

2016/17

Course Catalog





Perry Technical Institute

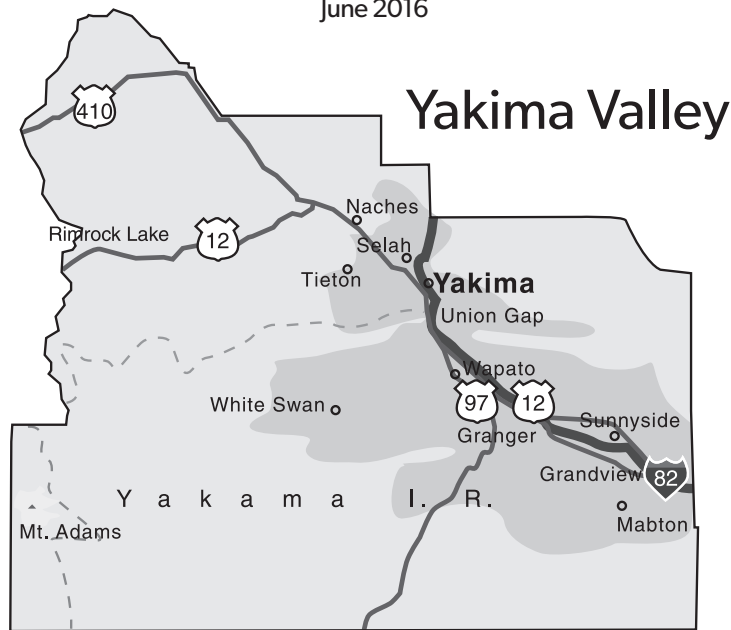
2011 West Washington Avenue
Yakima, WA 98903-1296
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perrytech.edu

ACCSC

Accrediting Commission of Career Schools and Colleges

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(ACCSC)

Date of Publication
June 2016



Perry Technical Institute is authorized by the Washington Student Achievement Council and meets the requirements and minimum educational standards established for degree-granting institutions under the Degree-Granting Institutions Act. This authorization is subject to periodic review and authorizes Perry Technical Institute to offer specific degree programs. The Council may be contacted for a list of currently authorized programs. Authorization by the Council does not carry with it an endorsement by the Council of the institution or its programs. Any person desiring information about the requirements of the act or the applicability of those requirements to the institution may contact the Council at P.O. Box 43430, Olympia, WA 98504-3430.

This school is licensed under Chapter 28C, 10 RCW. Inquiries or complaints regarding this private vocational school may be made to the: Workforce Training and Education Coordinating Board • 128 Tenth Ave. SW • Box 43105 • Olympia, WA 98504 • wtb.wa.gov • 360.709.4600 • wtecb@wtb.wa.gov

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website at: <http://www.perrytech.edu/programs/disclosures/>.

Perry Technical Institute does not discriminate on the basis of race, color, religion, national origin, age, ancestry, sex, veteran or military status, sexual orientation, or the presence of any sensory, mental, or physical disability or the use of a trained guide dog or service animal by a person with a disability in its programs and activities. The following person has been designated to handle inquiries regarding the nondiscrimination policies:

Title IX Coordinator/Institutional Effectiveness & Accreditation Manager

Perry Technical Institute | 2011 W. Washington Ave. | Yakima, WA 98903 • 509.453.0374 or 888.528.8586 | titleix@perrytech.edu

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message from the president

I want to extend a warm and personal welcome to Perry Technical Institute. As you start school, I encourage you to see it as a journey. The destination is a career, but the journey is full of its own rewards.

For those who are open to them, Perry will provide many opportunities for growth. While the curriculum, classes, and labs teach technical know-how, Perry's policies challenge you to develop strong work ethics.

Starting when you walk through our doors, we're here to serve you – from friendly greetings to one-on-one help from Financial Aid, from helpful guidance to interview coaching from Career Services. Your instructors will share much more than curriculum – they'll impart the wisdom that can only be gained through experience in industry. At Perry, our goal is to offer you all the tools you need to succeed, both as a student and as an employee.

A Perry education is more than an education, it's a formula for successful living. I hope you'll accept what we offer and apply what you gain throughout your life.



Christine Coté

A handwritten signature in cursive that reads "Christine S. Coté".

Catalog certified as true and correct for content and policy.

Christine Coté

Perry Technical Institute

June 2016

mission statement

Perry Technical Institute will provide industry with well-trained people who are motivated to work as team members to meet the needs of industry in our rapidly evolving technological world.

vision statement

Perry Technical Institute will provide the resources and guidance required to allow students to acquire the knowledge, attitudes and skills to achieve employment and success in their chosen career field.

purpose of the harriet i. perry trust

"The purpose of this trust is the creation, establishment, erection, equipment, maintenance, and endowment of an educational institution to be located on or near the vicinity of Yakima, Washington, to be known as THE J.M. PERRY INSTITUTE OF TRADE, INDUSTRIES AND AGRICULTURE, to provide courses of instruction and training of a practical nature and confined to the technical area of such trades, industries, and branches of agriculture as shall qualify and prepare the students to enter a gainful occupation and fill working positions in respective fields of trade, industry, and agriculture in which courses of instruction and training shall be given by the Institute. All applicants for admission to the Institute shall be not less than sixteen (16) years of age, and shall possess a high school education or the equivalent thereof, and shall be admitted upon such terms or payment, not to be prescribed with a view to profit, as may be determined by the trustees in the case of each applicant for admission, depending on the merits, fitness, and qualifications to benefit by the courses of instruction given by the Institute, PROVIDED, HOWEVER, that said Institute shall be open to all persons upon equal terms who possess the qualifications established for admission thereto." (Trust Deed dated December 20, 1939)

history of perry technical institute

Harriet I. Perry founded Perry Technical Institute in 1939 as a lasting memorial to her husband, the late John M. Perry, a business leader in the Yakima Valley. Although his interests were varied, Mr. Perry's main enterprise was J.M. Perry and Company, a commission house dealing in fruit packing, shipping, cold storage, and ice manufacturing.

In an unfortunate turn of events in 1938, Mr. Perry suddenly became seriously ill while on a business trip to Fairbanks, Alaska. He needed immediate surgery and was flown to Seattle where he died on October 1, 1938, at the age of 77.

One year later, Mrs. Perry announced that she was creating a trust fund to establish J.M. Perry Institute of Trades, Industries and Agriculture. She named three community members to the Board of Trustees: Arthur S. Coffin, Roy A. Matson, and Harcourt M. Taylor. Mrs. Perry outlined plans to create a technical school that would train ambitious people in skilled occupations. Curriculum would be streamlined to eliminate non-essentials and enrollment would be open to beginners as well as those students with previous training or experience.

The trustees researched technical schools throughout the United States, gathering information about curriculum, shop construction, and equipment. The trustees also searched for a suitable site to build the school. They selected a 54-acre parcel of land adjacent to the Yakima Airport. Four small farms and houses were located on the property, which was purchased for \$23,000, or approximately \$426 per acre.

Construction of the school's main building began in 1939 and was completed the following year. The total cost of constructing and equipping the building was approximately \$650,000. The building included shops, classrooms, administrative offices, and an auditorium. The school opened its doors to 211 students on January 2, 1941. The original course offerings were: Aircraft Mechanic; Aircraft Engine Mechanic; Aircraft Radio Mechanic; Automotive Mechanic; Automotive, Body and Fender; Carpentry; Inside Electrical Wiring; Machine Shop Practice; Machine Shop Practice-Tool Making; Painting, Paper Hanging and Decorating; Plumbing and Heating Sheet Metal; Welding-Electric AC and DC; Welding-Oxyacetylene; and General Shop. On July 5, 1950, Mrs. Perry died at the age of 91. She had remained active in school affairs, attending graduation ceremonies and other school events until her death.

In 1969, Perry Technical Institute became the first private technical school in Washington to be accredited by the Accrediting Commission of Career Schools and Colleges of Technology, now known as the Accrediting Commission of Career Schools and Colleges.

Unprecedented growth in the late 1970s and early 1980s created the need to build and equip three additional buildings on campus – Bond Instrumentation Laboratory, Harvey L. Smith Electrical Technology Building, and Burnham Prince Agriculture Mechanics Building. In 1996, the main building was remodeled, adding new classrooms for the Telecommunications Program. A women's restroom was added in the main corridor to accommodate the growing number of women enrolling at the school.

In 1998, crews began constructing a 14,360 square foot building to house the Instrumentation & Industrial Automation Technology Program. The Bond Building, which had housed the program since 1945, continued to be used for two classes. The new Instrumentation Building was dedicated on October 16, 1999, and the first students trained in the building in January 2000.

In July 2004, a fire severely damaged the Bond Building. A new building was constructed to replace the fire-damaged Bond Building. The new building housed a portion of the Instrumentation Program and allowed the Precision Machining & Manufacturing Program to relocate to the new building and move out of its outdated shop. The 17,580 square foot building was dedicated on June 23, 2006.

The hangar building on the west end of campus was completely renovated in the late 2000s. The building houses the Heating, Ventilation, Air Conditioning & Refrigeration Technology Program and the Business Technology & Accounting Program. The state-of-the-art facility was dedicated as the Eugene Shields Technical Training Center on July 18, 2009.

A Student Services area – which includes Career Services, Learning Resources, the Deans' Offices, and a campus store – was added to the south side of the main corridor in 2010. A multipurpose meeting room and staff lounge, complete with a kitchen, were also added at this time.

In 2012, the 16th Avenue building was renovated as the Medical Annex. The annex houses the Medical Office Administration & Coding Program and the Medical Assistant Program.

In the fall of 2014, Perry Tech celebrated its 75th anniversary by breaking ground on a 36,176-square foot, two-story building to house the Instrumentation Program. The building, located northeast of the main campus, is named Plath Hall in honor of longtime Perry supporters Dorothy and the late Fred Plath. A ribbon-cutting ceremony officially opened the building on December 3, 2015. The Instrumentation Program's move freed up space, allowing the Electrical Program to move into larger quarters. The building which had housed the Electrical Program will serve as home to two new programs, Agricultural Equipment Technician and Construction, and provide classroom space for the Welding Technology Program.

Over the history of the school, Perry Technical Institute has tailored its programs to meet the needs of industry. While the course offerings have changed in response to these needs, the mission of the school has remained the same. Perry Technical Institute serves industry by preparing workers with both technical skills and positive work habits. The school serves students of all ages and walks of life by equipping them with the knowledge and skills they need for careers that offer family-supportable wages, job security, benefits, and opportunities for advancement.

facilities

The Perry Technical Institute campus is located at 2011 W. Washington Ave. on approximately 35 acres of land on the southwest edge of Yakima, Washington, across the street from the Yakima Air Terminal.

The school's facilities include the main building, which houses the Administration Office; a 626-seat auditorium; the Information Technology & Communication Systems Program; and Student Services which include, Academic Support, Career Services, the Campus Store, the Copy Center, and the Deli. The Eugene Shields Technical Training Center on the west end of campus houses the Heating, Ventilation, Air Conditioning & Refrigeration Technology Program and the Business Technology & Accounting Program. The Welding Technology Program is located behind the main building. The Precision Machining & Manufacturing Program and the Electrical Technology Program are located east of the main building and the Burnham Prince Automotive Technology Building is on the northwest end of campus. Plath Hall, located east of the main campus, houses the Instrumentation & Industrial Automation Technology Program. The Medical Annex, adjacent to campus on South Sixteenth Avenue, houses the Medical Office Administration & Coding Program and the Medical Assistant Program.

hours of availability

Perry Technical Institute Main Office is open Monday through Thursday from 6:30 a.m. to 5:30 p.m., excluding school closures and holidays. See the Academic Calendar on page 8 for a complete list of scheduled school closures.

The Learning Resource Center is open Monday from 6:30 a.m. to 7:00 p.m. and Tuesday through Thursday from 6:30 a.m. to 6:00 p.m.



the campus



❖ the campus

- | | |
|---|-----------|
| 1) Main Office | |
| Admissions | 1st Floor |
| Enrollment | 1st Floor |
| Financial Services | 1st Floor |
| President's Office | 1st Floor |
| Foundation Office | 1st Floor |
| Title IX | 1st Floor |
| Admissions/PR/Marketing | 2nd Floor |
| Facilities/Maintenance | 2nd Floor |
| 2) Electrical Technology | |
| 3) Precision Machining & Manufacturing | |
| 4) Construction | |
| 5) Agricultural Equipment Technician | |
| 6) Welding Technology | |
| 7) Automotive Technology | |
| 8) Business Technology & Accounting | 2nd Floor |
| Heating, Ventilation, Air Conditioning & Refrigeration Technology | 1st Floor |
| 9) Information Technology & Communication Systems | |
| 10) Instrumentation & Industrial Automation Technology | |
| 11) Medical Office Administration & Coding, Medical Assistant | |
| Business Services/Human Resources | |
| 12) Student Services/Career Services | |
| Deans of Education | |
| Attendance | |
| The Hangar Campus Store | |
| 13) Deli | |

perry technical institute campus

ALL VISITORS MUST CHECK IN AT THE MAIN OFFICE.

