CLOVER PARK
TECHNICAL COLLEGE

COLLEGE CATALOG
2020-21

ADDENDUM

www.cptc.edu

Table of Contents

Catalog Addendum

This addendum details the changes made after the publication of the 2020-2021 catalog.

Change in Program Descriptions

The following program descriptions have been changed:

Associate in Pre-Nursing (Changes have been made to completion requirements and advising notes.)

Bachelor of Applied Science in Cybersecurity Degree (Changes have been made to the program prerequisites.)

Computer Programming Associate in Applied Science – T Degree (Changes have been made to the program prerequisites.)

Computer Programming Associate of Applied Technology Degree (Changes have been made to the program prerequisites.)

Cosmetology Associate of Applied Technology Degree (Changes have been made to the program course list and total credit hours.)

Electrician Low Voltage Fire/Security Associate of Applied Technology Degree (Changes have been made to the program descriptions.)

Electrician Low Voltage Fire/Security Certificate (Changes have been made to the program descriptions.)

HVAC - Associate of Applied Technology Degree (Changes have been made to the program descriptions.)

Mechatronics - Associate in Applied Science – T Degree (Changes have been made to elective requirements.)

Nondestructive Testing - Associate of Applied Technology Degree / Associate in Applied Science – T Degree (Changes have been made to elective requirements.)

Medical Assistant - Associate of Applied Technology Degree (The address for Commission on Accreditation of Allied Health Education Programs has been changed.)

Medical Histology Technician - Associate of Applied Technology Degree / Associate in Applied Science – T Degree (Changes have been made to the program prerequisites and descriptions.)

Pharmacy Technician Advanced - ASHP/ACPE Accredited Associate of Applied Technology

Degree (Changes have been made to the program course list.)

Pharmacy Technician Advanced - ASHP/ACPE Accredited Certificate (Changes have been made to the program course list and total credit hours.)

Surgical Technology - Associate of Applied Technology Degree (The address for Commission on Accreditation of Allied Health Education Programs has been changed.)

Associate in Pre-Nursing

DIRECT TRANSFER AGREEMENT/MAJOR RELATED PROGRAM (DTA/MRP)

Designed for the student who plans to transfer to a Bachelor of Science in Nursing (BSN) program at a four-year university, the Associate in Pre-Nursing offers a broad spectrum of academic courses that prepare students for upper-division coursework leading to the Bachelor of Science, Nursing degree (entry-to-practice/basic BSN). Pre-nursing graduates are prepared to apply to BSN programs at various institutions across Washington state, including the following baccalaureate institutions that are participants in this agreement with the community and technical college system: University of Washington, Seattle; Washington State University; Northwest University; Seattle University; Seattle Pacific University; Pacific Lutheran University; Walla Walla University; and the Washington State University Intercollegiate College of Nursing (WSU-ICN), a consortium whose members include Eastern Washington University, Gonzaga, and Whitworth. Associate degree transfers to WSU-ICN are admitted through WSU, not through the other consortium institutions.

Meeting the minimum requirements for this DTA/MRP does not guarantee admission a BSN program. Admission deadlines for transfer institutions vary, and students are required to meet the transfer admission deadline. Nursing-related programs are competitive and may require a higher GPA than a 2.0 overall. Minimum GPA requirements may vary among nursing programs.

It is recommended that students pursuing the Pre-Nursing degree contact their potential transfer institutions early in their program regarding specific course choices in each area where electives are listed.

To receive the DTA degree, students must have earned a

minimum of a cumulative college-level GPA of a least a 2.0 and have completed at least 90 quarter hours of transferable credit, including a minimum of 60 quarter hours of general education courses as shown below.

CPTC does not offer every course each quarter. It is the student's responsibility to discuss sequencing and work out their individual schedule with a program counselor, located in the Advising and Counseling Office. Any developmental coursework a student may be required to complete may increase the program length.

Program Length

This program is approximately six quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Summer, fall, winter, and spring quarters.

Completion Requirements

Prerequisite(s)

Students are required to be proficient in intermediate algebra, which is a prerequisite to the math courses included in this program. Individual courses may have prerequisites.

Program Course List

Communication (10 Cr.)

ENGL& 101	English Composition I	5
ENGL& 102	Composition II	5
ENGL& 235	Technical Writing	5

Walla Walla University requirement: The second English Composition course must be a research writing course. ENGL& 102, or equivalent, fulfills this requirement.

Quantitative and Symbolic Reasoning (5 Cr.)

| MATH& 146 | Introduction to Statistics | 5 |

UW Seattle requirement: Requires 5 additional credits in college algebra, pre-calculus, or logic.

Seattle University requirement: Requires 5 additional credits in college algebra or pre-calculus.

Humanities (15 Cr.)

Five (5) credits in Public Speaking, Interpersonal Communication, or Intercultural Communication

Ten (10) credits in other Humanities courses

CMST& 220	Public Speaking	5
	Humanities Elective	5
	Humanities Elective	5

Humanities Electives Available Through CPTC

ART& 100	Art Appreciation	5
ASL& 121	American Sign Language I Or	5
ASL& 122	American Sign Language II	5
HUM& 101	Introduction to Humanities	5
MUSC& 105	Music Appreciation	5

Note: Only one 100-level language course may be used to meet the humanities requirement.

Washington State University requirement: Requires curriculum that provides students with an understanding of and sensitivity to human diversity. The Humanities distribution area provides an opportunity to meet this requirement. For potential choices go to and select UCORE category "DIVR": https://ucore.wsu.edu/students/categoriesand-courses/#DIVR

Social Sciences (15 Cr.)

PSYC& 100DIV	General Psychology	5
PSYC& 200	Lifespan Psychology	5
SOC& 101DIV	Introduction to Sociology	5

Washington State University requirement: Requires curriculum that provides students with an understanding of and sensitivity to human diversity. The Social Sciences distribution area provides an opportunity to meet this requirement. For potential choices go to and select UCORE category "DIVR": https://ucore.wsu.edu/students/categoriesand-courses/#DIVR

Walla Walla University requirement: Requires a course in General Sociology.

Natural Sciences (35 Cr.)

BIOL& 160	General Biology w/Lab	5
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry	5
CHEM& 131	Introduction to Organic/Biochemistry	5
NUTR& 101	Nutrition	5

At the time of application when some of the course work may not yet be completed, University of Washington requirement: Requires a minimum cumulative GPA of 3.0 for three Natural Sciences courses or a minimum cumulative GPA of 2.8 for four Natural Sciences courses.

Electives (10 Cr.)

A specific elective course may be credited toward no more than one distribution or skill area requirement. A maximum of 5 elective credits may be in college-level courses as defined by CPTC, and the remainder shall be fully transferable as defined by the receiving institution. Select courses appropriate for intended major and intended bachelor's institution. Students should contact an advisor at the potential transfer institution regarding their interests and specific course choices.

	Elective	5
	Elective	5

College Success Course (3 Cr.)

COLL 102	College Success for All	3

Computer Literacy Course (3 Cr.)

	Computer Literacy	3
	Subtotal: 96	

University of Washington requirement: Requires 100 hours of healthcare experience.

Advising Notes

1. Due to high interest and limited space in BSN programs, admission to all BSN programs is highly competitive and therefore students should be informed that the Pre-Nursing DDTA/MRP is highly transferable to all Washington public and many Washington private baccalaureate institutions.

2. Students should check with their potential transfer institutions for admission requirements, some admission requirements may not be met by this DTA/MRP. Some transfer institutions may require additional courses before starting the BSN.

3. Some transfer institutions may require additional courses before starting the BSN.

4. Students must apply to graduate at the community or technical college to be awarded this DTA/MRP.

5. Many BSN programs recommend a public speaking course. Students should contact their transfer institution(s) to find out if a public speaking course is preferred.

6. Students are encouraged to consult with the transfer institution(s) regarding the Humanities courses that best prepare them for a BSN and for admission to the institution(s).

7. Students are encouraged to take courses that provide them with an understanding of and sensitivity to human diversity.

8. Introductory survey courses or review courses do not meet the content level expectations for the Natural Sciences distribution area. Six-credit courses may be used in place of five-credit courses in the Natural Sciences distribution area. Extra credits may apply toward the Electives distribution area.

9. In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses and other electives that best support or may be required as prerequisites to their nursing curriculum.

Bachelor of Applied Science in Cybersecurity Degree

CPTC's Bachelor of Applied Science in Cybersecurity (BAS-C) degree has been designed to meet the needs of students who want to become cybersecurity practitioners. Graduates would be candidates for positions as an Information System Security Officer, Penetration Tester, or Security Analyst.

In the BAS-C program, the approach to learning cybersecurity uses hands on tools in a realistic, practical context. Students will graduate with a practical understanding of cybersecurity concepts as well as experience with a current set of tools.

This degree is offered in a hybrid format with evening and weekend meetings to accommodate working adults.

Program Learning Outcomes

Upon successful completion of the Network Operations & Systems Security degree, students will be able to:.

