program and at employer site. This connection between employer and program faculty build a coordinated approach to ensuring underserved students are successful once placed into the meaningful, paid work experience. Additionally, a new "Workforce & Student Engagement Liaison" is currently in the hiring process. This position will provide a single point-of-contact to support employer and student

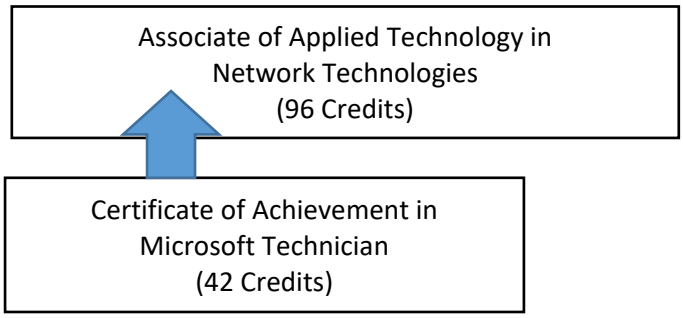
connections to these paid work experiences – including but not limited to recruitment into and support throughout the paid work experience. This position will also build out training on diversity, equity and inclusion principles for employers providing paid work experience. This training and support will educate employers about how to holistically support student interns – particularly those from underserved backgrounds.

A-R4. Number of postsecondary credits provided and / or credential earned upon completion of program.

Upon completion of the Associate of Applied Technology (AAT) Network Technologies degree, students will have earned:

- Associate of Applied Technology in Network Technologies (96 Credits)
- Certificate of Achievement in Microsoft Technician (42 Credits)

A-R5. Demonstrated curricular alignment with relevant professional and / or academic standards associated with coursework and credential, when applicable.



Upon completion of the Associate of Applied Technology (AAT) Network Technologies degree, students will have completed 15 credits of General Education Requirements, as required by accreditation through the Northwest Commission on Colleges and Universities (NWCCU):

- 5 credits of Technical Writing,
- 5 credits of Technical Math, and
- 5 credits of Human Relations

In addition, students complete 81 credits of network technology theory and lab skill development. As part of the degree pathway students can obtain five (5) network technology industry certifications:

1. CompTIA Cloud Essentials
2. LPI (Linux Professional Institute) Linux Essentials
3. Cisco CCNA Routing and Switching
4. MCSA (Microsoft Certified Solutions Associate)
5. COMPTIA LINUX+/LPI (Linux Professional Institute) LPIC-1

A-R6. Details of potential for current or future partnerships and/or scalability of the program within and across sectors and/or geographic locations (e.g. articulation, degree pathways), when applicable.

Once endorsed, this program plans to expand capacity with additional employer partnerships – particularly if expanded capacity (e.g., space and resources) were available.

Scalability. Clark College has engaged the active NTEC Advisory Board, which has multiple employers who have demonstrated interest in participation as employer partners to provide meaningful, paid work experiences through Career Launch. Clark College will maximize employer recruitment through the Clark College Foundation, Clark College alumni, Workforce Southwest Washington (WSW) and CREDC to identify potential industry partners. Additionally, a new Employer & Student Engagement Liaison is currently in the hiring process, with an intention of having this position in place October 2021. This position will support employer engagement, including leveraging existing partnerships and cultivating new employer relationships at the college – of which Career Launch is the pinnacle partnership to support our students.

Clark College is willing share lessons learned and partnership structure to other community colleges in the state interested in offering this program.