1)  Main Office

Admissions	1st Floor
Enrollment	1st Floor
Financial Aid	1st Floor
President's Office	1st Floor
Institutional Effectiveness & Advancement	1st Floor
Foundation	1st Floor
Facilities & Safety	2nd Floor
Boardroom	2nd Floor
Business Services	2nd Floor
Marketing	2nd Floor



Elevator



Designated Smoking Area



Parking



Men's Restroom




Women's Restroom



All-Gender Restroom

2)  Electrical Technology

3)  Instrumentation & Industrial Automation Technology

4)  Precision Machining & Manufacturing

5)  Construction

6)  Agricultural Equipment Technician

7)  Automotive Technology

8)  Heating, Ventilation, Air Conditioning & Refrigeration Technology • 1st Floor

9)  Business Technology & Accounting • 2nd Floor

10)  Information Technology & Communication Systems

11)  Welding Technology

12)  Multipurpose Room

13)  IT Department

14)  Deli

15)  Auditorium

16)  Richard Matson Hall

17)  Student Services

Education Office
Attendance
Career Services
Learning Resource Center & Testing
The Hangar Campus Store
Public Relations

18)  Medical Annex

Medical Assistant
Medical Office Administration & Coding

19)  Human Resources

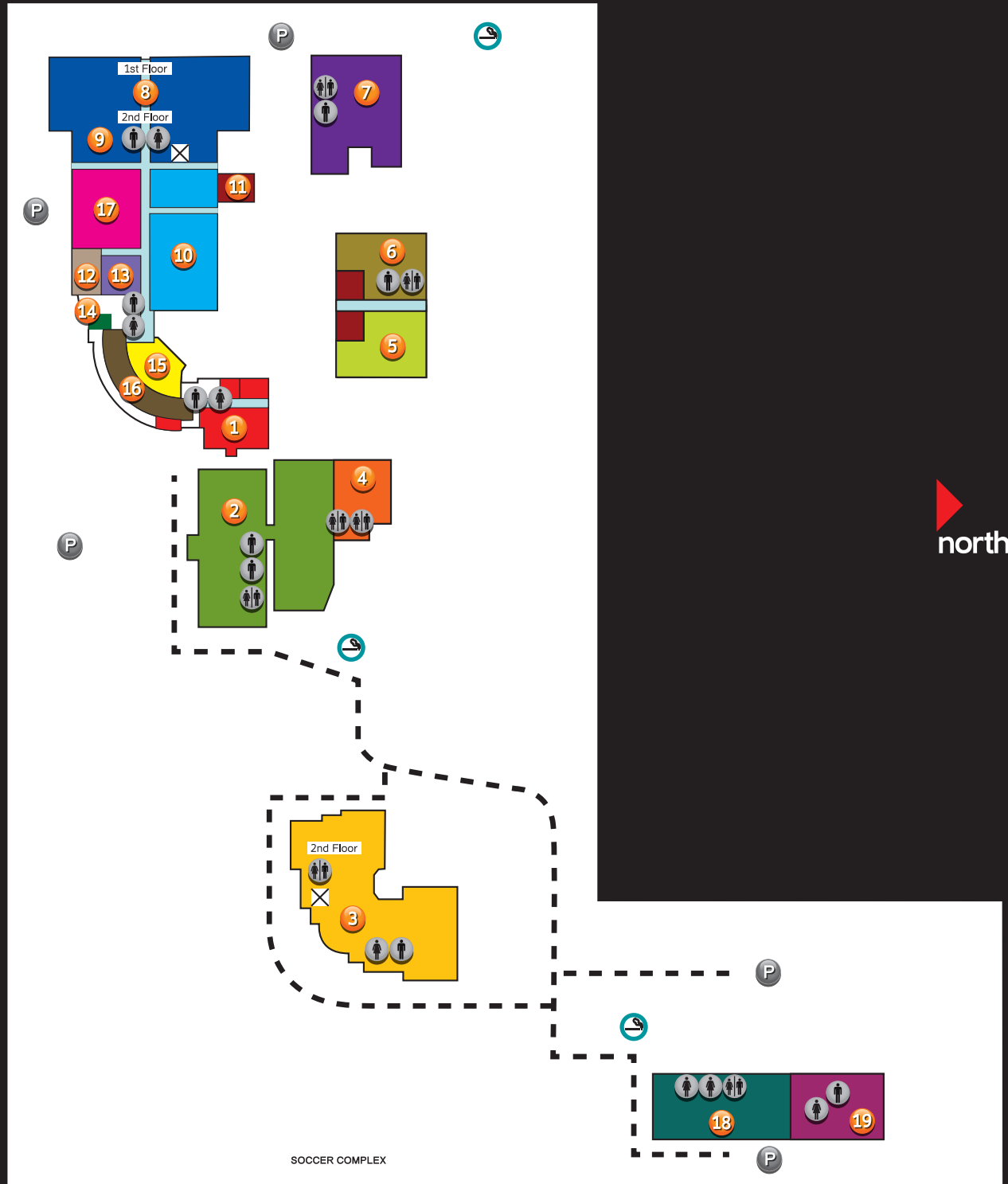
South 24th Avenue

west

south

West Washington Avenue

north



South 16th Avenue

east

Perry Street

academic calendar 2016-2017

SUMMER QUARTER 2016	June 27 July 4 August 1 - 12 September 5 September 29	Summer Quarter Begins Independence Day, No Classes Summer Break, No Classes Labor Day, No Classes Summer Quarter Ends, Graduation
FALL QUARTER 2016	October 3 November 10 November 11 November 24 November 25 December 15 December 19 - January 2	Fall Quarter Begins Veterans Day Observed No Day Classes, Except HVAC/R & ELEC Veterans Day, No Night Classes Thanksgiving, No Classes No Night Classes Fall Quarter Ends, Graduation Winter Break, No Classes
WINTER QUARTER 2017	January 3 January 16 February 20 March 22	Winter Quarter Begins Martin Luther King, Jr. Day, No Classes Presidents' Day, No Classes Winter Quarter Ends, Graduation
SPRING QUARTER 2017	March 27 - 31 April 3 May 29 June 15	Spring Break, No Classes Spring Quarter Begins Memorial Day, No Classes Spring Quarter Ends, Graduation

CHANGES DISCLAIMER

This catalog is current as of the date of publication. Perry Technical Institute reserves the right to make changes at any time to any provision of this catalog, including the amount of tuition and fees; academic programs and courses; Perry Technical Institute policies and procedures; faculty and administrative staff; academic calendar; and other dates and provisions. Perry Technical Institute also reserves the right to make changes in equipment and instructional materials, to modify curriculum and, when size and curriculum permit, to combine classes.

From time to time, it may be necessary for Perry Technical Institute to make changes to this catalog due to the requirements and standards of Perry Technical Institute's accrediting body, state authorization agency or the United States Department of Education, or due to the market conditions, employer needs or for other reasons.

To see the most current version of the catalog, please visit our website at perrytech.edu/doc/catalog.pdf.

enrollment

Perry Technical Institute welcomes prospective applicants who are seeking education in one of the school's 12 training programs. Perry Technical Institute admits students of any race/color, sex, sexual orientation, creed, marital status, national origin, age, and disability to all rights, privileges, programs, and activities generally accorded or made available to students at the school. The school does not discriminate on the basis of race, color, religion, national origin, age, ancestry, sex, veteran or military status, sexual orientation, or the presence of any sensory, mental, or physical disability or the use of a trained guide dog or service animal by a person with a disability in its programs and activities. All applicants must be high school graduates or have earned a General Education Development Certificate (GED), and be at least 16 years of age. Perry Technical Institute programs are considered full-time and run year-round.

ENROLLMENT PROCEDURES

To apply for admission, applicants should contact an Admissions representative at Perry Technical Institute in writing, by telephone, or through the website Institute to request program information and to take a tour of the school facilities:

Perry Technical Institute
2011 W. Washington Ave.
Yakima, WA 98903
509.453.0374
toll-free 888.528.8586
perrytech.edu

Once applicants have made a decision to apply they should contact Enrollment Services to complete the following requirements in order to be enrolled into the program of their choice. Candidates will confirm they have already received a catalog or will receive one at the time of acceptance to Perry Technical Institute. Enrollment Services will review the application for enrollment and notify the applicant in writing the status of enrollment to the school.

ENROLLMENT REQUIREMENTS

Addendum: pg. 1

- 1) Completed application for enrollment submitted to Perry Technical Institute.
- 2) Pay the \$45 registration fee and pass the entrance exam for the appropriate program.
- 3) Proof of satisfactory completion of high school equivalent education and valid state-issued photo ID or driver's license.
- 4) Payment of \$500 tuition deposit to ensure a starting date.
- 5) Signed enrollment contract and attendance at mandatory student orientation.

Applicants to the Automotive, Agricultural Equipment Technician, and HVAC/R programs must have a valid driver's license and must provide a three-year driving abstract. Precision Machining & Manufacturing applicants must interview with the Department Head. Medical Assistant Program applicants must successfully pass a criminal background check.

Perry enrolls students based on the date on which their enrollment requirements are complete. When classes reach capacity, students are automatically enrolled in the next available start date. Students requesting to be placed on the waiting list will also be automatically enrolled for the next available start date. Students who request a change in enrollment date will be charged a \$45 registration fee at the time of the third request.

For more information regarding admission requirements and policies, please contact the Enrollment Office.

ENROLLMENT CAPACITY

The stated capacity for each program refers to both the classroom and laboratory settings.

AET	20 per section, 20 total
AUTO	16 per section, 64 total
BTA	24 per section, 48 total
CST	20 per section, 20 total
ELEC	22 per section, 176 total
HVAC/R	22 per section, 88 total
ITCS	24 per section, 96 total
INSTRU	22 per section, 176 total
MED	24 per section, 48 total
MOAC	24 per section, 48 total
PMM	12 per section, 48 total
WLD	20 per section, 60 total

ENTRANCE EXAMINATION REQUIREMENTS

Applicants must pass the entrance exam with the following score(s). Please refer to the program lettering system on page 9 of the catalog.

	Program								
	AU AET CST	BTA	EL	RE	IN	ITC	PMM	MED MOA	WLD
Pre-Algebra					45				
Algebra					27				
IT Algebra						70			
Machine Math							70		
General Math	70	70	70	70				70	70
Mechanical	55		70	65	65	50	65		65
Color				90		90			
Writing		65							
Reading	65	65	65	65	65	65	65	65	65
Typing (WPM)		20						20	

Note: Applicants are not required to complete exams that are "shaded" in the table above. Scores are percentage based with the exception of typing, reading, and writing. Typing is based upon words per minute. Reading and writing are based upon Compass Exam benchmarks for all programs. Instrumentation pre-algebra and algebra scores are also based upon Compass Exam benchmarks. Applicants who fail two consecutive algebra exam attempts will be required to enroll and complete the PTI evening algebra course or an comparable approved course. Applicants who fail any of the PTI entrance examinations four consecutive times will not be allowed to re-test until proof of approved remedial course completion has been provided.

HOUSING

The school does not provide housing for students. Subject to availability, dorm accommodations are available on the Yakima Valley Community College campus for eligible students. Information on rental units and dorm accommodations may be obtained from Enrollment Services or through the Perry website, www.perrytech.edu/students/resources.html.

TRANSFER OF CREDIT POLICY

Due to the unique occupational nature of the courses offered at Perry Technical Institute, transfer credits from other post-secondary institutions are not accepted.

Credits earned at Perry Technical Institute may or may not be transferrable to other institutions depending upon policies of the receiving institution. Students wishing to transfer credits outside the institution should contact the receiving institution to determine which courses and how many credits will be transferrable.

ARTICULATION AGREEMENTS

A collaborative program between Perry Technical Institute and Yakima Valley Community College provides students with the opportunity to earn an Associate of Applied Science in three technical areas*. Upon acceptance into a designated Perry Technical Institute program, students may begin taking required classes at Yakima Valley Community College. This can be done while waiting for entrance into the technical portion of their degree, while they complete the technical portion, or after they completed their technical portion.

An Associate of Applied Science along with the technical program allows students to work more effectively in their chosen field and to help them compete for advancement opportunities. An official referral from Perry Technical Institute is required for students enrolling under the terms of this agreement.

In addition to completing their technical program at Perry Technical Institute, students complete credits at Yakima Valley Community College. Credits are designated as core requirements and are required for all programs. For additional information, please contact Yakima Valley Community College at 509.574.4956 (www.yvcc.edu/academics/programs/perrycombdegree/pages/default.aspx) or Perry Technical Institute at 509.453.0374.

An articulation between Perry Technical Institute, the Yakima School District, and the Yakima Valley Technical Skills Center provides high school students with the opportunity to earn credit for one quarter in Perry's Automotive and Welding programs. In order to qualify, high school students must meet all terms of the articulation agreement, including but not limited to, providing Perry Technical Institute with transcripts that depict transferable credits have been earned.

*The Instrumentation & Industrial Automation Technology, Heating, Ventilation, Air Conditioning & Refrigeration Technology, and Electrical Technology programs have articulation agreements with Yakima Valley Community College.

financial assistance

FINANCIAL AID

Perry Technical Institute offers a variety of financial assistance to eligible students. Aid in the form of grants, loans, jobs, and scholarships help offset the cost of educational expenses. Financial aid is administered in accordance with established state and federal policies and philosophies. The basis of these policies is the belief that financing a student's education is the responsibility of the student and family.

ELIGIBILITY

A student's financial aid award is based on a demonstrated financial need. Need is determined from analysis of the Free Application for Federal Student Aid Form (FAFSA). This form is analyzed to determine the expected contribution from the student and the student's family toward the educational expenses. Financial need is the difference between total educational expenses for an academic year and the student/family contribution. Financial aid should be viewed as a

supplement only after the full resources of the student and family are committed.

SATISFACTORY ACADEMIC PROGRESS REQUIREMENTS FOR FINANCIAL AID RECIPIENTS

Satisfactory Academic Progress (SAP) holds students accountable for meeting the minimum academic standards in an eligible program of study per federal and state financial aid regulations. SAP is reviewed by the Director of Financial Aid before financial aid is awarded and is reviewed at the end of every term that aid is received.

Students must be making SAP in order to remain eligible for financial aid. To fulfill SAP requirements, students must:

- 1) Complete each term with a minimum GPA of 2.0 and have a minimum cumulative GPA of 2.0.
- 2) Quantitative/credit completion rules: All students at Perry Technical Institute (PTI) attend full time in programs exceeding 12 credit hours per term. Students must successfully complete 100% of the credits associated with the full-time awards (meeting the minimum GPA 2.0) or aid will be terminated.
- 3) Progress in a program of study at a pace that allows completion within the maximum time frame of 150% (federal funds) and 125% (state funds) of program length.
- 4) Courses must be completed on time.

If a student withdraws or is terminated, the Dean of Education or Associate Dean notifies the Director of Financial Aid and return of Title IV funding is calculated (if applicable) and financial aid for future terms is terminated. If at the end of any term a student is not making SAP, the Registrar notifies the Director of Financial Aid and financial aid funds for future terms are terminated. If possible, a Financial Aid representative meets with the student to discuss termination of eligibility. If not, they will be notified regarding eligibility by phone or mail. If a student does not make SAP at the end of the payment period and they wish to continue in the program of study, the student will need to repeat all of the coursework in that payment period based on our school's academic policies.

If a student reenrolls, he or she will not be eligible for federal or state financial aid for his or her first term back. In order to regain eligibility, the student must successfully complete all credits in the first term back. After successfully completing the term with a minimum of 2.0 GPA, his or her financial aid will be reinstated for future terms. The student will also be on probation for one quarter followed by an academic plan for up to three quarters for pace of completion.

If, due to extenuating circumstances, the student fails to meet SAP requirements, he or she may appeal the termination of his or her financial aid to the Financial Aid Office. Appeals are completed on the Financial Aid General Appeal Form located on our website <https://www.perrytech.edu/admissions/costs.html> under forms. Appeals are reviewed based on a documentable extenuating circumstance impacting academic performance. Extenuating circumstances are considered to be past events that are no longer barriers to academic progress. Academic reinstatement by PTI does not constitute reinstatement of financial aid eligibility.