- Assess the cyber risk of an information system and recommend mitigation.

Analyze identified malicious activity in order to mitigate effects and recommend security improvements.

- Create a cybersecurity vulnerability assessment of a small to medium business.

- Evaluate the security practices of an application/ IT project development team at any point in the system lifecycle.

- Implement security software or hardware.

- Research offensive and defensive cybersecurity trends and tools.

- Evaluate cloud security in public, private, and hybrid environments.

Program Length

A typical full-time student will complete the program in an estimate of 18 months. Half-time students should anticipate completion in an estimated 36 months. Full time students should plan to dedicate 45 hours per week to the program.

Admission Dates

Fall, Winter, Spring, Summer Quarters.

Completion Requirements

Prerequisite(s)

Admission to the Program

Admission to the program may occur when the following can be documented:

- Successful completion of an earned Applied Associate degree, AAS-T, Direct Transfer Associate degree or equivalent from a regionally accredited institution with a minimum GPA of 2.3.

- A minimum grade of 2.0 is required in all general

education coursework.

- 5 college-level credits in English Composition (ENGL& 101 or higher).

- 5 college-level credits in a transferable social science course.

- 5 college-level credits in a transferrable quantitative reasoning course.

- 5 college-level credits in a transferrable humanities course.

Admission to the Junior Year

Once admitted to the program, the following must be documented before students can move on to the junior year of the program:

- 5 4 credits of computer networking coursework.

- 5 4 credits of Windows Server coursework.

- 5 4 credits of Linux operating system coursework.

- 5 4 credits of cybersecurity coursework.

- 5 4 credits of computer programming.

Graduation Requirements

To successfully complete the degree, students must maintain a minimum grade of 2.0 in all coursework.

Program Course List

NOS 310	Cyber Threat and Research	5
NOS 315	Risk Assessment and Vulnerability Management	5
NOS 320	Securing Database Management Systems	5
NOS 325	Cloud Security	5
NOS 330	Vulnerability Assessment	5
NOS 335	Network Intrusion Detection	5
NOS 340	Penetration Testing	5
NOS 345	Incident Response	5
	Plus 5 credits from the list of Applied Project courses below	5
NOS 411	Incident Response Project Or	5
NOS 412	Penetration Testing Project Or	5
NOS 413	Network Intrusion Analysis Project	5

NOS 420	Capstone Project	5
ENG 310	Business Communications	5
PHIL 310DIV	Professional Ethics	5
MATH& 146	Introduction to Statistics	5
BUS 310	Project Management	5
PSYC 311DIV	Industrial & Organizational Psychology	5
ENGL& 235	Technical Writing	5
	Any Lab-Based Science	5
	Any Natural Science (5)	5
	Subtotal: 90	

NOTE:

If MATH & 146 has already been completed upon admission into the program, another college-level, transferable math course is required.

Lab-based Science Course Options

BIOL& 160	General Biology w/Lab	5
BIOL& 175	Human Biology w/Lab	5
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5
BIOL& 260	Microbiology	5
CHEM& 110	Chemical Concepts w/Lab	5
CHEM& 121	Intro to Chemistry	5
CHEM& 131	Introduction to Organic/Biochemistry	5
GEOL& 110	Environmental Geology with Lab	5
PHYS& 114	General Physics I with Lab	5

Non-lab Natural Science Course Options

NUTR& 101	Nutrition	5

Computer Programming Associate in Applied Science – T Degree

This program is designed to prepare students planning to continue their education at a college or university that offers a Bachelor's degree in Computer Science, Information Systems Management, Software Systems, or related field.

Program Learning Outcomes

Upon successful completion of the Computer Programming degree, students will be able to:

- Analyze programs in order to identify and fix defects.

- Document software and methods for technical staff and end users.

- Create an application with iterative software development as part of a team.

- Apply technical skills and standards when working with local industry partners or on a self-proposed project.

- Analyze the architecture of an object-oriented application.

- Develop a relational database's back end to support a front-end application.

General Degree Requirements

In addition to the program course requirements, students must also complete the general education requirements for the degree they seek to obtain.

Students pursuing an AAS-T degree for transfer to the University of Washington-Tacoma are required to take additional core academic classes that may or may not be offered at Clover Park Technical College. Please see your instructor for the latest articulation requirements.

Students pursuing an AAT or AAS-T degree must complete all college degree requirements prior to graduation. This includes courses that meet the requirements for diversity, computer literacy, and the capstone project.

Program Length

Classes will be offered with sufficient frequency that, with reasonable schedule planning, this program may be completed in seven quarters of full-time effort. It may take longer, depending on the student's prior educational preparation and the time it takes to satisfactorily complete all graduation requirements.

Admission Dates

Fall and spring quarters.

Completion Requirements

Prerequisite(s)

Successful completion of ~~ENG 091~~ENG 094 and ~~MAT 092~~MAT 094 or equivalent and basic competencies with personal computers, Windows- based word processing and spreadsheet software. Touch-typing proficiency of 35 words per minute is recommended.

Program Course List

ASL& 121	American Sign Language I	5
COLL 102	College Success for All	3

ENGL& 101	English Composition I	5
ENGL& 235	Technical Writing	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II, Functional Trigonometry	5
MATH& 146	Introduction to Statistics	5
	Introduction to Music or Introduction to Art	5
	Any Lab-Based Science	5
PSYC& 100DIV	General Psychology	5
	Or	
SOC& 101DIV	Introduction to Sociology	5
CPW 101CL	Programming Fundamentals	5
CPW 118	Web Design Principles	5
CPW 142	Java Object-Oriented Programming I	5
CPW 143	Java Object-Oriented Programming II	5
CPW 150	Principles of Relational Databases	5
CPW 205CAP	Object-Oriented Analysis & Design	5
CPW 210	Advanced Database Programming	5
CPW 218	C++	5
CPW 223	Introduction to JavaScript	5
CPW 240	Programming Practicum	5
CPW 245	Data & Logic Structures	5
CPW 252	Phone Programming	5
	Subtotal: 108	

NOTE:

PSYC& 100 or higher, but not PSY 112

MATH& 146 or higher

Computer Programming Associate of Applied Technology Degree

This program is designed to prepare students for computer programming and web development positions with concentrations in web programming, database programming, or application systems programming.

The coursework prepares individuals for positions such as .NET developer, ASP.NET web developer, application programmers, programmer/analysts, database designers, and other related information technology positions.

Employers may include business and industrial firms, banks and other financial institutions, government agencies, consulting firms, and software and web development companies.

Program Learning Outcomes

Upon successful completion of the Computer Programming degree, students will be able to:

- Analyze programs in order to identify and fix defects.

- Document software and methods for technical staff and end users.

- Create an application with iterative software development as part of a team.

- Apply technical skills and standards when working with local industry partners or on a self-proposed project.

- Analyze the architecture of an object-oriented application.

- Develop a relational database's back end to support a front-end application.

Included in this program are academic courses in communication, quantitative reasoning, and social sciences that provide knowledge and abilities upon which technical skills are built and personal development is enhanced. Students must take all the academic and programming core courses.

Completion Requirements

Prerequisite(s)

Successful completion of ~~ENG 091~~ENG 094 and ~~MAT 092~~MAT 094 or equivalent and basic competencies with personal computers, Windows- based word processing and spreadsheet software. Touch-typing proficiency of 35 words per minute is recommended.

Program Course List

COLL 102	College Success for All	3
ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5
PSYC& 100DIV	General Psychology	5
CPW 101CL	Programming Fundamentals	5
CPW 116	.NET Programming	5
CPW 118	Web Design Principles	5
CPW 142	Java Object-Oriented Programming I	5
CPW 143	Java Object-Oriented Programming II	5

CPW 150	Principles of Relational Databases	5
CPW 203	Advanced JavaScript	5
CPW 205CAP	Object-Oriented Analysis & Design	5
CPW 210	Advanced Database Programming	5
CPW 212	Advanced .NET Programming	5
CPW 213	.NET Web Programming	5
CPW 215	Advanced .NET Web Programming	5
CPW 217CAP	Portfolio	5
CPW 218	C++	5
CPW 223	Introduction to JavaScript	5
CPW 240	Programming Practicum	5
CPW 245	Data & Logic Structures	5
CPW 252	Phone Programming	5

Subtotal: 108

General Degree Requirements

AAT Degree General Education Requirements:

Included in this program are academic courses in communication, quantitative reasoning, and social sciences that provide knowledge and abilities upon which technical skills are built and personal development is enhanced. Students must take all the academic and programming core courses.

Students pursuing an AAT or AAS-T degree must complete all college degree requirements prior to graduation. This includes courses that meet the requirements for diversity, computer literacy and the capstone project.

Program Length

Classes will be offered with sufficient frequency that, with reasonable schedule planning, this program may be completed in six quarters of full-time effort. It may take longer, depending on the student's prior educational preparation and the time it takes to satisfactorily complete all graduation requirements.