A Financial Aid appeal must meet one of the following conditions:

- 1) Serious illness or injury to student or immediate family member (parent, spouse, sibling, child) that required extended recovery time

- 2) Death of an immediate family member
- 3) Drug/Alcohol treatment
- 4) Medical/Significant trauma in student's life that impaired the student's emotional and/or physical health
- 5) Withdrawal due to military service
- 6) Other unexpected circumstances beyond the control of the student

Note: Circumstances related to the typical adjustment to college life such as working while attending school, financial issues related to paying bills and car maintenance/travel to campus are not considered as extenuating for purposes of appealing financial aid.

The appeal must include a statement from the student as to why he or she failed to make satisfactory academic progress and how the student is now in a position to be academically successful.

Appeals are reviewed by an appeal committee and all decisions are final. Students will be notified in writing of appeal decision within 10 business days. Appeals may be submitted to the Financial Aid Office, mailed to PTI, faxed to 509.453.0458 or emailed to financialaid@perrytech.edu.

An otherwise eligible student in a repeated quarter resulting from a successful appeal may receive financial aid for a maximum of one repeated term per FSA Regulations. The student will also be on probation for one quarter followed by an academic plan for up to three quarters for pace of completion. If the student does not meet both the minimum 2.0 GPA SAP standards by the end of the repeated quarter, and be on pace for completion after three terms following the failed term, financial aid will be terminated.

INCOMPLETES

If at the end of the term the student has an incomplete, no financial aid is disbursed for the following term until the term is completed and SAP can be determined.

REINSTATEMENT OF AID

Students' financial aid may be reinstated in one of two ways:

- 1) By having the Financial Aid General Appeal Form approved.
- 2) By remaining in school and re-establishing compliance with the minimum cumulative GPA (qualitative) and attendance (quantitative) standards.

WITHDRAWALS (REFUNDS)

Perry Technical Institute uses the student's last date of attendance as the official withdrawal date. Up through the 60% point in each payment period or period of enrollment, a pro-rata schedule is used to determine how much FSA Program funds the student has earned at the time of withdrawal. The Return of Title IV Fund Calculation is used to determine the amount that must be returned by the student and school.

The amount of financial aid earned is the percentage of aid earned multiplied by the total amount of aid that was disbursed for the payment period or period of enrollment as of the day the student withdrew.

- 1) If the day the student withdrew occurs on or before the student completed 60% of the payment period or period of enrollment for which the assistance was awarded, the percentage earned is equal to the percentage of the payment period for which assistance was awarded that was completed.

- 2) If the day the student withdrew occurs after the student has completed greater than 60 percent of the payment period or period of enrollment, the percentage earned is 100%.

Following federal policy using the Title IV Fund Calculation, the percentage of the payment period or period of enrollment completed is determined by calculating the total number of calendar days in the payment period divided into the number of calendar days completed in that period as of the day the student withdrew.

Funds will be returned in the following order:

- 1) Unsubsidized Federal Stafford Loans
- 2) Subsidized Federal Stafford Loans
- 3) Perkins Loans
- 4) Federal/Direct Plus Loans
- 5) Federal Pell Grants
- 6) FSEOG

REFUNDING STATE AID FUNDS STATE NEED GRANT (SNG), COLLEGE BOUND SCHOLARSHIP (CBS), AND PASSPORT TO COLLEGE SCHOLARSHIP (PTC)

If a student withdraws and his/her last date of attendance is prior to or at 50% of the term, the SNG and/or CBS repayment will be based on the percent of the term not completed, following the procedures outlined in the Washington Student Achievement Council's repayment methodology. Funds will be returned to SNG and/or CBS and/or PTC via the Washington Student Achievement Council's secure portal, CSAW. If a student last date of attendance is after 50% of the term, the aid is considered 100% earned per the State Grant Aid repayment policy and no repayment is processed.

SBCTC OPPORTUNITY GRANT (OG) AND WORKER RETRAINING GRANT (WRT)

For refunds/repayment, the Perry Technical Institute Tuition Refund Policy will be followed.

Percentage of student's attendance for term	Refund due to state (% of OG)
0% - first 10%	90%
11% - 25%	75%
26% - 60%	50%
More than 60%	0%

PTI FOUNDATION SCHOLARSHIPS

In 1992, a group of community volunteers pledged their commitment to Perry Technical Institute by forming Perry Technical Foundation. The foundation's mission is to raise funds for student scholarships, loans, instructional equipment, and capital improvements which enrich learning on the Perry campus.

With the support of alumni, community members, foundations, and industry, Perry Technical Foundation has established a strong scholarship program designed to assist current students working toward their career goals. Over the last five years, Perry Technical Foundation has awarded nearly \$2 million in scholarships to deserving students.

Perry Technical Foundation scholarships are offered to current Perry Technical Institute students in the spring and fall of each year. The number of scholarships will vary depending on available funding.

In addition to scholarships provided by Perry Technical Foundation, the foundation office maintains a list of outside scholarships available to Perry Tech students. Scholarship information is accessible in Student Services, the Financial Aid Office and at <https://www.perrytech.edu/admissions/costs.html>. Please visit the Foundation Office for more information or for assistance in completing scholarship applications.

When calculating refunds, the official date of a student's termination is the last actual date of recorded attendance. All refunds will be paid within 30 calendar days of the student's official termination date.

Any student receiving federal or state financial aid who officially or unofficially withdraws from Perry Technical Institute will have funds returned to the appropriate financial aid program based on the regulations governing the program.

tuition and fees

TUITION PAYMENT REQUIREMENTS

Tuition is billed on a quarterly basis. Tuition is generally due at the start of each program quarter, however, there is an optional Tuition Payment Plan (TPP) available which may be subject to a fee and late charges, and which allows a maximum of three payments over the term. A student with a balance owing on his/her account may not be allowed to continue to the next term.

DELINQUENT ACCOUNTS

In the event a student's account is delinquent, the student may be required to pay late fees and all reasonable collection costs, including attorney fees and collection agency fees in accordance with Washington State law. Student transcripts may also be held if an account is delinquent. Students will not receive a certificate of graduation or a degree if they have a balance owing. Any delinquent institutional debt must be cleared prior to re-enrollment.

RETURNED CHECK PROCESSING FEE

A charge of \$32 is assessed each time a student's check is returned by a bank withholding payment. In addition, the student may not be permitted to pay by check for any future payments.

CANCELLATION & REFUND POLICY *Addendum: pg. 1*

The school will refund all money paid if the applicant is not accepted including instances where a starting class is cancelled by the school.

The school will refund all money paid if an applicant cancels within five business days after the day the enrollment contract is signed or an initial payment is made, as long as the applicant has not entered class.

If the applicant cancels after the fifth business day after signing the enrollment contract or making an initial payment, but prior to attending class, the school will retain the registration fee not to exceed \$100.00.

If training is terminated after the student enters class the school will retain 100% of all assessed fees with the exception of lab fees. The school will refund a pro-rated portion of tuition and lab fees based on the following schedule:

If the student completes training through:	The school refunds this amount to student:
0% - first 10%	90%
11% - 25%	75%
26% - 60%	50%
More than 60%	0%

The training completion percentage is calculated by dividing the number of scheduled class days through the date of student's termination by the total number of scheduled class days in the term.

program cost breakdown

All fees listed are mandatory and required for the completion of the program. Additional certifications and field trips are optional and costs will be assessed separately.

The State of Washington does not allow for tax-exemption of items purchased for use in the state such as books and tools for instruction received in the State of Washington.

COSTS OF ENROLLMENT FOR 12-MONTH PROGRAMS

	(SUM 2016) AET	(SUM 2016) AUTO	(FALL 2016) CST	(FALL 2016) MED	(SUM 2016) MOAC	(SUM 2016) PMM	(SUM 2016) WELD
Tuition	\$16,354.00	\$16,354.00	\$16,558.50	\$16,558.50	\$16,048.00	\$16,354.00	\$16,354.00
Lab Fees	\$200.00	\$240.00	\$600.00	\$200.00	\$120.00	\$400.00	\$2,000.00
Technology Fees	\$60.00	\$60.00	\$60.00	\$220.00	\$220.00	\$60.00	\$60.00
First Aid/CPR Fee	\$25.00	\$25.00	\$25.00	\$35.00	\$25.00	\$25.00	\$25.00
Student Accident Insurance Fees	\$88.00	\$88.00	\$88.00	\$88.00	\$88.00	\$88.00	\$88.00
Graduation Fee	\$54.00	\$54.00	\$54.00	\$54.00	\$54.00	\$54.00	\$54.00
Industry Certification Fees		\$15.00					
Total Tuition and Fees	\$16,781.00	\$16,836.00	\$17,385.50	\$17,155.50	\$16,555.00	\$16,981.00	\$18,581.00
Additional Estimated Costs							
Books (average)	\$175.00	\$150.00	\$400.00	\$1,250.00	\$3,825.00	\$800.00	\$325.00
Tools (average)	\$2,175.00	\$2,900.00	\$650.00	\$975.00	\$975.00	\$3,175.00	\$1,600.00
Materials (average)	\$250.00	\$225.00		\$225.00	\$175.00	\$15.00	\$75.00
Uniform (average)	\$125.00	\$125.00					
Total Additional Estimated Costs	\$2,725.00	\$3,400.00	\$1,050.00	\$2,450.00	\$4,975.00	\$3,990.00	\$2,000.00
Total Cost of Enrollment	\$19,506.00	\$20,236.00	\$18,435.50	\$19,605.50	\$21,530.00	\$20,971.00	\$20,581.00

COSTS OF ENROLLMENT FOR 18-MONTH PROGRAMS

	(SUM 2016) BTA
Tuition	\$24,473.00
Lab Fees	\$150.00
Technology Fees	\$330.00
First Aid/CPR Fee	\$25.00
Student Accident Insurance Fees	\$132.00
Graduation Fee	\$54.00
Total Tuition and Fees	\$25,164.00
Additional Estimated Costs	
Books (average)	\$4,500.00
Tools (average)	\$975.00
Total Additional Estimated Costs	\$5,475.00
Total Cost of Enrollment	\$30,639.00

COSTS OF ENROLLMENT FOR TWO-YEAR PROGRAMS

	(SUM 2016) ELEC	(SUM 2016) HVAC/R	(SUM 2016) ITCS	(SUM 2016) INSTRU
Tuition	\$36,688.00	\$33,526.00	\$33,526.00	\$33,526.00
Lab Fees	\$480.00	\$400.00	\$360.00	\$160.00
Field Training Fees	\$600.00			
Technology Fees	\$120.00	\$120.00	\$120.00	\$120.00
First Aid/CPR Fee	\$25.00	\$25.00	\$25.00	\$25.00
First Aid/CPR Renewal Fee	\$20.00			
Student Accident Insurance Fees	\$176.00	\$176.00	\$176.00	\$176.00
Industry Certification Fees		\$35.00	\$70.00	
Graduation Fee	\$54.00	\$54.00	\$54.00	\$54.00
Total Tuition and Fees	\$38,163.00	\$34,336.00	\$34,331.00	\$34,061.00
Additional Estimated Costs				
Books (average)	\$1,500.00	\$600.00	\$750.00	\$1,100.00
Tools (average)	\$2,000.00	\$1,975.00	\$750.00	\$2,440.00
Materials (average)	\$125.00	\$150.00	\$1,350.00	\$375.00
Uniform (average)	\$275.00	\$125.00		
Total Additional Estimated Costs	\$3,900.00	\$2,850.00	\$2,850.00	\$3,915.00
Total Cost of Enrollment	\$42,063.00	\$37,186.00	\$37,181.00	\$37,976.00

academic information

ATTENDANCE POLICY

Addendum: pg. 4

Attendance is mandatory. The scheduled start and end times are as follows:

AET	Monday – Thursday	7:30 a.m. – 4:00 p.m.
AUTO	Monday – Thursday	7:30 a.m. – 4:00 p.m.
BTA	Monday – Thursday	7:30 a.m. – 4:30 p.m.
CST	Monday – Thursday	7:00 a.m. – 3:30 p.m.
ITCS	Monday – Thursday	7:30 a.m. – 4:00 p.m.
INSTRU	Monday – Thursday	7:30 a.m. – 4:00 p.m.
HVAC/R	Monday – Thursday	7:15 a.m. – 4:10 p.m.
ELEC	Monday – Thursday	6:50 a.m. – 4:05 p.m.
MOAC	Monday – Thursday	7:30 a.m. – 4:00 p.m.
MED	Monday – Thursday	7:30 a.m. – 4:00 p.m.
PMM	Monday – Thursday	7:00 a.m. – 3:30 p.m.
WLD	Monday – Thursday	7:30 a.m. – 4:00 p.m.
Evening Classes	Monday – Friday	4:30 p.m. – 10:00 p.m.
Variable Saturdays		9:00 a.m. – 5:00 p.m.

INSTRUCTOR NOTIFICATION

Students are required to notify the instructor before the scheduled start time each day they are absent or late. Failure to notify the instructor on the day of a tardy will result in a written advising (1st occurrence), and probation (2nd occurrence). Failure to notify the instructor on the day of an absence will result in immediate probation.

If a student fails to notify the instructor of an absence or tardy, the instructor is responsible to reach out to the student by the first scheduled break time (via phone and/or email). Once the instructor has made an attempt to contact the student, the instructor notifies the Attendance Coordinator and the assigned dean. If the student has not shown up for class or contacted the instructor by the scheduled lunch time, the assigned dean contacts the emergency contact. The student will be dismissed after three consecutive days of unexcused absences without notification.

CLOCKING-IN

Students are required to clock-in each day when arriving and clock-out when leaving, at any given time of the day, other than at stated break periods. Student attendance is recorded by using an electronic time management system. The time displayed on the time clock is the time that will be accounted for. Students are provided with an ID number and scan card. The cost to replace the ID scan card is \$5. Note: If the scanner does not read a card, the student is required to manually punch in his/her assigned student ID number.

POINTS

If a student misses up to three hours of scheduled class time in a day, the student will accrue one point. If a student misses more than three hours of scheduled class time in a day, the student will accrue three points. Once a student has accrued 8 or more points in a term, the student is placed on attendance probation for the remainder of the term. If a student amasses additional points while on attendance probation, he or she may be subject to immediate dismissal.

Students are limited to two one-point infractions in a month. For example, if a student misses one hour of scheduled class time (accruing one point) on the 16th day of a given month, the student will only be allowed one more one-point infraction until the 16th day of the following month. At the third one-point infraction in a month,

the student will be placed on probation for one month or the end of the term, whichever comes first, and may not accrue any points during the probation period. If additional points are amassed during that month, the student's probation will be extended to the end of the term. Any points accumulated after the probation has been extended may result in immediate dismissal.

If a student misses scheduled class time without clocking-out, the student's instructor will notify the Attendance Coordinator, who will document the missed time.

CLASS CUT

Defined as not being present during scheduled class time at other than stated break periods, or leaving class prior to the end of the scheduled instruction period without instructor permission. This will result in immediate probation.

Following three consecutive days of absences without notification, a student will be dismissed.

Scanning or keying another student's card/ID number will result in dismissal of all parties involved. Grades, financial aid and Department of Veterans Affairs agencies sponsoring students are dependent on accurate records of attendance.

EMERGENCY ABSENCE

An emergency absence is defined as an officially excused period of time, while maintaining the status of student. An emergency absence request must meet one of the following conditions:

- 1) Military service
- 2) Medical restriction
- 3) Funeral for immediate family member
- 4) ER visit for student or immediate family member

An emergency absence will not be granted for failure to make satisfactory academic progress.

A request for leave must be made to the Dean/Associate Dean of Education, or time away from school will be subject to point accrual. The written request to the Dean of Education must include dated third-party verification of the reason for the emergency absence as well as a typed letter outlining the reason for the request. The Department of Veterans Affairs and the Financial Aid Office will be notified immediately when the student is granted an emergency absence. An emergency absence will be for a maximum of 16 school days. Failure to return to class following the emergency absence may result in dismissal. Emergency requests must be submitted within five school days of returning to class. Only one emergency absence may be granted per term for each student.

MAKE-UP WORK

Make-up work will be available for the following reasons: medical emergency, military leave, or other approved family crisis. To request make-up work, the student must provide the instructor with third-party verification of the reason.

The following types of make-up work are allowed: textbook assignments, quizzes, tests, projects, and lab work.

CLOCK HOUR/CREDIT HOUR CONVERSION SYSTEM

A clock hour is defined as 50 minutes of instruction in a 60-minute period of time. A credit hour is defined as an amount of work

represented in intended learning outcomes and verified by evidence of student achievement for academic activities as established by the institution comprised of the following units: didactic learning environment; supervised laboratory setting of instruction; externship; and out-of-class work/preparation.

One quarter credit hour equals 30 units comprised of the following activities:

- One clock hour in a didactic learning environment = 2 units
- One clock hour in a supervised laboratory setting of instruction = 1.5 units
- One hour of externship = 1 unit
- One hour of out-of-class work and/or preparation for the didactic learning environment or supervised laboratory setting of instruction that are designed to measure the student's achieved competency relative to the required subject matter objectives = 0.5 units.

For financial aid and Veterans Affairs purposes, the above conversion factors do not apply.

COURSE IDENTIFICATION SYSTEM

Courses have titles represented by letters and numbers. The first few letters refer to the program, and the first number of the following three numbers represents the year. Note: Course crossover may occur in some programs.

LETTERING SYSTEM

Addendum: pg. 4

AET	Agricultural Equipment Technician
AU	Automotive Technology
BTA	Business Technology & Accounting
CST	Construction
EL	Electrical Technology
IN	Instrumentation & Industrial Automation Technology
ITC	Information Technology & Communication Systems
MA/PM	Precision Machining & Manufacturing
MED	Medical Assistant
MOA	Medical Office Administration & Coding
RE	Heating, Ventilation, Air Conditioning & Refrigeration Technology
WLD	Welding Technology

STANDARDS OF PROGRESS POLICY

Addendum: pg. 4

GRADING

The progress or grading system by which a student will be evaluated is as follows:

Grade	GPA	Grade	GPA
A	4.0	C	2.0
A-	3.7	C-	1.7
B+	3.3	D+	1.3
B	3.0	D	1.0
B-	2.7	D-	0.7
P/F	Pass/Fail	R	Repeated
I	Incomplete	CT	Credit Awarded by Testing
W	Withdrawal		

An incomplete grade will revert to a failing grade if it is not completed by the end of the term. Only in the case of an emergency absence will an incomplete be carried into the next term.

Students may view their grades or print an unofficial transcript through my.perrytech.edu at any time. A copy is sent to the student's counselor (if applicable) at the end of each term and the documentation is maintained in the school's database.

GRADE APPEAL POLICY

A student who wishes to appeal a grade, must submit a letter to the Dean of Education within 10 business days of the completed term. The letter must describe any and all circumstances deserving further consideration. The burden of proof in an appeal lies with the student. The Dean of Education will convene an appeal committee consisting of the department head, instructor, and a designated representative of the school in order to review the appeal. The student will be notified within one week of the official appeal decision.

SATISFACTORY ACADEMIC PROGRESS

The student must be making satisfactory academic progress in order to remain eligible for continuous enrollment under regular student status. Students not making satisfactory academic progress will be placed on probation. A student is graded not only on test scores, but also on participation in class, attendance, performance in lab, and conduct.

Students must: Complete each quarter with a minimum GPA of 2.0, and the minimum grades established for each subject within the department.

DISCIPLINARY HIERARCHY

Faculty members will regularly monitor their students' performance in class and provide advising as necessary or requested. If a student has not met the criteria of satisfactory progress in the areas of conduct, attendance, or academics at any point during the term, the following hierarchy will be observed when applicable:

- 1) Verbal warning
- 2) Advising
- 3) Probation
- 4) Last Chance Agreement*

A student is encouraged to meet regularly with his or her instructor while on probation. A copy of the signed document will be given to the student, the program counselor (if applicable), the Financial Aid Office, and the original will be filed in the student's file. While on probation, a student remains eligible to receive Title IV funding. If the student has not achieved satisfactory academic progress by the end of the probation term, he/she may be dismissed.

The school reserves the right to dismiss students who have exceeded three probations. Financial aid programs do not typically pay for repeated terms.

*Receiving three probations during the duration of a training program will result in a last chance agreement. Once a student is placed on a last chance agreement, any subsequent probations will result in immediate dismissal from the program. Should the student pursue re-enrollment, the last chance agreement will remain in effect.

REPEATING QUARTERS

A student failing to successfully complete the quarter may petition to repeat the quarter. Upon successful completion of the repeated quarter, the student will be granted the grade for the quarter successfully completed in lieu of the previous grade.

No student will be allowed to repeat quarters that result in a total time of enrollment exceeding 1.5 times the specified time for the program. Repeating quarters may affect financial aid eligibility.

All failures requiring the retake of courses will be charged the current academic year quarterly rate.

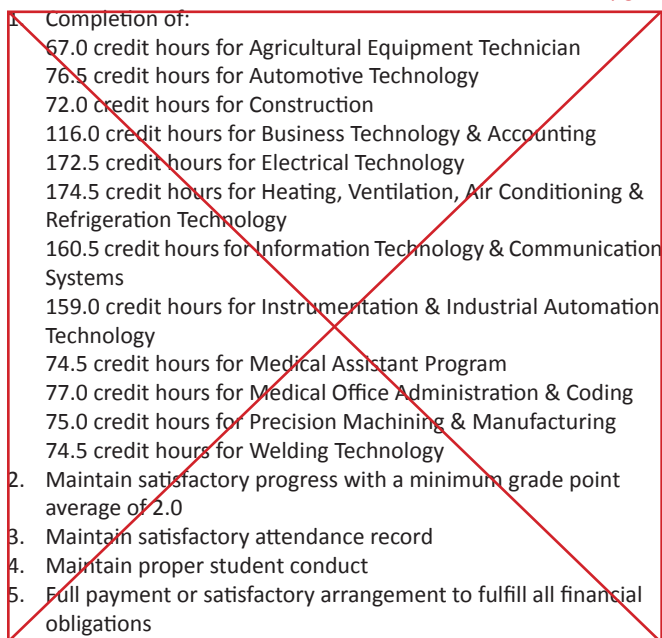
TRANSFER/CHANGE OF PROGRAM

Students wishing to change the program they are enrolled in must complete a new enrollment application, and may be required to retest and meet with the Dean of their new program. Admission requirements for the new program the student wishes to pursue will apply. Failure to complete a term with satisfactory academic progress may affect financial aid eligibility. Transfer students will not be given preferred status, and enrollment in a different program is available on a first-come, first-served basis.

Please see the Transfer of Credit policy regarding transferring credits outside the institution.

GRADUATION REQUIREMENTS

Addendum: pg. 4

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- 1. Completion of:
 - 67.0 credit hours for Agricultural Equipment Technician
 - 76.5 credit hours for Automotive Technology
 - 72.0 credit hours for Construction
 - 116.0 credit hours for Business Technology & Accounting
 - 172.5 credit hours for Electrical Technology
 - 174.5 credit hours for Heating, Ventilation, Air Conditioning & Refrigeration Technology
 - 160.5 credit hours for Information Technology & Communication Systems
 - 159.0 credit hours for Instrumentation & Industrial Automation Technology
 - 74.5 credit hours for Medical Assistant Program
 - 77.0 credit hours for Medical Office Administration & Coding
 - 75.0 credit hours for Precision Machining & Manufacturing
 - 74.5 credit hours for Welding Technology
 - 2. Maintain satisfactory progress with a minimum grade point average of 2.0
 - 3. Maintain satisfactory attendance record
 - 4. Maintain proper student conduct
 - 5. Full payment or satisfactory arrangement to fulfill all financial obligations

CREDENTIALS AWARDED

Business Technology & Accounting students who satisfactorily complete their course of training are granted Associate of Applied Science degrees. Students in all other programs who satisfactorily complete training are granted Certificates of Completion.

TRANSCRIPTS

Students who would like physical copies of transcripts may request up to three copies at a time at no cost. Transcripts in excess of that limit will be charged \$3 for each additional unofficial transcript and \$10 for each additional official transcript. Unofficial transcripts are available free of charge at my.perrytech.edu.

CONDUCT AND DISCIPLINARY PROCEDURES AND POLICIES

CONDUCT STANDARDS

Admission to Perry Technical Institute carries with it the expectation that students will conduct themselves as responsible members of the

school community, that they will comply with the rules and regulations of the institution, maintain high standards of integrity and honesty, respect the rights, privileges, and property of other members of the school community, and will not interfere with legitimate Perry Technical Institute affairs.

Perry Technical Institute maintains the right to make and enforce rules for conduct. This includes the right to dismiss at any time a student whose conduct, academic standing, or health is such that the Administration believes it undesirable for that student to continue at Perry Technical Institute.

A student policy handbook is provided to all new students the first day of class. The booklet provides a complete statement of the policies and procedures and describes student rights and responsibilities which govern students attending Perry Technical Institute, including any disputes involving the school, its faculty or staff, and the student.

TERMINATION OF ENROLLMENT

WITHDRAWAL

Students who voluntarily withdraw from school must complete a Withdrawal Form and have it signed by specified school officials in order to officially close their records. Withdrawal forms are available from the Dean of Education.

DISMISSAL

The school reserves the right to dismiss students for any of the following reasons:

- 1) Violation of probation
- 2) Violation of a last chance agreement
- 3) Exceeding three probations
- 4) Three consecutive days of unexcused absences
- 5) Scanning or keying another student's card/ID number for attendance
- 6) Exceeding five combined absences (unexcused and/or excused)
- 7) Aggressive, harassing, or discriminatory acts against other students or employees
- 8) Failure to pay tuition, fees, books, or tools
- 9) Failure to meet Satisfactory Academic Progress (SAP)
- 10) Failure to follow school procedures and policies
- 11) Acts of theft or dishonesty
- 12) Failure to comply with safety regulations
- 13) Malicious damage to school property
- 14) Insubordinate acts against staff or other Perry Technical Institute employees
- 15) Drug/alcohol abuse
- 16) Disruption of the learning environment

The Dean/Associate Dean of Education will conduct a full hearing of the facts and make a recommendation to the President. The authority to dismiss a student is vested in the President and the President's decision following a review of the facts is final. In the event of the President's absence, the authority to dismiss a student is vested in the Dean of Education.

After terminating enrollment, students will not be allowed back into the classroom or lab area for forgotten items without permission from the Dean of Education.

APPEAL PROCEDURE

A student who has been dismissed and wishes to appeal that decision must submit a letter to the school President within three business days of the dismissal. The letter must describe any and all circumstances deserving of further consideration. The President will convene an appeal committee consisting of the Department Head, instructor, and designated representatives of the school in order to review the appeal. The student will be notified within one week of the official appeal decision.

RE-ENROLLMENT

Students intending to re-enroll after withdrawing or being dismissed from Perry Technical Institute are required to write a letter addressed to the appropriate Dean that clearly states the following:

- 1) The reason for termination
- 2) The actions taken during the termination period to resolve the problem
- 3) His/her plan to successfully complete the program

ANTI-HARASSMENT POLICY

As a part of continuing efforts by Perry Technical Institute to prevent unlawful discrimination, and pursuant to guidelines issued by the Equal Employment Opportunity Commission and the Washington Human Rights Commission, the school endorses the following policy.

All are reminded that each student is at all times to be treated courteously by fellow students, so that he or she is free from harassment or interference.

Harassment is defined as unwelcome or unsolicited verbal, physical or sexual conduct which creates an intimidating, offensive, or hostile environment. Examples of what may be considered harassment, depending on the circumstances, are:

- Questions or comments that unnecessarily infringe on personal privacy or offensive, sexist, off-color or sexual remarks, jokes, slurs or propositions or comments that disparage a person or group on the basis of race, color, age (40 and over), sex, sexual orientation, pregnancy, gender, creed, disability, religion, national origin, ethnic background, military service, or citizenship.
- Derogatory or suggestive posters, cartoons, photographs, calendars, graffiti, drawings, other materials, electronic mail, or gestures.
- Inappropriate touching, hitting, pushing, or other aggressive physical contact or threats to take such action.
- Tampering with another student's work, lab or workspace.

PTI will promptly investigate all charges of violation of this policy. The confidentiality of the person reporting violations will be respected so far as practical in conducting an investigation of such claims. There will absolutely be no retaliation against persons filing such complaints.

NON-FRATERNIZATION POLICY

Students should be assured that the relationships they develop with the PTI community will always be built upon the highest ethical precepts of the workplace and educational profession.