Admission Dates

Fall and spring quarters.

Cosmetology Associate of Applied Technology Degree

Educating students in all aspects of professional cosmetology and hair design. Providing services to the hair, head, neck, or scalp. It includes conditioning treatments, haircutting, hairstyling, hair coloring, chemical texturizing services, and skin and nail care. Successful graduates are prepared for the Washington State Department of Licensing Cosmetology examination, and upon licensing will be qualified for positions as cosmetologists. Students will participate in realistic training in the student-operated salon. Clover Park Technical College uses an interactive system of training, utilizing hands-on applications, as well as up to 25 percent online training to support student learning. This model is considered a world leader in beauty education and provides innovative, high-quality educational systems that promote excellence in the hair and beauty industry.

Program Learning Outcomes

Upon successful completion of the Cosmetology degree, students will be able to:

- Generate salon-quality hair services to industry standards.

- Apply infection control principles, practices, and safety as mandated by state regulations.

- Develop a plan for successful business principles.

- Analyze client expectations during a consultation in the context of cosmetology art and science principles.

- Summarize the test standards and information in order to pass Washington State board examination for licensure.

Included in this program are academic courses in communication (English composition, speech), quantitative reasoning (math), social sciences (psychology, sociology), and COLL 102 that provide knowledge and abilities that enhance personal development and serve as a foundation for technical skills.

Employability Requirements

To qualify for a cosmetologist license from the Washington State Department of Licensing, a student must successfully complete the technical courses offered in the program options and pass both the written and practical examinations required by the Washington Department of Licensing.

Program Length

This program is approximately six quarters long, depending on the time students need to satisfactorily

complete all graduation requirements.

Admission Dates

Day Program: Summer, fall, winter, and spring quarters.

Accreditation

This school is licensed under chapter 18.16 RCW. Inquiries, concerns, or complaints regarding this school can be made to the Department of Licensing.

Mailing Address:
Professional Licensing Support Services
Department of Licensing
PO BOX 9026
Olympia, WA 98507-9026

Phone: 360-664-6645
Email: plssunit@dol.wa.gov

Program Note

COSMO 183, 189 and 233 will only be offered in the Fall and Spring quarters

Completion Requirements

Prerequisite(s)

A mandatory orientation is required prior to admission to the program.

Program Course List

COSMO 112	Infection Control Principles & Practices	2
COSMO 117	Trichology	4
COSMO 137	Application of Haircutting, Hairstyling, and Thermal Styling	13
COSMO 146	Chemical Texture Services	5
COSMO 147	Wet Styling and Long Hair Design	5
COSMO 159	Lab Clinic I	7
COSMO 163	Lab Clinic II	9
COSMO 167	General Science of Hair Coloring	6
COSMO 172	Lab Clinic III	10
COSMO 175	Cosmetology Salon Business Practices	3
COSMO 181	Artificial Hair	2
COSMO 183	General Science of Nails	7
COSMO 189	General Science of Skin	7
COSMO 226	Advanced Hair Coloring	8
COSMO 232	State Board Practical Preparation	6
COSMO 233	Lab Clinic V	6
COSMO 234	Lab Clinic IV	9
COSMO 237	State Board Written Test Review	2
COSMO 245CAP	Cosmetology Capstone	2
ENGL& 101	English Composition I Or	5
CMST& 220	Public Speaking	5
MAT 111	Math for Cosmo/Esth Professionals Or	5
	100-level math class	5
PSYC& 100DIV	General Psychology Or	5
SOC& 101DIV	Introduction to Sociology Or	5
PSY 112DIV	Psychology of the Workplace	5
COLL 102	College Success for All	3
	Computer Literacy Requirement	3

Subtotal: 128-134

NOTE:

MAT 111: preferred

Computer Literacy Requirements: Computer Literacy Course that meets the degree requirement, or successfully pass the computer literacy exam

COSMO 147 was missing in the 2020-21 College Catalog, and is added back to the course list in this addendum.

COSMO 233 is an optional course.

The total credit hours have been changed to 128-134.

Students not meeting state licensure hours requirements will take one or more of the following internship courses:

COSMO 248	Internship I	1
COSMO 250	Internship II	2
COSMO 252	Internship III	3
COSMO 254	Internship IV	4
COSMO 256	Internship V	5

Electrician Low Voltage Fire/Security Associate of Applied Technology Degree

Prepares students for positions in the electronic

fire/security industry as low voltage electrician apprentices, service technicians, or installers.

Students participate in hands-on training with advanced equipment, techniques, and programming related to burglar alarms, fire alarms, card access, and closed-circuit TV. The program prepares students for careers as alarm-system installers and service technicians.

Included in this program are academic courses in communication (English composition, speech), quantitative reasoning (math), and social sciences (psychology, sociology) that provide knowledge and abilities that enhance personal development and serve as a foundation for technical skills.

The Electrician Low Voltage Fire/Security Degree Program is approved as a Limited Energy (06) specialty electrical training program in the state of Washington. Upon successful completion of the program, graduates applying to become a Limited Energy (06) specialty electrician can be credited with 1,815 hours of work experience.

Program Learning Outcomes

Upon successful completion of the Electrician Low Voltage Fire/Security degree, students will be able to:

- Apply industrial safety standards at all times.

- Design an energized system to the specifications of the National Electrical Code.

- Produce a blueprint of a fire/security system including its wiring diagram.

- Construct a functioning security alarm system.

- Construct a functioning closed-circuit television system.

- Construct a functioning fire alarm system.

- Integrate biometric devices into existing systems.

AAT Degree General Education Requirements (18 credits)

ENGL& 101 English Composition or CMST& 220 (or higher)

Any 100 level math class

PSYC& 100DIV General Psychology (PSY 112DIV, SOC& 101DIV, or other humanities course that meets the diversity requirement)

COLL 102 College Success for All

Students pursuing an AAT or AAS-T degree must complete all college degree requirements prior to graduation. This includes courses that meet the requirements for diversity, computer literacy, and the capstone project. Students are required to pass seven nationally recognized certification exams during the program. All technical courses must be completed with a minimum "C" grade to receive the ~~certificate~~ degree.

Program Length

This degree program is approximately five quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Fall, winter, spring, and summer quarters.

Completion Requirements

Prerequisite(s)

Successful completion of the Electrician Low Voltage Fire/Security certificate, or by instructor's permission. A mandatory orientation is required before admission to the program.

Program Course List

EFS 105	AC/DC Electricity: Basic Theory, Fractions & Ohm's Law	7
EFS 106	AC/DC Electricity: Series Parallel & Combination Circuits	7
EFS 107	AC/DC Electricity: Electrical Power & Power Applications	7
EFS 108	National Electrical Code Print Reading	7
EFS 109	National Alarm Installer Training Program	7
EFS 110	CCTV Application & Design	7
EFS 118	National Electrical Codes	6
EFS 119	National Fire Codes	6
EFS 121	CCTV Field Service & Installation	7
EFS 124	Washington Administrative Codes	2
EFS 207	Addressable Fire SLC Systems/Design	7
EFS 211	Biometrics Access	7
EFS 216	Advanced Voice Evacuation Fire Alarm Systems	7

EFS 221	Fire Codes, NICET, NFPA	7
EFS 226	High Security Structured Cabling	7
EFS 231CAP	CCTV Digital Network Solutions	7
CMST& 220	Public Speaking	5
	Any 100-Level Math Class	5
PSY 112DIV	Psychology of the Workplace	5
COLL 102	College Success for All	3
	Computer Literacy	3
	Subtotal: 126	

Computer Literacy: Complete an approved computer literacy course or successfully pass the computer literacy exam

Electrician Low Voltage Fire/Security Certificate

Prepares students for positions as low voltage electrician apprentices specializing in the electronic fire/security industry as alarm-system installers and service technicians. Students participate in realistic hands-on training in the classroom on burglar alarms, fire alarms, card access, and closed-circuit TV.

Included in this program are academic courses in communication (English composition, speech), quantitative reasoning (math), and social sciences (psychology, sociology) that provide knowledge and abilities that enhance personal development and serve as a foundation for technical skills.

The Electrician Low Voltage Fire/Security Certificate Program is approved as a Limited Energy (06) specialty electrical training program in the State of Washington.

Upon successful completion of the program, graduates applying to become a Limited Energy (06) specialty electrician can be credited with 1,089 hours of work experience.

All technical courses must be completed with a minimum "C" grade to receive the certificate.

Program Length

This certificate program is approximately three quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Summer, fall, winter, and spring quarters.

Completion Requirements

Prerequisite(s)

A mandatory orientation is required before admission to the program.