In order to promote the efficient and fair operation of Perry Technical Institute and to avoid misunderstandings, complaints of favoritism, supervision problems, security problems, morale problems,

questions regarding academic achievement and possible claims of sexual harassment, students are strictly prohibited from fraternizing with employees, including but not limited to:

- Dating
- Pursuit to date
- Romantic or sexual relationships with PTI employees (staff or faculty)
- Monetary transactions of any kind

NON-DISCRIMINATION POLICY

Perry Technical Institute does not discriminate on the basis of race, color, religion, national origin, age, ancestry, sex, veteran or military status, sexual orientation, or the presence of any sensory, mental, or physical disability or the use of a trained guide dog or service animal by a person with a disability in its programs and activities. The following person has been designated to handle inquiries regarding the nondiscrimination policies:

Title IX Coordinator/Institutional Effectiveness & Accreditation Manager

Perry Technical Institute
2011 W. Washington Ave.
Yakima, WA 98903
509.453.0374 or 888.528.8586
Email: titleix@perrytech.edu

Seattle Office for Civil Rights
U.S. Department of Education
915 Second Ave., Room 3310
Seattle, WA 98174-1099
Telephone: 206.220.7900
Fax: 206.220.7887
TDD: 877.521.2172
Email: OCR.Seattle@ed.gov

SEXUAL HARASSMENT POLICY

It is the policy of PTI that all students shall have the right to learn in an environment free from any form of unlawful discrimination. Sexual harassment is constituted as discrimination and is prohibited by state and federal laws. Therefore, it is the position of Perry Technical Institute that sexual harassment will not be tolerated. It is a violation of PTI policy for any supervisor or employee, student, male or female, to engage in sexual harassment as defined below. Such conduct will result in disciplinary action up to and including dismissal. PTI strictly prohibits retaliation of any kind against any student who complains of sexual harassment or who participates in an investigation.

The Equal Employment Opportunity Commission (EEOC) defines sexual harassment as:

QUID PRO QUO – Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute quid pro quo when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's enrollment and, or (2) submission or rejection of such conduct by an individual is used as the basis for enrollment decisions affecting an individual.

HOSTILE ENVIRONMENT – Is one in which unwelcome sexual advances, requests for sexual favors and verbal or other conduct of a physical nature occur and when such conduct has the purpose or effect of unreasonably interfering with an individual's performance or creating an intimidating, hostile, or offensive environment.

Some examples of sexual harassment include, but are not limited to:

- Unwanted sexual advances
- Offering benefits in exchange for sexual favors
- Making threatening reprisals after a negative response to sexual advances
- Visual conduct such as leering, making sexual gestures, or displaying sexually suggestive objects, pictures, cartoons, posters
- Verbal conduct such as making derogatory comments, epithets, slurs, sexually explicit jokes, or comments about an individual's body, dress, gender, sexual orientation or gender identity, sexual innuendo, or gossip about sexual relations
- Verbal sexual advances or propositions
- Verbal abuse of a sexual nature, graphic verbal commentary about an individual's body, sexually degrading words to describe an individual, or suggestive or obscene letters, invitations, notes, e-mails, or text messages
- Physical conduct such as touching, assault, or impeding or blocking movement
- Cyber harassment, including but not limited to disseminating information, photos, or video of a sexual nature without consent
- Retaliation for reporting harassment or threatening to report harassment
- Sexual assault, domestic violence, dating violence, and stalking

Consent defined by Washington State law means that at the time of the act of sexual intercourse or sexual contact there are actual words or conduct indicating freely given agreement to have sexual intercourse or sexual contact (RCW 9A.44.010). Sexual intercourse or sexual contact without consent is considered sexual assault and will be treated by PTI as sexual misconduct, treated with all seriousness by the school, and may be subject to criminal proceedings.

Sex or gender based discrimination is viewed as sexual misconduct, and violations of this policy may result in sanctions. Generally speaking, Perry Technical Institute considers Non-Consensual Sexual Intercourse violations to be the most serious of these offenses and the most severe penalties may be imposed, including suspension or expulsion for students and termination for employees.

Perry Technical Institute encourages reports of any unwelcome conduct of a sexual nature. Perry Technical Institute wants to resolve all problems, but it can only do so if it is aware of them. PTI therefore, encourages any student who believes he/she is being harassed or has been subject to sexual misconduct to report any and all incidents of perceived harassment or sexual misconduct. If at any time you observe harassment or feel you are being harassed or if you observe sexual misconduct or feel you are a victim, you should immediately contact:

Title IX Coordinator/Institutional Effectiveness & Accreditation Manager
Perry Technical Institute
509.895.5751
titleix@perrytech.edu

You may report an incident by filing out a Campus Wide Complaint Form, located on my.perrytech.edu, and available from any employee. You may also report online at www.perrytech.edu/students/security. In cases of alleged sexual assault, harassment, etc., victims who come forward to report the incident, and who may have consumed alcohol or drugs will not be subject to the PTI Drug-Free and Alcohol-Free Campus and Workplace Policy for that consumption.

All incidents of harassment that are reported will be investigated. The compliance officer listed above will immediately undertake or direct a fair, thorough, and impartial investigation of the harassment allegations. The investigation will be completed as soon as practical. A determination regarding the reported harassment will be made and communicated to the parties involved. If a complaint of harassment is substantiated, appropriate corrective action, up to and including dismissal, will be taken. Appropriate action will also be taken to correct the effects of the harassment and to deter any future harassment.

Confidentiality: Perry Technical Institute has a legal obligation to investigate complaints and to take reasonable steps to prevent ongoing harassment, discrimination, sexual misconduct, and related retaliation. While we cannot guarantee complete confidentiality, all aspects of the complaint-handling procedure will be dealt with discreetly. However, it may be necessary to include others on a strict need-to-know basis. Students who wish to maintain confidentiality are encouraged to access support through the resources below:

Central Washington Comprehensive Mental Health	509.575.4084
Lower Valley Crisis and Support Center Hotline	509.837.6689
Rape Crisis and Victim Services Hotline	817.927.2737
YWCA	509.248.7796
Yakima County Sexual Assault Resource Center 24-hour line	509.575.4200 or 800.572.8122
Yakima Sexual Assault Unit Hotline	509.452.9675

DRUG-FREE AND ALCOHOL-FREE CAMPUS AND WORKPLACE POLICY

Addendum: pg. 4

In accordance with federal law, Perry Technical Institute has adopted this Drug-Free and Alcohol-Free Campus and Workplace Policy. Perry Technical Institute recognizes that students and employees have a right to a safe and secure campus and workplace and has implemented a drug and alcohol abuse prevention assistance program. Furthermore, Perry Technical Institute recognizes that employers who hire students from its programs demand employees who are drug-free. PTI has adopted this policy to encourage students to develop a healthy lifestyle and to ensure that graduates are able to meet the demands of employers.

STANDARDS OF CONDUCT REGARDING DRUGS AND ALCOHOL

The unlawful manufacture, distribution, dispensing, possession or use of any federally banned substance, prescribed medical drugs that were unlawfully obtained or are being unlawfully or abusively used, drug-related paraphernalia, or being under the influence of controlled substances is prohibited at Perry Technical Institute, in the workplace, on campus, while engaging in school business, and at any activities sponsored by Perry Technical Institute. Returning or arriving to school after consuming drugs or alcohol is prohibited and will result in immediate dismissal.

Any student who is taking a drug or medication, whether or not prescribed by the student's physician, which may adversely affect that student's ability to perform work in a safe or productive manner, is required to report such use of medication to his/her instructor or Department Head. This includes drugs known or advertised as possibly affecting judgment, coordination, or any of the senses, including those which may cause drowsiness or dizziness. A doctor,

dentist, or druggist will determine whether the student can remain at school and whether any work restrictions are necessary. The instructor may request such assistance as he/she desires in making the determination.

HEALTH RISKS

Short-term and long-term effects of drug use vary for the specific drugs, but the following nonexclusive list of health risks have been identified with the use and abuse of illicit drugs and alcohol: confusion, lack of coordination, memory loss; depression; fetal alcohol syndrome; problem pregnancies; sclerosis; circulatory problems; insomnia; heart failure; respiratory arrest; cardiac arrest; seizures; coma; anxiety; paranoia; irritability; fatigue; mental illness; and death.

INSTITUTE SANCTIONS

The Institute will conduct drug and/or alcohol testing under any of the following circumstances:

RANDOM TESTING: Students may be selected at random for drug and/or alcohol testing at any interval determined by the Institute. Any student who enrolls at Perry Technical Institute gives consent to random drug tests as an express condition of his or her enrollment and continued enrollment at Perry Technical Institute.

FOR-CAUSE TESTING: The Institute may ask a student to submit to a drug and/or alcohol test at any time it feels that the student may be under the influence of drugs or alcohol, including, but not limited to, the following circumstances: evidence of drugs or alcohol on or about the student's person or in the student's vicinity, unusual conduct on the student's part that suggests impairment or influence of drugs or alcohol, negative performance patterns, or excessive and unexplained absenteeism or tardiness.

POST-ACCIDENT TESTING: Any student involved in a training-related accident or injury under circumstances that suggest possible use or influence of drugs or alcohol in the accident or injury event will be asked to submit to a drug and/or alcohol test. "Involved in a training-related accident or injury" means not only the one who was or could have been injured, but also any student who potentially contributed to the accident or injury event in any way.

A student will be presumed under the influence of an illegal controlled substance upon any positive finding from a random drug test or reasonable cause drug test given under this policy. Drug testing will be by mass spectrometer test on Perry Technical Institute time and expense by a certified creditable laboratory or medical facility prescribed by the Institute. Random drug test collection will be conducted on the Perry Technical Institute campus with a minimal disruption to class time. Failure to take a drug test, producing a cold sample, or producing a dilute test will result in a positive test result. A positive test result may result in the imposition of sanctions up to and including, but not limited to, suspension and/or dismissal. A student who has been deemed to be under-the-influence may not operate any vehicle on company property or a public roadway. If the student insists on driving, PTI administration will contact law enforcement and report the infraction.

If a student has violated the Drug-Free and Alcohol-Free Campus and Workplace Policy, the Institute may take any of the following actions:

- Disciplinary action including, but not limited to, suspension and/or dismissal, and/or

- Require the student to satisfactorily participate in drug abuse assistance or rehabilitation program approved for such purpose by federal, state or local health, law enforcement, or other appropriate agency.

Any student convicted of any criminal drug statute violation occurring in the workplace, during school hours, or while engaged in Institute business, must notify the President or Dean of Education no later than five (5) days after such conviction.

LEGAL SANCTIONS

In addition to sanctions imposed by the Institute, drug and/or alcohol violations may be referred to the appropriate external authorities. This may result in arrest and conviction under applicable criminal laws of the United States, the State of Washington, or local municipalities. Violations as specified above may result in penalties ranging from fines through imprisonment.

AVAILABLE ASSISTANCE TREATMENT PROGRAMS

Alcoholism and drug dependency are defined as illnesses that may interfere with a student's ability to perform assigned work satisfactorily or that adversely affect classroom behavior. Students are encouraged to voluntarily seek expert assistance for alcoholism, alcohol abuse, or drug dependency. Assistance is available through a variety of professional resources in the community.

Community resources include:

Yakima Valley Farm Workers Clinic - Behavioral Health Services	509.453.1344
Department of Social & Health Services	877.501.2233
Central Washington Comprehensive Mental Health	509.248.1200
Neighborhood Health Services	509.454.4143
Yakima Health District	509.575.4040
Yakima Valley Vet Center	509.457.2736
Merit Resources	509.469.9366
Sundown M Ranch	509.457.0990
Barth Clinic	509.457.5653

WEAPONS AND VIOLENCE POLICY

In order to maintain a safe and secure campus, the possession, use, or threatened use of firearms (including but not limited to martial arts weapons, BB guns, air guns, and paint guns), ammunition, dangerous chemicals, explosives of any kind, or other weapons is strictly prohibited while on school property, and while engaging in school-related work or activities on or off campus. Violation of these safety regulations will result in disciplinary action.

Fixed blades are not allowed. Folding knives with a blade of three inches or less are allowed only as a tool in keeping with the industry standards of the training you are pursuing. Blades longer than three inches are not allowed under any circumstances.

Misuse of personal defense devices (such as pepper spray) is prohibited. The owner is responsible and will be held accountable for any misuse of these devices.

Violence or threats of violence are strictly prohibited. Any threat of violence or harm to students or employees should be reported immediately to your instructor, the Deans of Education, or the Director of Facilities & Safety. The incident should be reported even if you think the threat is a joke. Any act of violence or threat will be subject to discipline and may result in legal action.

Crime Stoppers:

To anonymously report information regarding a security threat or a crime on Perry Technical Institute campus, text "Perry – plus your message" to CRIMES (274637).

STUDENT COMPLAINT/GRIEVANCE PROCEDURE

Perry Technical Institute utilizes policies and procedures for handling student complaints and informs the students in writing of them. When a student has a complaint, he/she is encouraged to follow the chain of command and communicate informally first with the instructor, then the Department Head, and then the Dean/Associate Dean of Education. If the student is still unsatisfied, he/she is asked to file a PTI Complaint Form at the President's Office and then encouraged to make an appointment with the President for further discussion and action.

A student may consider contacting the Workforce Training and Education Coordinating Board. Contact information for the Workforce Training and Education Coordinating Board is as follows:

Workforce Training and Education Coordinating Board
128 Tenth Ave. SW
PO Box 43105
Olympia, WA 98504-3105
360.709.4600
workforce@wtb.wa.gov

More information can be obtained by referencing RCW's Title 28C > Chapter 28C.10 or 28C.10.084 (10) and 28C.10.120 or WACs > Title 490 > Chapter 490-105 > Section 490-105-180

Schools accredited by the Accrediting Commission of Career Schools and Colleges must have a procedure and operational plan for handling student complaints. If a student does not feel that the school has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints reviewed by the Commission must be in written form and should grant permission for the Commission to forward a copy of the complaint to the school for a response. This can be accomplished by filing the ACCSC Complaint Form. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

Accrediting Commission of Career Schools and Colleges
2101 Wilson Boulevard, Suite 302
Arlington, VA 22201 703.247.4212
<http://www.accsc.org/>

A copy of the ACCSC Complaint Form is available at the school and may be obtained by contacting the Institutional Effectiveness & Accreditation Office or online at <http://www.accsc.org/student-corner/complaints.aspx>.

student services

ADVISING & COUNSELING

Career advising is available through instructors or Career Services. Career Services may be reached by phone at 509.453.0374 or in person in the Learning Resource Center.

Academic, attendance, and conduct advising is provided in tandem by the instructor, department head, and assigned program dean.