Program Course List

EFS 105	AC/DC Electricity: Basic Theory, Fractions & Ohm's Law	7
EFS 106	AC/DC Electricity: Series Parallel & Combination Circuits	7
EFS 107	AC/DC Electricity: Electrical Power & Power Applications	7
EFS 108	National Electrical Code Print Reading	7
EFS 109	National Alarm Installer Training Program	7
EFS 110	CCTV Application & Design	7
EFS 118	National Electrical Codes	6
EFS 119	National Fire Codes	6
EFS 121	CCTV Field Service & Installation	7
EFS 124	Washington Administrative Codes	2
CMST& 220	Public Speaking	5
	Any 100-Level Math Class	5
PSY 112DIV	Psychology of the Workplace	5
COLL 102	College Success for All	3
	Subtotal: 81	

HVAC - Associate of Applied Technology Degree

Prepares students for positions in the heating, air conditioning, and refrigeration industry. Graduates will be prepared for entry-level positions as service technicians, building maintenance technicians, equipment assemblers, and start-up residential and light commercial installers. Students will participate in work-based training through realistic training activities on campus.

Included in this program are academic courses in communication, quantitative reasoning, and social sciences that provide knowledge and abilities that enhance personal development and serve as a foundation for technical skills.

This program is approved as an HVAC/Refrigeration (06A) specialty electrical training program in the state of Washington.

Upon successful completion of the program, graduates

applying to become an HVAC/Refrigeration (06A) specialty electrician can be credited with an estimated 960 hours of work experience. This program is not applicable to any other electrical specialty or sub-category.

Program Learning Outcomes

Upon successful completion of the Heating & Air Conditioning Refrigeration Service Technician degree, students will be able to:

- Employ modern practices used in the industry in order to fix and maintain heating, ventilation, air conditioning, and refrigeration equipment.

- Formulate solutions to common problems associated with heating, ventilation, air conditioning, and refrigeration equipment based on knowledge of traditional theory and formulas.

- Use HVAC/R diagnostic equipment and tools skillfully.

- Use industry safety and environmental standards at all times in the shop.

- Troubleshoot residential, commercial, and industrial heating, ventilation, air conditioning, and refrigeration systems in order to conduct repairs.

- Summarize the test standards and information in order to pass national HVAC/R certification tests.

Completion Requirements

Prerequisite(s)

None.

Program Course List

HAC 102	Basic Electricity	5
HAC 105	Electrical Circuits	4
HAC 120	Advanced Controls & Troubleshooting	4
HAC 162	Electric Motors & Their Applications	4
HAC 163	Refrigeration Controls	3
HAC 164	Electric Motors & Troubleshooting	3
HAC 169	Advanced Motor Theory	2
HAC 170	Heating I	7
HAC 175	Heating I Lab	5
HAC 181	Heating II	6
HAC 184	Heating II Lab	4
HAC 202	Advanced Refrigeration	10
HAC 230	EPA Refrigerant Certification	1

HAC 237	Basic Refrigeration I	7
HAC 242	Basic Refrigeration I Lab	5
HAC 246	Basic Refrigeration II	6
HAC 249	Job Readiness	5
HAC 255CAP	Basic Refrigeration II Lab	3
HAC 257CAP	Commercial Refrigeration/Advanced Refrigeration	7
	Computer Literacy Requirement	3
	Subtotal: 94	

Computer Literacy Requirements: Complete an approved computer literacy course or successfully pass the computer literacy exam

Note: *HAC 102-169 are prerequisites for Heating & Refrigeration.*

AAT Requirements

	Technical Course Requirements	94
	AAT General Education Requirements	18
	Subtotal: 112	

AAT General Education Requirements: See list above

Highly Recommended Class

(class could be taken while waiting to start the program)

CAS 105	Keyboarding	3

NOTE: CAS 105 or Orientation to Computers and MS Office

General Degree Requirements

AAT Degree General Education Requirements (18 credits)

ENGL& 101	English Composition I	5
	Or	
CMST& 220	Public Speaking	5
	Any 100-Level Math Class	5
PSYC& 100DIV	General Psychology	5
COLL 102	College Success for All	3

NOTE: CMST& 220 or higher

PSYC& 100DIV: PSY 112DIV, SOC& 101DIV, or other humanities course that meets the diversity requirement

Students pursuing an AAT or AAS-T degree must complete all college degree requirements prior to graduation. This includes courses that meet the requirements for diversity, computer literacy, and the capstone project. Students are required to pass seven nationally recognized certification exams during the

program. All technical courses must be completed with a minimum "C" grade to receive the ~~certificate~~ degree.

Program Length

This program is approximately four quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Summer, fall, winter, and spring quarters.

Mechatronics - Associate in Applied Science – T Degree

Mechatronics focuses on the convergence of mechanical, electrical and computer controls in complex systems and automation. It is a multidisciplinary approach combining mechanical engineering, electrical engineering, process control engineering, and software engineering into an integrated skill set for construction, repair, and optimization of complex industrial equipment. This makes it applicable to a wide range of growing industries including automation and robotics, advanced manufacturing, aerospace and transportation systems, process control, logistics and supply chain management, and agriculture. Modern life is filled with mechatronic systems: they clean the water you drink, manage the car you drive and are involved in the creation of nearly everything you see around you. Every industry employs some level of mechatronics.

Clover Park Technical College's AAS-T Mechatronics degree provides the skills needed to succeed in this exciting field. The program begins with courses that establish a solid base of technical skills and an understanding of the various disciplines that make up mechatronics as well as lean manufacturing and quality standards. Courses are taught with an eye toward linking disciplines together for larger mechatronic systems. Subsequent courses then build expertise in the foundational skills while increasingly integrating all skills into the design, construction, optimization, maintenance, and repair of full mechatronics systems. Students who complete the Mechatronics AAS-T Degree will also have the option to further their education by enrolling in our BAS in Mechatronics Engineering Technology and Automation (BAS- META), which is the first Bachelor's degree in mechatronics to be offered anywhere in the Pacific NW.

Program Learning Outcomes

Upon successful completion of the Mechatronics degree,

students will be able to:

- Employ safe practices while using fluid power, electrical, mechanical and control equipment.

- Analyze the transmission of power between electrical, mechanical and fluid power.

- Use digital and analogue controls on mechanical, electrical, fluid power, and hybrid systems.

- Construct complex machinery involving multiple forms of power and control.

- Troubleshoot mechatronic systems, including the complex interplay between different power and control variables.

- Validate new and emerging power, control, and communication technologies.

- Prioritize efficiency and environmental sustainability in mechatronic systems and processes.

- Prioritize social benefit from the perspective of mechatronic systems.

Completion Requirements

Prerequisite(s)

To enter the program, a student must be eligible to take college-level English and college-level psychology, or another social science or humanities course.

This program assumes that students will be able to enroll in, or will have passed, MATH& 141 by the start of the third quarter of the program. Any developmental coursework that a student may be required to take to achieve this may increase the program length and is not reflected in credit counts as shown below. Math sequences to meet this requirement must be planned with your advisor prior to program enrollment.

Students must be at least 17½ years of age at the start of the program.

Program Course List

Quarter 1 - Preparation

FSME 101	Workshop Safety	3
FSME 110	Quality Principles, Inspection and Test	4
FSME 114	Fabrication Fundamentals I	4
FSME 116	Fabrication Fundamentals II	4

Program Core

MEC 115	DC Circuits	5
MEC 116	AC Circuits	5
MEC 120	Computer Aided Design I	5
MEC 125	Hydraulics and Pneumatics	5
MEC 128	Applied Statics and Strengths of Materials	5
MEC 130	Electric Motors and Drives	5
MEC 132	Lean Manufacturing	5
MEC 135	Digital Electronics and Networks	5
MEC 140CL	Computer Programming and Logic	5
MEC 150	Mechanical Systems	5
MEC 160CL	Programmable Controls I	5
MEC 163	Industrial Survey	5
MEC 173	Applied Mechatronics	5
MEC 201	Systems Approach	5
MEC 289	Internship/Work Experience Or	5
MEC 290CAP	Mechatronics Capstone Project	5
	Mechatronics Technical Electives	5
	AAS-T General Education Requirements	23

Subtotal: 118

Mechatronics Technical Electives: See list below

AAS-T General Education Requirements: see list below

Technical Electives:

Students must take ~~10~~ 5 or more credits from the following courses. Other related courses may be approved by faculty.

MEC 121	Computer Aided Design II	5
MEC 165	Robotics	5
MEC 170	Sensors and Actuators	5
MEC 200	Programmable Controls II	5
MEC 210	Metrology and Calibration	5
MEC 220	Maintenance Management	5
MEC 281	Independent Study I	2-5
MEC 282	Independent Study II	2-5
MEC 289CAP		5

General Degree Requirements

All AAS-T degrees must have a minimum of 20 credits of transferable general education. Required credits include:

- 5 credits in communication: ENGL& 101 (or higher)

- 5 credits in quantitative reasoning: MATH& 141 (or higher)

- 5 credits in a social science or humanities course: PSYC& 100DIV, or other transferable social science or humanities course that meets the CPTC diversity requirement.

- 5 credits in a transferable Social Science, Humanities, or Science course

- 3 credits in COLL 102 *must be taken in first 2 quarters

AAS-T Degree General Education Requirements (23 credits)

All AAS-T degrees must have a minimum of 20 credits of transferable general education. These credits replace the academic courses required for the AAT degree. Required credits include:

5 credits in communication

ENGL& 101	English Composition I	5

5 credits in quantitative reasoning

MATH& 107	Math in Society	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II, Functional Trigonometry	5
MATH& 146	Introduction to Statistics	5
MATH& 151	Calculus I	5

5 credits in a social science that meets the diversity requirement

PSYC& 100DIV	General Psychology	5
SOC& 101DIV	Introduction to Sociology	5

5 credits in social science, humanities, or science

Choose one from the following:

ART& 100	Art Appreciation	5
ASL& 121	American Sign Language I	5
ASL& 122	American Sign Language II	5
BIOL& 160	General Biology w/Lab	5
BIOL& 175	Human Biology w/Lab	5
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5
BIOL& 260	Microbiology	5
CHEM& 110	Chemical Concepts w/Lab	5
CHEM& 121	Intro to Chemistry	5
CHEM& 131	Introduction to Organic/Biochemistry	5
CMST& 220	Public Speaking	5
GEOL& 110	Environmental Geology with Lab	5

HIST& 146	US History I	5
HIST& 147	US History II	5
HIST& 148	US History III	5
HUM& 101	Introduction to Humanities	5
MUSC& 105	Music Appreciation	5
PHYS& 114	General Physics I with Lab	5
POLS& 202	American Government	5
PSYC& 100DIV	General Psychology	5
PSYC& 200	Lifespan Psychology	5
PSYC& 220	Abnormal Psychology	5
SOC& 101DIV	Introduction to Sociology	5

3 credits in College Success:

COLL 102	College Success for All	3

Students pursuing an AAT or AAS-T degree must complete all college degree requirements prior to graduation. This includes courses that meet the requirements for diversity, computer literacy, and the capstone project.

Program Length

The program is approximately seven quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Summer, fall, winter, and spring quarters.

Medical Assistant - Associate of Applied Technology Degree

Medical Assistant Program (MAP) graduates may assume positions as multi-skilled allied health professionals who perform a wide range of duties in physicians' offices, clinics, and other outpatient health care settings.

The MAP curriculum includes anatomy and physiology, medical terminology, medical law and ethics, oral and written communication, administrative procedures, financial record keeping, mathematics, insurance billing and medical coding, basic office diagnostic procedures, principles of pharmacology and medication administration, venipuncture, medical and surgical asepsis, and microbiology.

Students are trained in administrative and clinical procedures performed in physicians' offices and/or clinics. Graduates from this program are eligible to take the national certification exam through the American

Association of Medical Assistants (AAMA), which is one of the nation wide authorized exams for certification through Washington State. Training will include, but is not limited to, professional telephone techniques, scheduling appointments, interviewing and educating patients, scheduling hospital admissions for patients, maintaining financial records and files, completing insurance forms, preparing and maintaining employees' payroll records, assisting patients in preparing for examinations and procedures, cleaning and sterilizing instruments and equipment, collecting specimens, performing electrocardiograms, and assisting physicians with examinations, treatments, procedures, and minor office surgeries.

Program Learning Outcomes

Upon successful completion of the Medical Assistant degree, students will be able to:

- Apply law and ethics relating to the healthcare field focusing on components specific to medical assistants.

- Use medical terminology in order to communicate effectively with culturally diverse patients and team members.

- Use specialized software for the healthcare environment.

- Perform a variety of clinical and administrative tasks safely and effectively according to program accreditation.

- Use the knowledge of the credentialing process to apply for an interim medical assistant certification.

- Create medical records that comply with state and federal laws.

Included in this program are general education courses in math, public speaking, and sociology. These courses broaden students' foundation knowledge base and increase their success in the program. Students must earn a solid "C" (no C-) grade or better in these general education courses to graduate from the MAP.

Additional courses included in the MAP consist of the following: CAH 102 Medical Terminology, COLL 102 College Success for All and CAH 105 Computer Applications. Students must earn a "C" (no C-) grade or better in CAH 102, COLL 102, and CAH 105 courses to satisfy graduation requirements. No MAP course may be taken more than twice. All courses with the MAP prefix

must be passed with a "B" (no B-) or better and pass all program accredited psychomotor and affective competencies with at least 80%.

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Students will receive HIV/AIDS and HIPAA certifications through the program but must obtain American Heart Association – CPR for Health Care Provider/Professional Card external to the program and prior to externship.

Externship hours will vary and will be completed during the day hours for both day and evening students. Although Clover Park Technical College cannot guarantee a specific site placement, students' preferences and needs are taken into consideration. Additionally, with the assistance of the instructors and/or clinical placement coordinator, students will have the opportunity to choose and/or secure their own externship site if an affiliation agreement with that entity is approved and in place before the first day of externship. Upon completion of the MAP, students will graduate with an Associate of Applied Technology.

Program Accreditation

The Medical Assistant Program at Clover Park Technical College is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB):

Commission on Accreditation of Allied Health Education Programs
~~25400 US Highway 19 N, Suite 158~~
~~Clearwater, FL 33756~~
9355 113th Street North, #7709
Seminole, FL 33775
727-210-2350

Physical Activity Requirements

This occupation requires medium physical activity and lifting/handling objects weighing 10-25 lbs. (occasionally up to 50 lbs.) and handling body fluids. Medical Assistants are often standing for long periods of time. For safety and protection of patients, student medical assistants must be able to perform basic cardiac life support, including CPR, and function in stressful and/or emergency situations. Students must be able to safely assist a patient in moving between an exam room table, chair, wheelchair, and/or walker.

Employability Requirements

Graduates must meet the state application requirements for

medical assistants, which include, but are not limited to: passing one of the authorized national certification exams, seven hours of AIDS education and training as required under WAC 246-824, current cardiopulmonary resuscitation (CPR), and no disqualifying crimes on a criminal background check.

Program Length

This program is approximately five quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Day program: Summer quarter.

Evening program: Winter quarter.

Once a student begins in either the day or evening program section, they will be unable to change sections without authorization from an instructor. Changing program sections depends on available space.

Medical Histology Technician - Associate of Applied Technology Degree / Associate in Applied Science – T Degree

Trains students to prepare thin sections of human tissue for microscopic examination.

Prepares students for entry-level employment as medical histology technicians in clinical, veterinary, and research laboratories. This program also serves as a pathway for career advancement in specialized areas in the medical histotechnology profession.

The Medical Histology Technician program stresses practical application and the development of job skills, as well as medical histotechnology theory.

Designed to enhance students' abilities to reason, understand, and apply correct principles of medical histotechnology by teaching analytical and critical thinking skills, the Medical Histology Technician program prepares students to sit for the National Board Certification Exam.

New entrants into the field, as well as incumbent workers who have not had the advantage of receiving a strong theoretical foundation, will find this course of study beneficial. Students will be involved in classroom/ lab work for the first three quarters of the program, with the remaining time spent in a clinical rotation.

Students are required to carry personal health/medical

insurance throughout their clinical rotations. Quarterly insurance for students may be purchased; further information is available through the Advising and Counseling Office. No student will be allowed at a clinical site without proof of insurance.

May be required to travel to the greater Seattle for summer clinical experience, expenses for commuting and parking is the responsibility of the student.

Program Learning Outcomes

Upon successful completion of the Medical Histology degree, students will be able to:

- Plan to sit for the national certification exam.

- Explain the national requirements of continuing education to maintain certification.

- Perform a variety of histology skills safely and efficiently

- Demonstrate effective communication, both verbally and in writing, with coworkers, supervisors, clients, and physicians.

- Demonstrate the medical professional code of conduct.

- Produce industry quality and performance standards in all areas of histology.

- Interpret documentation of a scientific nature related to histology.

- Perform to increase professional standards and quality.

Completion Requirements

Prerequisite(s)

Before starting the program, students must have a high school diploma or high school equivalency diploma and complete all the general education courses.

Histology Technicians rely heavily on color appearance. Each student will need to successfully take a color blindness self-test. Please contact your advisor or instructor for details.

In order to participate in the clinical aspect of the program, students must receive a "No Record On File" Report related to crimes against persons on a criminal background check. They must obtain CPR certification and have current immunizations or laboratory verification of

immune status, which includes, but is not limited to, Hepatitis B series, Tetanus/Diphtheria, Tuberculosis Test, Measles/Mumps/Rubella, and Varicella, as required by contracts with clinical facilities and CDC recommendations. Proof of immunizations is required by the last day of class in fall quarter, without exception. Students are required to carry personal health/medical insurance throughout their clinical rotations. Quarterly insurance for students may be purchased; further information is available through the Advising and Counseling Office. No student will be allowed at a clinical site without proof of insurance.