Students in need of personal counseling may request services through their assigned dean.

FIRST AID/CPR TRAINING

Students are required to obtain a two-year First Aid, CPR, Blood Borne Pathogens, and Automated External Defibrillator certification. Perry Technical Institute offers the certification class on campus. This certification is mandatory and a fee will be applied to the student's account when applicable.

JOB PLACEMENT

The school does not guarantee placement upon completion of a training program. However, Perry Technical Institute offers continuous career services to its graduates and current students to provide assistance with:

- 1) Job search planning and implementation
- 2) Resume and cover letter preparation
- 3) Mock interviews
- 4) Locating job advertisements
- 5) Coordination of company interviews on campus

The Career Services Office may be contacted for more information or to schedule an appointment to receive assistance.

STUDENT ACCIDENT INSURANCE

Perry Technical Institute requires each enrolled student to participate in the school's Student Accident Insurance which covers accidents that occur during on-campus training-related activities, off-campus training-related field work, and unpaid externships. The Student Accident Insurance is mandatory and the fee will be applied to the student's account each term. Information about Student Accident Insurance and claim forms are available through the Facilities & Safety Office.

LEARNING RESOURCE SYSTEM

The school's Learning Resource System materials are integrated into the school's curriculum and program requirements as a mechanism to enhance the educational process and to facilitate positive learning outcomes for students. Perry Technical Institute provides learning resource materials that are commensurate with the level of education provided and appropriate to the courses of study in sufficient quantity and scope to meet the educational objectives of each program. Perry Technical Institute has a partnership with the Yakima Valley Libraries which provides Perry students with 24/7 access to a complete collection of online libraries and databases. In addition, the library offers computers, books, internet/WIFI access, and research assistance. Students will be required to obtain a Yakima Valley Library Card upon enrollment. Students will be trained to locate and use information through the learning resource system.

The PTI Learning Resource Center is located off the Michael G. Smith Hallway. Hours of operation are Monday, 6:30 a.m. to 7:00 p.m. and Tuesday through Thursday, 6:30 a.m. to 6:00 p.m. (excluding school closures and holidays).

veterans affairs

VETERAN EDUCATION BENEFITS

Perry Technical Institute qualifies for all chapters of veteran's aid. Selected programs of study at Perry Technical Institute are approved by the Workforce Training and Education Coordinating Board's State

Approving Agency (WTECB/SAA) for enrollment of those eligible to receive benefits under Title 38 and Title 10, USC.

Perry Technical Institute does not and will not provide any commission, bonus, or other incentive payment based directly or indirectly on success in securing enrollment or financial aid to any persons or entities engaged in any student recruiting or admissions activities or in making decisions regarding the awarding of student financial assistance.

To apply for benefits, you may apply online at <http://gibill.va.gov/>. Return proof of application to the School Certifying Official along with a copy of your DD Form 214. You must also provide copies of transcripts from any other post-secondary institutions that you have attended, and obtain a copy of your Joint Services Military Transcript or Air Force Transcript. Upon completing the enrollment requirements and furnishing required documents for VA files, the School Certifying Official will certify school enrollment to the VA.

MILITARY ACTIVE DUTY POLICY

- 1) A student or military dependent leaving for active duty or due to relocation related to military service during an academic term will receive an Incomplete.
- 2) The student should request to resume academic work within six months of returning from active duty or relocating back to the area.
- 3) The school will place the student in the earliest possible enrollment period.
- 4) Upon returning and finishing the academic work for the class section, the Incomplete will be removed and a final grade for that section will be given.

REFUND POLICY FOR ACTIVE DUTY

- 1) Refunds will be processed in accordance with the Title IV refund policy when applicable.
- 2) Upon returning, Military Active Duty students or military dependents whose training was interrupted due to military service will receive a waiver equal to the amount of prior tuition unless financial aid funds were used.

EXTERNSHIPS FOR STUDENTS WITH VA FUNDING

All students who receive funding through Veterans Affairs should limit their externship search to sites located in Washington state. Externship sites out of state may not be approved.

85/15 RULE

Veterans Affairs requires that Perry Technical Institute limit student enrollment to 85% veteran enrollment per cohort. In the event that a veteran wishes to enroll in a class that has already reached the 85% cap, he or she may do that but will not be eligible for VA funding. Chapter 35 and 31 students may still enroll even if the 85 percent has been realized.

VA STUDENT'S POINT OF CONTACT

To contact Perry Technical Institute's School Certifying Official, email varep@perrytech.edu, or call 509.895.5761.

general information

DISABILITY ACCOMMODATIONS

It is the policy of Perry Technical Institute (PTI) to comply with all federal and state laws concerning facility access and the education

of qualified individuals with disabilities. PTI will provide reasonable accommodations to students if the school is notified that a student with a disability requires an accommodation in order to pursue or continue training at Perry Technical Institute. An accommodation is not intended to lower or to substantially modify a course of study or its standards or expectations. PTI will work with the student to reasonably accommodate him or her so that he or she can learn in the classroom and lab settings, unless the accommodation causes undue hardship, fundamentally alters the program or course of study or causes undue financial burdens.

Contact the Learning Resources and Exam Center Manager with any questions or requests for accommodation, by email ada@perrytech.edu or by phone 509.453.0374. Information related to an accommodation request will be treated as confidential, except that: a) faculty and department heads may be informed, on a need-to-know basis, regarding necessary restrictions on the work or assignments of the student and any necessary accommodations, b) first aid and safety personnel may be informed, when appropriate, if the disability might require emergency treatment, c) government officials investigating compliance with the Americans with Disabilities Act shall be provided relevant information on request. The Learning Resource and Exam Center Manager may require professional documentation to support a request for certain accommodations.

PROGRAM ADVISORY COMMITTEE

Perry Technical Institute maintains independent Program Advisory Committees for the purpose of structuring and improving programs. The committees meet a minimum of two times per year to provide a meaningful review of the school's program materials, equipment, facilities and student achievement outcomes. Program Advisory Committee members are made up of qualified representatives including employers representing major occupations for which training is provided, representatives from other educational institutions, and graduates with professional experience.

COMPARABLE PROGRAMS

Information about comparable programs, tuition, and length of programs may be obtained by contacting:

Accrediting Commission of Career Schools and Colleges
2101 Wilson Blvd., Suite 302
Arlington, VA 22201
Telephone: 703.247.4212
www.accsc.org

STUDENT RECORDS

Students have the right to inspect and request amendment to their confidential education records. The amendment request process may not be used to appeal a grade, dismissal, disciplinary action or other administrative decision. A student requesting to review his/her education records shall make the request in writing to the Registrar. The Registrar must be presented with proper identification which may include the student's identification card, a state-issued ID card, or a driver's license containing a picture of the student.

Perry Technical Institute maintains a permanent educational record for all currently and formerly enrolled students that consists of all admissions, academic and financial information upon which a student's enrollment is based. These records (physical and electronic) are securely maintained and protected against damage or loss (fire, water, theft, tampering, etc.).

Perry Technical Institute maintains an official transcript for all currently and formerly enrolled students (graduates and terminated or withdrawn students). The transcript includes, at a minimum, the program of study; the date of program entry; the date of graduation, termination or withdrawal; and the clock or credit hours and grades earned. An official transcript is available to students upon request and in accordance with the school's policies.

FAMILY EDUCATION RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. These rights include:

1) The right to inspect and review the student's education records within 45 days after the day Perry Technical Institute receives a request for access. A student should submit to the registrar a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected.

2) The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.

A student who wishes to ask the school to amend a record should submit a letter to the Registrar clearly identifying the part of the record the student wants changed, and specify why it should be changed.

If Perry Technical Institute decides not to amend the record as requested, the student will be notified in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3) The right to provide written consent before Perry Technical Institute discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

Perry Technical Institute discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official includes a person employed by Perry Technical Institute in an administrative, supervisory, academic, research, or support staff; a person serving on the Board of Trustees; a person or company with whom the school has contracted as its agent to provide a service instead of using school employees or officials (such as an attorney, auditor, or collection agent) who is under the direct control of Perry Technical Institute with respect to the use and maintenance of PII from education records. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the school.

4) The right to file a complaint with the U.S. Department of Education concerning alleged failures by Perry Technical Institute to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue SW
Washington, DC 20202

LIABILITY POLICY

Perry Technical Institute is not responsible for loss or damage to student personal property or for personal and/or bodily injury occurring to student while on the school grounds or on field trips.

VACCINATION POLICY

Perry Technical Institute does not require any vaccinations prior to enrollment. In the interest of public health, Perry encourages students, faculty and staff members to voluntarily participate in routine vaccinations as recommended by and according to the guidance of local public health care agencies. In addition, because of potential career related exposure, students enrolled in the Medical Assistant Program can expect to be required to have vaccinations as a condition of their externship placement and future employment in a health care setting.

CLASS/PROGRAM CANCELLATIONS

Perry Technical Institute makes every effort to meet the needs of its students; however, special circumstances may require the school to cancel classes or programs due to the changing needs of industry, insufficient enrollment, or funding. The school reserves the right to make such decisions, as warranted.

agricultural equipment technician

Perry Technical Institute's Agricultural Equipment Technician program offers students a diversified curriculum that guides them through the process of becoming an equipment technician in the agricultural industry.

The objective of the program is to provide students with a broad base of knowledge and skills necessary for employment in the agricultural and construction equipment industries. Students will diagnose, repair, modify, and overhaul a wide variety of equipment including (but not limited to) tractors, combines, cultivators, seeders, and sprayers. Training will include exposure to diesel fuel systems, drive trains, hydraulics, electrical systems, and professional development for the agriculture repair industry.

The goal for students who successfully complete this program is employment as entry-level technicians in the agriculture and construction industries. The Agricultural Equipment Technician program is 12 months in length (four quarters). The student will earn 67 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Agricultural Equipment Technician program is 20:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	AET 110	Intro to Agricultural Equipment	84	4.5
	AET 111	Electrical Systems I	84	4.5
	AET 112	Hydraulics and Implements	96	5.5
	AET 113E	Externship	<u>72</u>	<u>2.0</u>
			336	16.5
Quarter 2	AET 120	Engine Theory & Repair	76	4.5
	AET 121	Fuel Systems	76	4.5
	AET 122	Electrical Systems II	88	5.0
	AET 123E	Externship	<u>96</u>	<u>3.0</u>
			336	17.0
Quarter 3	AET 130	Electronics & Accessories	88	5.0
	AET 131	Power Train Theory I	152	9.0
	AET 132E	Externship	<u>96</u>	<u>3.0</u>
			336	17.0
Quarter 4	AET 140	Professional Development	25	1.5
	AET 141	Power Train Theory II	191	11.0
	AET 142E	Externship	<u>120</u>	<u>4.0</u>
			336	16.5
		Program Totals	1,344	67.0

AGRICULTURAL EQUIPMENT TECHNICIAN COURSE DESCRIPTIONS

AET 110 Intro to Agricultural Equipment

This course covers workplace safety, hazardous materials and environmental regulations, use of hand tools, service information resources, basic concepts, systems, and terms of agricultural equipment technology. Topics include familiarization with equipment systems along with identification and proper use of various hand and power tools, shop equipment and lifting procedures. Students are also introduced to equipment repair orders, parts ordering and repair estimating. Upon completion, students will be able to describe safety and environmental procedures, terms associated with agricultural equipment, document repair orders, order parts and how to use basic tools and shop equipment.

AET 111 Electrical Systems I

This course covers basic electrical theory, wiring diagrams, test equipment, diagnosis, repair, and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students will be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

AET 112 Hydraulics and Implements

During this course, students will be exposed to hydraulic equipment. Students will study friction, lubrication, wear, lubricant maintenance and oil analysis, hydraulic fluid composition, and hydraulic applications. Students will learn proper techniques for operation of implements including settings, calibrations, and related adjustments.

AET 113E Externship

Students will gain field experience under an externship agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required.

AET 120 Engine Theory & Repair

Students will be introduced to gas, CNG (compressed natural gas), and diesel engine application, design, construction, theory, and operating principles. This course will also emphasize diagnosis, disassembly, and assembly of engines.

AET 121 Fuel Systems

This course focuses on fuel system theory, design, maintenance, diagnosis, and repair of mechanical and electronic fuel systems used in agriculture and construction equipment.

AET 122 Electrical Systems II

This course covers electronic theory, wiring diagrams, test equipment, diagnosis, repair and replacement of electronics, lighting, gauges, and control modules. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting. Upon completion, students will be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, modules, and electronic components.

AET 123E Externship

Students will gain field experience under an externship agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required.

AET 130 Electronics & Accessories

This course will build upon the study of electricity by introducing the circuitry, diagnosis, and repair of electronic components. This course also covers theory, diagnosis and repair of in cab climate control systems. Students will also be introduced to GPS and telematics.

AET 131 Power Train Theory I

In this course, students will develop an understanding of agriculture transmissions, clutches, sliding gears, and hydrostatic drives. Students will be exposed to the design, operation, adjustment, and maintenance of power train systems.

AET 132E Externship

Students will gain field experience under an externship agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required.

AET 140 Professional Development

This course helps students develop professionally by focusing on soft skills, career planning, and future growth. Students will create professional resumes, cover letters, and technical training portfolios. Students will have industry-specific training on interview skills and participate in mock interviews. Upon completion, students will be able to successfully interview for positions, develop future training plans, and set goals for career advancement.

AET 141 Power Train Theory II

This course will focus on proper repair techniques and diagnosis of transmissions. Students will demonstrate skills working with CVTs, differentials, torque converters, clutches, amplifiers, planetary drive axels and power take-off units.

AET 142E Externship

Students will gain field experience under an externship agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required. If the student does not obtain an externship, completion of a capstone project is required.

AGRICULTURAL EQUIPMENT TECHNICIAN BOOK AND TOOL LIST

The book and tool list for students in the Agricultural Equipment Technician program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

AGRICULTURAL EQUIPMENT TECHNICIAN EQUIPMENT LIST

Students in the Agricultural Equipment Technician program utilize the following equipment:

- Hydraulic press
- Oxyacetylene torch
- Welding equipment
- Metal cutting equipment
- Fuel and lubrication equipment
- Pressure washers
- Forklift
- Web-based information systems
- Laptop-based diagnostic software

automotive technology

Perry Technical Institute's Automotive Technology program is designed to help students gain the necessary understanding of automotive principles through a variety of experiences including classroom learning, lab activities, working on customer vehicles, writing repair orders, and ordering parts.