Our program advisory committee and area clinical sites have identified the following attributes of a successful Histology student:

Maintain a professional appearance and attitude at all times

Be willing to accept the challenges of the program and dedicate the year to studying, many hours of studying above and beyond program hours is necessary

Recognize and accept the frustration level in learning new skills

Accept constructive criticism and feedback without anger or hostility

Maintain the physical and emotional challenges of the program

Ability to complete the required volunteer hours above and beyond the program hours.

The following prerequisites must be completed with a grade of "B" (3.0) higher prior to entry in the program: CMST& 220, PSYC& 100 OR SOC& 101, MAT 108 or MATH& 146 (see your adviser), CAH 102, CAH 105, COLL 102, ENGL& 101, CHEM& 110, and BIOL& 175

BIOL&/CHEM& must be completed within the last five years.

Prerequisites		
BIOL& 175	Human Biology w/Lab	5
CAH 102	Medical Terminology I	5
CAH 105CL	Computer Applications	5
CHEM& 110	Chemical Concepts w/Lab	5
CMST& 220	Public Speaking	5
COLL 102	College Success for All	3
ENGL& 101	English Composition I	5

MAT 108	Math for Health Occupations	5
	Or	
MATH& 146	Introduction to Statistics	5
PSYC& 100DIV	General Psychology	5
	Or	
SOC& 101DIV	Introduction to Sociology	5
	Subtotal: 43	

Technical Course Requirements

HISTO 105	Orientation to the Histology Laboratory	2
HISTO 110	Histotechnology I	10
HISTO 115	Histotechnology Lab I	5
HISTO 120	Histotechnology II	10
HISTO 125	Histotechnology Lab II	5
HISTO 130	Math Applications for Histology	3
HISTO 135	Histotechnology III	10
HISTO 140	Histotechnology Lab III	5
HISTO 145	Immunohistochemistry	5
HISTO 150CAP	Histology Internship	10
HISTO 160	Histology Seminar	5
	Subtotal: 70	

AAT Requirements

	Prerequisites	43
	Technical Course Requirements	70
	Subtotal: 113	

Note: MAT 108 Math for Health Occupations required for the AAT degree

AAS-T Requirements

	Prerequisites	43
	Technical Course Requirements	70
	Subtotal: 113	

Note: MATH 146 Introduction to Statistics required for the AAS-T degree.

General Degree Requirements

Students pursuing an AAT or AAS-T degree must complete all college degree requirements prior to graduation. This includes courses that meet the requirements for diversity, computer literacy, and the capstone project.

Granting of degree is not contingent upon the students passing any type of external certification or licensure examination.

Program Accreditation

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences:

5600 N. River Road
Suite 720
Rosemont, IL 60018
773-714-8880

Employability Requirements

Graduates are required to pass a national certification exam prior to employment. Students must pass a background check prior to being allowed to perform clinical rotations. Students are required to maintain immunizations and acquire an American Health Association CPR Health Care Provider card.

Be aware that many histology laboratories function 24 hours a day, 7 days a week. This is not a 9 am to 5 pm career.

Physical Activity Requirement

Move freely and safely about the laboratory. Reach laboratory bench tops and shelves. Be able to sit and/or stand for long periods of time, up to 6-7 hours. Use electronic keyboard, computer and calculator with ease. Use clinical grade binocular microscope to evaluate tissue section and ultra-structure of the cell. Characterize color and odor. Histology requires vast memorization skills. Lift and move up to 50 lbs. Have full use of hands and fingers with the ability to manipulate small tools. Be able to perform repetitive movements especially hands, fingers, elbows and shoulders. Those who experience prior injury in shoulder and/or back issues should consult their physician. Twisting, leaning and lifting are required. Read and comprehend technical and professional materials, texts, numbers and graphs displayed in print or monitor. Comprehend three dimensional space, specifically peripheral vision. Have adequate breathing ability.

Program Length

This program is approximately four quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Fall quarter.

Nondestructive Testing - Associate of Applied Technology Degree / Associate in Applied Science – T Degree

The Nondestructive Testing (NDT) program at Clover Park Technical College provides training in a variety of analysis techniques used in industry to evaluate the properties of a material or structure without causing damage. Because NDT does not impair the usefulness of the object being inspected, it is a valuable process used in fields such as construction, manufacturing, civil engineering, and transportation. Nondestructive testing techniques are used to examine structures or vehicles such as aircraft, trains, nuclear reactors, bridges, dams, and pipelines.

This program prepares graduates to become active and successful professionals in nondestructive testing in a wide range of industries. Students will explore and receive hands-on technical training in blueprint reading, codes and specifications, composite fabrication, assembly and repair, materials, and the manufacturing process. Training will also include the major methods of NDT, such as visual and optical, magnetic particle, liquid penetrant, radiographic, ultrasonic and eddy current testing, along with an overview of other methods. Students will be introduced to advanced technologies, such as ultrasonics (phased array), and radiography (digital detector array DDA and computerized radiography CR). Successful graduates are prepared with technical skills for entry-level positions, such as quality control technicians, NDT technicians, engineering technicians, and NDT equipment representatives.

Program Learning Outcomes

Upon successful completion of the Nondestructive Testing (NDT) degree, students will be able to:

- Correlate the discontinuities specific to each manufacturing process with the non-destructive testing method or methods used to detect, interpret, and evaluate them.

- Perform the basic setup and calibration of non-destructive testing equipment according to referenced codes, standards, and specifications.

- Create a non-destructive testing technique in which known defects within any assigned part or assembly are inspected, interpreted, and evaluated in accordance with referenced codes, standards, and specifications.

- Analyze inherent and service induced discontinuities and defects for differentiation and disposition with

various precision measurement tools.

- Create technical reports documenting the results of their inspection findings.

Completion Requirements

Prerequisite(s)

Successful completion of ENG 091 or equivalent. Successful completion of MAT 099 by the end of the first quarter of the program or instructor's permission.

Program Course List

MS 123	Fundamentals of Welding for the Non-Welding Major	5
MS 126	Fundamentals of Composites for the Non-Composites Technician	4
MS 131	Blueprint Reading Fundamentals	3
NDT 108	Introduction to NDT	5
NDT 113	Material and Processes for NDT I	5
NDT 120	Visual and Optical Testing	5
NDT 121	Materials and Processes for NDT II	5
NDT 125	Magnetic Particle Testing	5
NDT 130	Liquid Penetrant Testing	5
NDT 140	Eddy Current Testing I	5
NDT 150	Ultrasonic Testing I	5
NDT 160	Radiographic Testing I	5
NDT 170	Eddy Current Testing II	5
NDT 180	Ultrasonic Testing II	5
NDT 185	Physics for NDT Professionals	5
NDT 190	Radiographic Testing II	5
NDT 210	Eddy Current Testing III	5
NDT 220	Ultrasonic Testing III	5
NDT 230	Radiographic Testing III	5
NDT 240CAP	Capstone Project Or	3
NDT 250	NDT Internship	1-11
	Subtotal: 95	

Note: Nondestructive Testing Required Electives listed below Elective requirements have been removed.

AAT Requirements

	Technical Course Requirements	95
	AAT General Education Requirements	18
	Computer Literacy	3
	Subtotal: 116	

AAT General Education Requirements: See list above

Computer Literacy Requirement: Complete an approved computer literacy course or successfully pass the computer literacy exam

AAS-T Requirements

Technical Course Requirements	95
AAS-T General Education Requirements	23
Computer Literacy	3
Subtotal: 121	

AAS-T Degree General Education Requirements: See list above

Computer Literacy Requirement: Complete an approved computer literacy course or successfully pass the computer literacy exam

General Degree Requirements

AAT Degree General Education Requirements (18 credits)

ENGL& 101	English Composition I	5
	Or	
CMST& 220	Public Speaking	5
	Any 100-Level Math Class	5
PSYC& 100DIV	General Psychology	5
COLL 102	College Success for All	3

AAS-T Degree General Education Requirements (23 credits)

All AAS-T degrees must have a minimum of 20 credits of transferable general education. These credits replace the academic courses required for the AAT degree. Required credits include:

5 credits in communication:

ENGL& 101	English Composition I	5

5 credits in quantitative reasoning:

MATH& 107	Math in Society	5
MATH& 141	Precalculus I	5
MATH& 142	Precalculus II, Functional Trigonometry	5
MATH& 146	Introduction to Statistics	5
MATH& 151	Calculus I	5

5 credits in a social science that meets the diversity requirement:

PSYC&	General Psychology	5

100DIV		
SOC& 101DIV	Introduction to Sociology	5

5 credits in social science, humanities, or science

choose one from the following:

ART& 100	Art Appreciation	5
ASL& 121	American Sign Language I	5
ASL& 122	American Sign Language II	5
BIOL& 160	General Biology w/Lab	5
BIOL& 175	Human Biology w/Lab	5
BIOL& 241	Human A & P I	5
BIOL& 242	Human A & P II	5
BIOL& 260	Microbiology	5
CHEM& 110	Chemical Concepts w/Lab	5
CHEM& 121	Intro to Chemistry	5
CHEM& 131	Introduction to Organic/Biochemistry	5
CMST& 220	Public Speaking	5
GEOL& 110	Environmental Geology with Lab	5
HIST& 146	US History I	5
HIST& 147	US History II	5
HIST& 148	US History III	5
HUM& 101	Introduction to Humanities	5
MUSC& 105	Music Appreciation	5
PHYS& 114	General Physics I with Lab	5
POLS& 202	American Government	5
PSYC& 100DIV	General Psychology	5
PSYC& 200	Lifespan Psychology	5
PSYC& 220	Abnormal Psychology	5
SOC& 101DIV	Introduction to Sociology	5

3 credits in College Success:

COLL 102	College Success for All	3

Students pursuing an AAT or AAS-T degree must complete all college degree requirements prior to graduation. This includes courses that meet the requirements for diversity, computer literacy, and the capstone project.

Program Length

This program is approximately eight quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Fall and spring quarters.

Pharmacy Technician Advanced - ASHP/ACPE Accredited Associate of Applied Technology Degree

Pharmacy technicians process prescriptions, prepare intravenous drugs, order and stock medications, prepare billing, and operate and troubleshoot automated drug-dispensing systems.

Successful graduates of this program are educated and trained in pharmacy technician duties and responsibilities under the dual guidelines of the American Society of Health-System Pharmacists and the Accreditation Council for Pharmacy Education.

The structured classroom curriculum includes customer service, communication, prescription processing, aseptic technique, human relations, and pharmacy calculations. The clinical component of the program gives students the chance to practice the skills received in the classroom and laboratory environment. This prepares students to assume the role of a pharmacy technician in community, hospital, long term care, compounding and other various types of pharmacies.

Included in this program are academic courses in communication, quantitative reasoning, and social sciences that provide knowledge and abilities that enhance personal development and serve as a foundation for technical skills.

This program is a combination of online, classroom, laboratory, and clinical experience. During the clinical experience quarter, students are required to attend 32 hours per week of clinical experience, Tuesday through Friday. Actual times may vary by pharmacy; most will be day shift hours. Students are required to carry personal health/medical insurance throughout their clinical rotations. No student will be allowed at clinical sites without proof of insurance.

Program Learning Outcomes

Upon successful completion of the Pharmacy Technician degree, students will be able to:

- Perform mathematical calculations essential to the duties of pharmacy technicians in a variety of settings.

- Select appropriate medication from inventory.

- Apply state and federal laws pertaining to processing, handling, and dispensing of medications including controlled substances.

- Apply patient and medication safety practices in aspects of the pharmacy technician's roles.

- Fill prescriptions/medication orders to ensure completeness, accuracy, authenticity, and safety.

- Summarize the national test standards and information in order to pass the Pharmacy Technician Certification Exam.

Employability Requirements

Graduation from a Washington State Pharmacy Quality Assurance Commission (PQAC) approved technical training program. The PQAC requires all applicants to provide proof of passing a national pharmacy technician certification examination. Four hours of AIDS education and training as required under WAC 246-901-120. A comprehensive background check will be conducted to screen for prior convictions prior to state licensing. Persons with some types of criminal convictions may not be eligible for licensure. Drug use, criminal background checks, and immunization status may prevent future employment as a pharmacy technician.

Physical Requirements

Students of the Pharmacy Technician program are required to be able to discriminate increment readings on syringes and discriminate different colored and shaped objects. Students need to be able to recognize and respond to voices under protective garb and on the phone. Excellent fine motor skills are required. Must be able to type 35 WPM. Standing for long periods of time (8-12 hours) and manipulating needles and syringes while holding their arms out in front of them is required. Ability to stand and work for long periods of time in safety equipment and garb is required. Students are expected to be able to lift 25 lbs. and push and pull carts up to 50 lbs.

Program Length

This program is approximately five to six quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Summer and winter starts.

Completion Requirements

Prerequisite(s)

Before starting the program, a student must have a high school diploma or high school equivalency diploma.

To enter the program, students must meet the prerequisites for college-level reading, writing, and math. They must have completed CAH 105 Computer Applications or equivalent, and CAH 102 Medical Terminology or equivalent course, and be college level math ready. Students must maintain a "B" or above in all technical and general education courses to enter and continue in the program.

Students will have a comprehensive background check performed by the PQAC as well as Castle Branch prior to their clinical rotation. A non-refundable fee is charged to each student for the background check. Students must be at least 18 years of age by the time clinical experience starts. Students must have current immunizations or laboratory verification of immune status. This could include, but is not limited to, Measles/Mumps/Rubella, Hepatitis B series and titer, Tetanus/ Diphtheria, Tuberculosis Test, Current Flu and Varicella, as required by contracts with clinical facilities and CDC recommendations.

Students must have current American Heart Association CPR for the Healthcare Professional certification. Bring immunizations records the first day of class unless arrangements have been made with instructor.

Program Course List

CAH 102	Medical Terminology I	5
CAH 105CL	Computer Applications	5
COLL 102	College Success for All	3
CMST& 220	Public Speaking	5
ENGL& 101	English Composition I	5
MAT 108	Math for Health Occupations	5
	Or	
	Any 100-Level Math Class	5
PSYC& 100DIV	General Psychology	5
SOC& 101DIV	Introduction to Sociology	5
PT 120	Pharmacology Part I	5
PT 121	Introduction to Pharmacy & Pharmacy Law	5
PT 122	Generic Drug Names Part I	2
PT 126	Community Practice	4
PT 127	Pharmacy Lab #1	2
PT 133	Pharmaceutical Calculations	3
PT 135	Hospital Practice with Sterile Processing	6
PT 136	Pharmacology Part II	5
PT 138	Generic Drug Names Part II	2
PT 155	Clinical Capstone Research	2
PT 157	Pharmacy Lab #2	3

PT 163CAP	Community Pharmacy Clinical Capstone	7
PT 165CAP	Institutional Clinical Capstone	7

Subtotal: 91

NOTE: PSYC& 100DIV or higher, but not PSY 112
BIOL& 175 has been deleted from the program course list.
PT 136 has been added to the program course list.
The math course requirement has been updated.

Pharmacy Technician Advanced - ASHP/ACPE Accredited Certificate

Pharmacy Technicians process prescriptions, prepare intravenous drugs, order and stock medications, prepare billing, and operate and troubleshoot automated drug-dispensing systems.

Successful graduates of this program are educated and trained in pharmacy technician duties and responsibilities under the dual guidelines of the American Society of Health-System Pharmacists and the Accreditation Council for Pharmacy Education.

The structured classroom curriculum includes customer service, communication, prescription processing, aseptic technique, human relations, and pharmacy calculations. The clinical component of the program gives students the chance to practice the skills received in the classroom and laboratory environment. This prepares students to assume the role of a pharmacy technician in Community, hospital, long term care, compounding and other various types of pharmacies.

Included in this program are academic courses in communication, quantitative reasoning, and social sciences that provide knowledge and abilities that enhance personal development and serve as a foundation for technical skills.

This program is a combination of classroom, laboratory, and clinical experience. During the clinical experience quarter, students are required to attend 32 hours per week of clinical experience, Tuesday through Friday. Actual times may vary by pharmacy; most will be day shift hours. Students are required to carry personal health/medical insurance throughout their clinical rotations. No student will be allowed at clinical sites without proof of insurance.

Program Learning Outcomes

Upon successful completion of the Pharmacy Technician degree, students will be able to:

- Perform mathematical calculations essential to the

duties of pharmacy technicians in a variety of settings.

- Select appropriate medication from inventory.

- Apply state and federal laws pertaining to processing, handling, and dispensing of medications including controlled substances.

- Apply patient and medication safety practices in aspects of the pharmacy technician's roles.

- Fill prescriptions/medication orders to ensure completeness, accuracy, authenticity, and safety.

- Summarize the national test standards and information in order to pass the Pharmacy Technician Certification Exam.

Employability Requirements

Graduation from a Washington State Pharmacy Quality Assurance Commission (PQAC)-approved technical training program. The PQAC requires all applicants to provide proof of passing a national pharmacy technician certification examination. Four hours of AIDS education and training as required under WAC 246-901-120. A comprehensive background check will be conducted to screen for prior convictions prior to state licensing. Persons with some types of criminal convictions may not be eligible for licensure. Drug use, criminal background checks, and immunization status may prevent future employment as a pharmacy technician.

Physical Requirements

Students of the pharmacy technician program are required to be able to discriminate increment readings on syringes and discriminate different colored and shaped objects. Students need to be able to recognize and respond to voices under protective garb and on the phone. Excellent fine motor skills are required. Must be able to type 35 WPM. Standing for long periods of time (8-12 hours) and manipulating needles and syringes while holding their arms out in front of them is required. Ability to stand and work for long periods of time in safety equipment and garb is required. Students are expected to be able to lift 25 lbs. and push and pull carts up to 50 lbs.

Program Length

This program is approximately five quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Summer and winter starts.