The objective of the program is to provide students with a broad base of knowledge and the skills necessary for employment in the automotive industry. The eight recognized areas of automotive repair are addressed in the program: engine repair; automatic transmission/transaxle; manual drive train and axles; suspension and steering; brakes; electrical/electronic systems; heating and air conditioning; engine performance; and light vehicle diesel engines.

The Automotive Technology program is certified by the National Automotive Technicians Education Foundation (NATEF) and the course reflects the national automotive training standards established by the National Institute for Automotive Service Excellence (ASE). Section 609 of the U.S. Clean Air Act of 1990 requires that all mobile service technicians opening the refrigeration circuit in automotive air conditioning systems be certified in refrigerant recovery and recycling procedures. The program prepares students to obtain Section 609 Certification through the Mobile Air Conditioning Society.

The goal for students who successfully complete the course is employment as entry-level technicians in the automotive industry. The Automotive Technology program is 12 months in length (four quarters). The student will earn 76.5 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Automotive Technology program is 16:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	AU 110	Intro to Automotive Technology	108	6.5
	AU 111	Automotive Engine Repair	120	7.0
	AU 112	Basic Automotive Electrical Systems	<u>108</u>	<u>6.5</u>
			336	20.0
Quarter 2	AU 120	Automotive Chassis Systems	200	12.0
	AU 121	Advanced Automotive Electrical Systems	<u>136</u>	<u>8.0</u>
			336	20.0
Quarter 3	AU 131	Automotive Climate Control Systems	95	5.5
	AU 133	Gasoline and Diesel Engine Management Systems	<u>241</u>	<u>14.5</u>
			336	20.0
Quarter 4	AU 140	Automotive Drive Train Systems	215	12.5
	AU 141E	Externship	<u>121</u>	<u>4.0</u>
			336	16.5
		Program Totals	1,344	76.5

AUTOMOTIVE TECHNOLOGY COURSE DESCRIPTIONS

AU 110 Intro to Automotive Technology

This course covers workplace safety, hazardous materials and environmental regulations, use of hand tools, service information resources, basic concepts, systems, and terms of automotive technology. Topics include familiarization with vehicle systems along with identification and proper use of various automotive hand and power tools. Upon completion, students will be able to describe safety and environmental procedures, terms associated with automobiles, and know how to use basic tools and shop equipment.

AU 111 Automotive Engine Repair

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students will be able to perform basic diagnosis, measurement, and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AU 112 Basic Automotive Electrical Systems

This course covers basic electrical theory, wiring diagrams, test equipment, diagnosis, repair, and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students will be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

AU 120 Automotive Chassis Systems

This course covers principles of operation and diagnosis/repair of manually and electronically controlled suspension and steering systems. Also included are the diagnosis and repair of hydraulic brake, drum brake, disc brake, and anti-lock brake systems. Upon completion, students will be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires and balance wheels, and demonstrate skills in hydraulic brake, drum brake, disc brake, and anti-lock brake systems.

AU 121 Advanced Automotive Electrical Systems

This course covers electronic theory, wiring diagrams, test equipment, diagnosis, repair and replacement of electronics, lighting, gauges, horn, wiper, accessories, and body modules. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting. Upon completion, students will be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic components.

AU 131 Automotive Climate Control Systems

This course covers the theory of refrigeration and heating, including manual and electronic climate control systems. Students will understand the importance of recovery and recycling refrigerant as well as adhering to safety and environmental regulations. Upon completion, students will be able to diagnose and safely service climate control systems using appropriate tools, equipment, and service information.

AU 133 Gasoline and Diesel Engine Management Systems

This course covers introduction, theory of operation, service and repair, as well as diagnostic procedures on today's modern engines. Topics include computerized ignition systems, gasoline fuel injection systems, emission control systems, and on-board diagnostics. This training course also covers diesel fuels, modern diesel fuel injection systems, exhaust filtering and after-treatment systems. Related electrical and electronic systems such as module communication, Mode 6, and advanced diagnostic procedures will be taught. Students will also learn to work with laptop-driven scan tools and lab scopes. Upon completion of this course students will be able to service, diagnose and repair components related to gasoline and diesel engine management systems.

AU 140 Automotive Drive Train Systems

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. This course will also cover manual transmissions/transaxles, clutches, drive shafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students will be able to explain operational theory and diagnose and repair automatic and manual drive trains.

AU 141E Externship

Students will learn advanced career planning practices and demonstrate skills and competencies in externship assignments. Students must have a "C+" or better in current coursework, and must complete and submit a regular lab work experience employer evaluation. The instructor may terminate industry work experiences at any time if students do not adhere to these requirements. If the student does not obtain an externship, completion of a capstone project is required.

AUTOMOTIVE TECHNOLOGY BOOK AND TOOL LIST

The book and tool list for students in the Automotive Technology program are intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

AUTOMOTIVE TECHNOLOGY EQUIPMENT LIST

Students in the Automotive Technology program utilize the following software and equipment:

- ShopKey Pro online repair and estimating software
- Identifix
- Procut on car brake lathe
- Automotive fluid service equipment
- Rotary vehicle hoists
- Engine and transmission lifting equipment
- Hunter under car service equipment
- Factory diagnostic tools
- Snap-on diagnostic equipment
- MotoLOGIC information system

business technology & accounting

Perry Technical Institute's Business Technology & Accounting program covers the basic office, computer, accounting, and soft skills needed to be successful in the business world. Students graduate with an Associate of Applied Science degree in Business Technology & Accounting.

Students gain a solid understanding of computers including entry-level keyboarding operations, basic computer maintenance, and desktop publishing. The curriculum reviews basic arithmetic, 10-key skills, and computerized accounting and teaches students to manage their personal finances as well as grasp business concepts, the fundamentals of business finance, and managerial accounting. Students learn the soft skills needed in the office environment and the importance of career planning and how to develop a positive customer service environment.

The program prepares students to take the Microsoft Office Specialist (MOS) certification examination in Microsoft Word, Excel, Access, PowerPoint, and Outlook. In addition, students will receive the knowledge and skills needed to become certified in QuickBooks, Payroll, and Bookkeeping through national associations such as the American Institute of Professional Bookkeepers and the National Association of Certified Public Bookkeepers.

The Business Technology & Accounting program is the launching pad toward entry-level jobs in a variety of business and office positions such as administrative assistant, accounting assistant, accounts payable or receivable specialist, office manager, bookkeeper, and other administrative positions.

The Business Technology & Accounting program is 18 months in length (six quarters). The student will earn 116.0 credit hours which are 2,016 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Business Technology & Accounting program is 24:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	BTA 110	Computer Applications	60	3.5
	BTA 111	Keyboarding I	30	1.5
	BTA 112	Word Processing	60	3.5
	BTA 113	Spreadsheets	60	3.5
	BTA 114	Business English I	60	3.5
	BTA 115	Business Math	<u>66</u>	<u>4.0</u>
			336	19.5
Quarter 2	BTA 120	Database & Integration	88	5.5
	BTA 121	Keyboarding II	30	1.5
	BTA 122	Business Presentation	86	5.0
	BTA 123	Career Planning	30	1.5
	BTA 124	Business Etiquette	42	2.5
	BTA 125	Business English II	<u>60</u>	<u>3.5</u>
			336	19.5
Quarter 3	BTA 130	Fundamentals of Accounting	76	4.5
	BTA 131	Office Administration	54	3.0
	BTA 132	Introduction to Business	60	3.5
	BTA 133	Introduction to Marketing	60	3.5
	BTA 134	Business Communications	51	3.0
	BTA 135	Human Relations	<u>35</u>	<u>2.0</u>
			336	19.5
Quarter 4	BTA 140	Principles of Accounting I	76	4.5
	BTA 141	Entrepreneurship	70	4.0
	BTA 142	Business Ethics	60	3.5
	BTA 143	Economics	65	4.0
	BTA 144	Business Law	<u>65</u>	<u>4.0</u>
			336	20.0
Quarter 5	BTA 210	Principles of Accounting II	91	5.5
	BTA 211	Federal & State Tax Accounting	91	5.5
	BTA 212	Human Resources	71	4.5
	BTA 213	Computerized Accounting Concepts (QuickBooks)	<u>83</u>	<u>5.0</u>
			336	20.5

(cont. on next page)

Quarter 6	BTA 220	Payroll Accounting Concepts	60	3.5
	BTA 221	Accounting Integration (project-based using QuickBooks)	80	5.0
	BTA 222	Customer Service	76	4.5
	BTA 223E	Externship	<u>120</u>	<u>4.0</u>
			336	17.0
		Program Totals	2,016	116.0

BUSINESS TECHNOLOGY & ACCOUNTING COURSE DESCRIPTIONS

BTA 110 Computer Applications

This course introduces the basics of computer hardware and software, networks, the Internet, Outlook, and Publisher. The objective is to allow students to be more comfortable working with personal computers on a daily basis.

BTA 111 Keyboarding I

In this course, students learn beginning typing and 10-key skills. The objectives are for students to learn how to type by touch and how to take a timed keyboarding/10-key test for accuracy and speed.

BTA 112 Word Processing

Students learn how to use Microsoft Word for basic and advanced word processing. The objective of this course is to prepare students to take the MOS certification exam for Word.

BTA 113 Spreadsheets

Students learn Microsoft Excel and how to build business and financial applications for forecasting, budgeting, and basic bookkeeping. The objective of this course is to prepare students to take the MOS certification exam for Excel.

BTA 114 Business English I

A concentrated review of sentence writing, this course emphasizes sentence combining, basic mechanics, and paragraph writing.

BTA 115 Business Math

Students will review the basic operations of arithmetic, understand and manage their personal finances, as well as grasp the fundamentals of business finances. This course will prepare students to be smart shoppers, informed taxpayers, and valued employees. Basic math skills will be covered in a step-by-step manner, building student confidence along the way.

BTA 120 Database & Integration

Students learn how to create and use databases with Microsoft Access. The objective of this course is to prepare students to take the MOS certification exam for Access.

BTA 121 Keyboarding II

In this course, students learn how to improve their accuracy and typing/10-key speed. Students also learn formatting for personal and business letters, memoranda, simple tabulation techniques, proofreading, and editing.

BTA 122 Business Presentation

This course provides instruction in delivering speeches and developing presentation materials. Students will create a variety of charts, graphs, and interactive presentations with the primary use of PowerPoint. Students will be encouraged to complete the MOS certification in PowerPoint.

BTA 123 Career Planning

This course is designed to teach students how to write a professional cover letter and resume, participate in career networking, search for positions, apply for positions, and negotiate a position in an administrative field.

BTA 124 Business Etiquette

This course focuses on the fundamentals of etiquette as they relate to business and business relationships inside and outside the office.

BTA 125 Business English II

This course emphasizes basic punctuation and grammar rules and covers sentence structure. The focus is on writing sentences which demonstrate a grasp of basic syntax and usage, and writing sound paragraphs which express a main idea clearly and develop it fully with a minimum of errors in sentence structure, punctuation, and spelling.

BTA 130 Fundamentals of Accounting

In an introduction to accounting, students will learn accounting concepts and procedures to include debits and credits, the general journal, general ledger, accounting cycle, banking and cash handling procedures, and payroll entries. The objective of this course is to give students a solid foundation in accounting.

BTA 131 Office Administration

This course is designed to prepare students to manage an office and provides office-related situations including decision-making and critical thinking activities.

BTA 132 Introduction to Business

Students will learn and apply the basic concepts of business. Topics include the business environment, business formation, financing a business, management motivation and leadership, and operations management.

BTA 133 Introduction to Marketing

Students will learn and apply the basic concepts of marketing. Subjects included are an overview of marketing, analyzing market opportunities, product and distribution decisions, promotion and communication strategies, and pricing decisions.

BTA 134 Business Communications

Students learn various forms of written business communications and effective verbal communications including emails, memos, letters, using real life scenarios and case studies, and working effectively in teams.

BTA 135 Human Relations

Human Relations will help students develop the personal and professional skills needed to be successful in business. Topics include confidence building, self-concept and self-esteem, building positive attitudes, motivation, effective leadership, conflict management, and balancing professional and personal priorities individually and in a team environment.

BTA 140 Principles of Accounting I

Students will expand their knowledge of accounting concepts and procedures by learning how to account for sales and cash receipts, purchases and cash payments, the worksheet for a merchandise company, bad debts, notes, merchandise inventory and accounting for property, plant, and equipment. The objective of this course is to familiarize students with standard accounting procedures that are found in most companies.

BTA 141 Entrepreneurship

This course focuses on developing and writing a complete business plan. Students will develop a business idea and learn how to bring their idea to market. Students will learn how companies finance, choose employees, purchase assets, develop and define a market, set a pricing structure, create a marketing plan, and then present the idea to industry experts for review.

BTA 142 Business Ethics

This course examines the ethical challenges facing individuals and businesses in modern society. The course utilizes case studies of professionals working in various areas of business and provides guest speakers with real-world experiences.

BTA 143 Economics

This course is designed to promote economic literacy and help students appreciate how economics affects their everyday lives.

BTA 144 Business Law

Business Law will focus on legal issues in the workplace and the legal system as it pertains to business transactions. Topics include contract formation and performance, real property, product liability, and employer/employee relations.

BTA 210 Principles of Accounting II

Students continue to build their accounting skills by learning how to account for partnership equity, corporation stock, corporate dividends, treasury stocks and retained earnings, bonds, the statement of cash flows, financial statement analysis, and cost accounting. The objective of this course is to help students develop the analytical and problem-solving skills necessary in accounting and bookkeeping positions.

BTA 211 Federal & State Tax Accounting

This course will introduce students to the fundamentals of tax accounting and state tax requirements. Coursework will focus on individual returns, income and exclusions, business income and expenses, deductions and credits, capital gains and losses, corporate tax, and tax administration and planning.

BTA 212 Human Resources

This course will introduce students to all aspects of human resource management. Students will learn the most up-to-date practices in human resource planning. Topics will include addressing legal requirements, employee compensation and training, employee safety and health, and assessing performance.

BTA 213 Computerized Accounting Concepts

This course will provide a hands-on approach to learning QuickBooks that incorporates a thorough understanding of the software while applying knowledge of the accounting cycle.

BTA 220 Payroll Accounting Concepts

This course will provide students with firsthand experience in calculating payroll, completing payroll taxes, and preparing payroll records and reports. Students will learn through application with realistic, hands-on practice exercises.

BTA 221 Accounting Integration

This is a project-based course that will provide a hands-on simulation project. The project is designed to incorporate the accounting and QuickBooks knowledge gained in previous courses, through realistic practice.