Completion Requirements

Prerequisite(s)

Before starting the program, a student must have a high school diploma or high school equivalency diploma. To enter the program, a student must meet the prerequisite for college-level reading, writing, and math. They must have completed CAH 105 Computer Applications or equivalent, and CAH 102 Medical Terminology or equivalent course and be college level math ready. Students must maintain a "B" or above in all technical and general education courses to enter and continue in the program.

Students will have a comprehensive background check performed prior to their clinical rotation. A non-refundable fee is charged to each student for the background check. Students must be at least 18 years of age by the time clinical experience starts. Students must have current immunizations or laboratory verification of immune status. This could include, but is not limited to, Measles/Mumps/Rubella, Hepatitis B series and titer, Tetanus/Diphtheria, Current Flu, Tuberculosis Test, and Varicella, as required by contracts with clinical facilities and CDC recommendations.

Students must have current American Heart Association CPR for the Healthcare Professional certification. Proof of immunizations records should be submitted the first day of class, unless arrangements have been made with the instructor.

Program Course List

CAH 105CL	Computer Applications	5
ENGL& 101	English Composition I	5
	Or	
CMST& 220	Public Speaking	5
MAT 108	Math for Health Occupations	5
	Or	
	Any 100-Level Math Class	5
PSYC& 100DIV	General Psychology	5
	Or	
SOC& 101DIV	Introduction to Sociology	5
CAH 102	Medical Terminology I	5

COLL 102	College Success for All	3
PT 121	Introduction to Pharmacy & Pharmacy Law	5
PT 120	Pharmacology Part I	5
PT 122	Generic Drug Names Part I	2
PT 126	Community Practice	4
PT 127	Pharmacy Lab #1	2
PT 133	Pharmaceutical Calculations	3
PT 135	Hospital Practice with Sterile Processing	6
PT 136	Pharmacology Part II	5
PT 138	Generic Drug Names Part II	2
PT 155	Clinical Capstone Research	2
PT 157	Pharmacy Lab #2	3
PT 163CAP	Community Pharmacy Clinical Capstone	7
PT 165CAP	Institutional Clinical Capstone	7

Subtotal: 81

NOTE:

~~*ENGL& 101 or higher*~~

~~*PSYC& 100DIV or higher, but not PSY 112*~~

PT 126, PT 136, and PT 138 have been added to the program course list.

The math course requirement has been updated.

The total credits hours have been changed from 75 to 81.

Surgical Technology - Associate of Applied Technology Degree

Prepares students to work as part of a team of surgeons and registered nurses in the operating room. Successful graduates of this program are educated in surgical technology under the guidelines of the Association of Surgical Technologists.

The structured curriculum includes basic sciences, patient care, surgical procedures, and human anatomy combined with clinical rotations in area health care facilities. Classroom instruction, labs, and clinical internships prepare students to assume the role of a perioperative team member in a variety of health care delivery settings. Included in this program are academic courses in communication, quantitative reasoning, and social sciences that provide knowledge and abilities that enhance personal development and serve as a foundation for technical skills.

Students are required to carry personal health/medical insurance throughout their clinical rotations.

No student will be allowed at a clinical site without proof of insurance.

Program Learning Outcomes

Upon successful completion of the Surgical Technology degree, students will be able to:

- Correlate the knowledge of anatomy, physiology, pathophysiology, and microbiology to their role as a surgical technologist.

- Use principles and practices related to personal patient safety devices and procedures.

- Apply the ethical, legal, moral, and medical values related to the patient and the operating room team during the perioperative experience.

- Correlate the elements, action, and use of medications and anesthetic agents used during the perioperative experience.

- Demonstrate safe practice techniques in regards to perioperative routines, patient transportation, positioning, and emergency procedures.

- Demonstrate principles of surgical asepsis as part of the perioperative experience.

- Analyze the biopsychosocial needs of the surgical patient in order to address those needs.

- Perform as a competent entry-level surgical technologist in the cognitive, psychomotor, and effective learning domains according to ARC/STSA standards.

- Model the professional attributes of the surgical technologist.

Program Accreditation

The Commission on Accreditation of Allied Health Education Programs (www.caahep.org) has granted accreditation to the Surgical Technology program upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

Commission on Accreditation of Allied Health Education Programs
~~25400 U.S. Highway 19 North, Suite 158~~
~~Clearwater, FL 33763~~

9355 113th Street North, #7709
Seminole, FL 33775
Phone: 727-210-2350 Fax: 727-210-2354
www.caahep.org

Physical Activity Requirements

Students cannot require use of assistive devices. This occupation requires the ability to stand, sit, and walk for extended periods of time and the ability to lift and hold 50 lbs. Students must be able to meet these physical requirements in order to complete lab requirements, be assigned to a clinical rotation and get a job in this field.

Employability Requirements

Most employers prefer national certification. Seven hours of AIDS education and training as required under WAC 246-939. A comprehensive background check will be conducted to screen for prior convictions prior to state registration.

Persons with some types of criminal convictions may not be eligible for employment.

Program Length

This program is a combination of on-line, classroom, laboratory and clinical experiences. It is approximately six quarters long, depending on the time students need to satisfactorily complete all graduation requirements.

Admission Dates

Fall and spring quarters

Change in Courses

The prerequisites of the following classes have been changed.

CPW 101CL Programming Fundamentals

This course is an introduction to programming concepts that enforces good programming style and logical thinking. Designed for students with little or no programming language experience, it begins with basic general programming concepts and key concepts of structure. The course then progresses to the intricacies of decision-making, looping, array manipulation, and methods.

Credits

5

Prerequisite

Successful completion of MAT 094 and ENG 094

CPW 118 Web Design Principles

Explore how the web works and methods and limitations of delivering content on the web. Examine usability issues, such as interface design and structure and how to accommodate a wide variety of viewports, from smartphones to cinema screen computer monitors. Students will build a four-page portfolio-style website and post it to the Internet.

Credits

5

Prerequisite

Successful completion of MAT 094 and ENG 094

CPW 150 Principles of Relational Databases

Delve into the fundamental concepts, terminologies, methodologies, and system organizations of database management systems. Develop the theoretical foundation of understanding necessary to design, implement, optimize, query, and maintain a database system. Propose, design, and develop a database, using a relational database management system to reinforce the theoretical concepts.

Credits

5

Prerequisite

Successful completion of MAT 094 and ENG 094

MEC 115 DC Circuits

Covers DC electrical terms, equations and theory. Presents techniques used for solving problems involving resistance, voltage, and current in circuits. Presents fundamental laws and relationships applied to the analysis of circuits, including capacitors and/or inductors. Basic circuit fabrication techniques and standard instrumentation used in test and measurement of DC circuits will also be covered.

Credits

5

Prerequisite

Successful completion of ~~FSME 113~~FSME 114. Prerequisite or co-requisite: MAT 099 or higher or appropriate placement.

Corequisite

MEC 140.

MEC 125 Hydraulics and Pneumatics

Provides students with an understanding of design, installation, maintenance, and repair techniques for the hydraulic and pneumatic systems used in automated systems.

Credits

5

Prerequisite

Successful completion of ~~FSME 113~~ FSME 114.

Corequisite

MEC 150.

MEC 150 Mechanical Systems

Develops an understanding of mechanical components used in typical mechatronic systems, such as positioning mechanisms, cranks and sliders, and belts and pulleys. Includes fabrication, test, and troubleshooting of prototype devices.

Credits

5

Prerequisite

Successful completion of ~~FSME 113~~FSME 114.

Corequisite

MEC 125.

The credits of the following class have been changed.

PT 136 Pharmacology Part II

Continues the exploration of drug action mechanisms, the routes of administration, and the effects on body systems. Emphasis is placed on the uses, effects and side effects of the major drug classes.

Credits

~~6~~ 5

Prerequisite

Completion of PT 121 Introduction to Pharmacy and Pharmacy Law, PT 120 Pharmacology Part 1, and PT 126 Community Practice courses with a B or above in all courses.

Deleted Courses

The following courses have been deleted from the 2020-2021 catalog:

ENGL& 244 American Literature I

ENGL& 245 American Literature II

ENGL& 246 American Literature III

Deleted Programs

The following programs have been deleted from the 2020-2021 catalog:

Master Esthetician Certificate

Change in Policies and Procedures

The following sections have been changed:

Academic Standards / Honors

The CPTC ~~purple~~ green honor cord is worn during the annual graduation ceremony to recognize students who finish their coursework with the honors designation. The honors designation on a student's final transcript is based on a cumulative GPA 3.75 or higher in all college-level courses for those students earning a degree or a certificate of 45 credits or more. To determine honor cord eligibility:

- For students completing their program of study in the current spring or summer quarters, the previous winter quarter college-level GPA is used.

- For students who completed their program the previous fall or winter quarters, the final college-level GPA is used.

Students who meet the requirements to wear the ~~purple~~ green honor cord will be notified by letter and through their student email account by May 20 of each year. The graduation honors are different than the quarterly president's and vice president's lists.

Index