BTA 222 Customer Service

This course emphasizes how to provide excellent customer service. Students study and apply effective communication techniques, problem resolution skills, and how to handle difficult situations.

BTA 223E Externship

Students will learn advanced career planning practices and demonstrate skills and competencies in externship assignments by electing an externship option pending instructor approval. Students must have a "C+" or better in current coursework, must not be under any type of probationary contract, and must complete and submit a regular lab work experience employer evaluation. The instructor may terminate industry work experiences at any time if students do not adhere to these requirements. If the student does not obtain an externship, completion of a capstone project is required.

BUSINESS TECHNOLOGY & ACCOUNTING BOOK AND TOOL LIST

The book and tool list for students in the Business Technology & Accounting program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

BUSINESS TECHNOLOGY & ACCOUNTING EQUIPMENT LIST

Students in the Business Technology & Accounting program utilize the following equipment:

- Computers
- Copy machines
- Fax machines
- Scanners
- 10-key calculators
- Telephone

construction

Perry Technical Institute's Construction program offers students a diversified curriculum that guides them through the process of becoming construction workers

The objective of the program is to provide students with a broad base of knowledge and skills necessary for employment in the construction industry. Students will learn about layouts, blueprints, framing, tool usage, safety, concrete, and finishing. Training will include exposure to drywall, taping, power saws and drills, site surveying, scaffolding, and professional development for the construction industry.

The goal for students who successfully complete this program is employment as entry-level construction workers. The Construction program is 12 months in length (four quarters). The student will earn 72 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Construction program is 20:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	CST 110	Introduction to Construction	104	6.0
	CST 111	Construction Blueprint Reading	104	6.0
	CST 112	Construction Fundamentals I	<u>128</u>	<u>7.5</u>
			336	19.5
Quarter 2	CST 120	Construction Concrete	168	9.5
	CST 121	Construction Fundamentals II	<u>168</u>	<u>9.5</u>
			336	19.0
Quarter 3	CST 130	Exterior Finishing	120	7.0
	CST 131	Construction Fundamental III	120	7.0
	CST 132E	Externship	<u>96</u>	<u>3.0</u>
			336	17.0
Quarter 4	CST 140	Interior Finishing	191	11.0
	CST 141	Professional Development	25	1.5
	CST 142E	Externship	<u>120</u>	<u>4.0</u>
			336	16.5
		Program Totals	1,344	72.0

CONSTRUCTION COURSE DESCRIPTIONS

CST 110 Introduction to Construction

This course covers workplace safety, hazardous materials and environmental regulations, use of hand tools, service information resources, basic concepts, systems, and terms of the construction industry. Topics include building process, materials, building systems, and construction components.

CST 111 Construction Blueprint Reading

This course provides an introduction to reading, interpreting, and applying construction blueprints. Topics will include symbols, terminology, floor plans, elevation, and mechanical plans.

CST 112 Construction Fundamentals I

This course introduces students to framing, estimating, material selection, basic construction math, tool usage, layout, floors, walls, and ceilings. Students will receive exposure to proper power tool handling (a foundation that will continue throughout the program). In addition, students will study compaction and backing.

CST 120 Construction Concrete

Students will explore forming methods, footings, foundation walls, slabs, stairs, and the handling and curing of concrete. Students will study placing procedures and mix designs.

CST 121 Construction Fundamentals II

This course covers roof framing methods for residential construction. Students will be exposed to building codes, rafter nomenclature, ceiling joists, and collar ties. Students will also learn about stacking of residential roofs and rolling of trusses.

CST 130 Exterior Finishing

This course includes the installation and finishing of wall coverings, cornices, and exterior trim. Students will install windows, doors, waterproofing, and utilize tools specifically designed for exterior finishing. Students will practice using ladders and scaffolds.

CST 131 Construction Fundamentals III

In this course, students will explore siding installation as well as state-of-the-art cutting. In addition, students will explore all facets of developing a building envelope. Students will be exposed to advanced construction techniques.

CST 132E Externship

Students will gain field experience under an externship agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required.

CST 140 Interior Finishing

This course covers drywall installation methods, including tapes, corner beads, joint compounds, textures, and patching. Students will also complete material trim installation and estimate trim quantities and costs. Students will be exposed to base, casing, crown, and wainscot panel molding as well as interior door and window surrounds. Cabinetry installation will also be taught.

CST 141 Professional Development

This course helps students develop professionally by focusing on soft skills, career planning, and future growth. Students will learn proper communication skills for the construction industry. Topics will include verbal communication with co-workers and written communication such as filling out a timecard or a work order. Upon completion, students will be able to successfully interview for positions, develop future training plans, and set goals for career advancement.

CST 142E Externship

Students will gain field experience under an externship agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required. If the student does not obtain an externship, completion of a capstone project is required.

CONSTRUCTION BOOK AND TOOL LIST

The book and tool list for students in the Construction program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

CONSTRUCTION EQUIPMENT LIST

Students in the Construction program utilize the following equipment in addition to a variety of hand and power tools:

- Forklift
- Scaffolding
- Manlift
- Backhoe
- Table saw
- Mini excavator
- Compactor
- Planer
- Chop saw

electrical technology

Perry Technical Institute's Electrical Technology program offers students a diversified curriculum that guides them through the process of becoming electricians.

Students are introduced to the generation and distribution of AC/DC electricity, wiring methods for residential, commercial and industrial motor controls, as well as utilizing green technologies such as solar. During classroom, lab and fieldwork experiences, students gain valuable theory while incorporating current NEC codes and WAC/RCW rules, laws, and procedures with hands-on application.

The Washington State Department of Labor & Industries may recognize up to two years of training received from Perry's Electrical Technology program toward the (01) journey level certification. Graduates must accumulate additional hours of industrial/commercial electrical work before applying to take their (01) journey level examination with the State of Washington.

The goal for students who successfully complete this program is entry-level employment as third-year electrical trainees. The two largest groups of potential employers are electrical construction contractors and electrical departments in manufacturing industries.

The Electrical Technology program is 24 months in length (eight quarters). The student will earn 172.5 credit hours which are 3,000 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The classroom student to instructor ratio for the Electrical Technology program is 22:1. The student to (01) journey level electrician ratio when performing fieldwork for the school is 4:1. When performing fieldwork for a company other than Perry Technical Institute, the student to (01) journey level electrician ratio is 1:1.

Addendum: pg. 6

PROGRAM OUTLINE			Clock Hours	Credit Hours
Quarter 1	EL 110	Electrical Safety	36	2.5
	EL 111	DC Fundamentals I	90	6.0
	EL 112	National Electric Code/WAC Code	109	7.5
	EL 113	Introduction to Voltage Systems	30	2.0
	EL 114L	Lab & Shop Projects	<u>110</u>	<u>5.5</u>
		375	23.5	
Quarter 2	EL 120	DC Fundamentals II	75	5.0
	EL 121	AC Theory Single-Phase	135	9.5
	EL 122	National Electric Code	96	6.5
	EL 123	Safety Meetings	11	0.5
	EL 124L	Lab & Shop Projects	<u>58</u>	<u>3.0</u>
		375	24.5	
Quarter 3	EL 130	AC Motors	30	2.0
	EL 131	NEC Articles 430 & 440	50	3.5
	EL 132	Motor Controls	124	8.5
	EL 133	Safety Meetings	11	0.5
	EL 134L	Lab & Shop Projects	<u>160</u>	<u>8.0</u>
		375	22.5	
Quarter 4	EL 140	Introduction to Digital	55	3.5
	EL 141	Programmable Logic Controllers	129	9.0
	EL 142	NEC Review	14	0.5
	EL 143	Safety Meetings	11	0.5
	EL 144L	Lab & Shop Projects	<u>166</u>	<u>8.0</u>
		375	21.5	
Quarter 5	EL 210	Blueprint Reading	50	3.5
	EL 211	NEC & Load Sizing Calculations	144	10.0
	EL 212	NEC 690 & WAC	30	2.0
	EL 213	Variable-Frequency Drives	50	3.5
	EL 214	Safety Meetings	11	0.5
	EL 215L	Lab & Shop Projects	<u>90</u>	<u>4.5</u>
		375	24.0	

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Quarter 6	EL 221	Three-Phase Systems & Distribution	134	9.0
	EL 223	NEC Article 450/Utility Power	50	3.5
	EL 224	Conduit Bending & Wiring Practices	45	3.0
	EL 225	Safety Meetings	11	0.5
	EL 226L	Lab & Shop Projects	<u>135</u>	<u>7.0</u>
			375	23.0
Quarter 7	EL 230	Solid State Electronic Fundamentals	105	7.0
	EL 231	Career Planning	20	1.0
	EL 232	Safety Meetings	11	0.5
	EL 233L	Lab & Shop Projects	115	6.0
	EL 234L	Electrical Field Experience	<u>124</u>	<u>6.5</u>
			375	21.0
Quarter 8	EL 240E	Externship	375	12.5
		Program Totals	3,000	172.5

ELECTRICAL TECHNOLOGY COURSE DESCRIPTIONS

EL 110 Electrical Safety

Safety requirements for campus, classroom, lab, and shop environments. Proper use and care of personal and school property, tools, equipment, and procedures.

The Electrical Department holds weekly safety meetings. The meeting has a safety curriculum that is covered with the students. Safety demonstrations are performed to show the correct way to use tools, ladders, scaffoldings, and other equipment needed in the electrical trade. A first aid and CPR certificate is awarded after successful completion of the class.

EL 111 DC Fundamentals I

Electrical safety, atomic structure, basic electrical definitions, electron flow theory through electrical circuits, conventional current flow, and series, parallel and series-parallel combination circuits solving using applied electrical mathematics used for theory utilizing Ohm's Law and Watt's Law; problem solving and transposing, and electronic units of conversion of measure. Application for mathematics will continue throughout the program.

EL 112 National Electric Code/WAC Code

Minimum standards for safe installation and maintenance of electrical systems utilizing the L&I adopted edition of National Fire Protection Association (NFPA Volume 70) National Electrical Code and Washington Administrative Code (WAC 296 46B) Rules and Regulations that supersede the NEC minimum standards that are enforced and practiced in the industry, and RCW 19.28 laws governing competent electrical installers.

EL 113 Introduction to Voltage Systems

Names, schematics, grounding, configurations, and hook-ups of single-phase transformers and three-phase transformers used in the industry.

EL 114L Lab & Shop Projects

Introduction to proper drawings and schematics utilizing conductors, cables, switches, receptacles, and lighting fixtures. Safe and practical application of classroom instruction on actual equipment. Proper use of personal protective equipment and tools to install and troubleshoot conductors, cables, switches, receptacles, and lighting fixture wiring.

EL 120 DC Fundamentals II

Differences and similarities between DC motors and generators; calculating the counter EMF generated in the armature of the motor; performance characteristics of DC shunt, series and compound motors; assigning correct polarity to interpoles installed in DC motors; drawing the process of controlling speed of various DC motors; and drawing the process of reversing the rotation of any DC motor.

EL 121 AC Theory Single-Phase

RL, RC and RLC series circuits and the effects of the inductive and capacitive reactance. Impedance and power factor.

EL 122 National Electric Code

Minimum standards of outdoor branch circuits and feeders, services, grounding and bonding, hazardous locations and pools. The NEC articles covered in this section are: 225, 230, 250, 500 and 680.

EL 123 Safety Meetings

Each week there will be a safety meeting for the Electrical Department. The meeting has a safety curriculum and a safety video that are covered with the students. Accident reports and unsafe condition reports are reviewed. Safety demonstrations are performed to show the correct way to use tools, ladders, scaffoldings, and other equipment needed in the electrical trade.

EL 124L Lab & Shop Projects

Using electrical components to assemble circuits and verify electrical quantities determined in classroom calculations. Students will use a breadboard, various semi-conductor components, and a digital multi-meter.

EL 130 AC Motors

Single-phase motor hook-ups; reversing externally reversible motors; four major parts of a motor; run winding/start windings; using an OHM meter; and properly connect to line voltages. Three-phase wye connected; high and low voltage connections; delta high and low voltage connections; identify, drawing and numbering 9 and 12 lead wye and delta motors; and reversing three-phase motors.

EL 131 National Electrical Code Articles 430 & 440

NEC Article 430 – Motor feeder short-circuit and ground fault protection; motor disconnecting means; and motor branch circuit, short-circuit, and ground-fault protection.

NEC Article 440 – Code section applying to sizing the conductor and protection to central electric space heating equipment; sizing the circuit conductors and protection for a motor used as a blower; and the differences in the rules between motors and air conditioning when installing a disconnecting means.

EL 132 Motor Controls

The principles of two- and three-wire controls and the use of relays, mag-starters, timers, sensors, along with the symbols and ladder diagrams needed to make a successful control installation. Photoelectric switches, inductive and capacitive proximity sensors and various other sensors will be utilized in discussion and lab exercises.

EL 133 Safety Meetings

Each week there will be a safety meeting for the Electrical Department. The meeting has a safety curriculum and a safety video that are covered with the students. Accident reports and unsafe condition reports are reviewed. Safety demonstrations are performed to show the correct way to use tools, ladders, scaffoldings, and other equipment needed in the electrical trade.

EL 134L Lab & Shop Projects

Using ladder diagrams designed in class, students install the wiring to motor control lab stations for various applications and processes. Students will also do troubleshooting after the instructor bugs the station.

EL 140 Introduction to Digital

Examination of several different numbering systems, including but not limited to logic gates, conversions, and combination logic.

EL 141 Programmable Logic Controllers

The programmable logic controller, focusing on Allen-Bradley SLC500 series, various small fixed I/O type PLCs. The software covered is RsLogix500, and RsLinx. Programming concepts range from programming of discrete I/Os to the use of analog I/O. Troubleshooting and how to construct programs with all safety concerns.

EL 142 NEC Review

Code evaluation of previously covered code articles.

EL 143 Safety Meetings

Each week there will be a safety meeting for the Electrical Department. The meeting has a safety curriculum and a safety video that are covered with the students. Accident reports and unsafe condition reports are reviewed. Safety demonstrations are performed to show the correct way to use tools, ladders, scaffoldings, and other equipment needed in the electrical trade.

EL 144L Lab & Shop Projects

Students will develop, use, and create programs and use logical diagrams to control the desired process by analyzing inputs and updating outputs and by monitoring devices and troubleshooting the written program.

EL 210 Blueprint Reading

Terms, symbols, layout, organization, and structure of plans that are used for residential, commercial, and industrial buildings. Understand and interpret prints for identification of code violations, conflicts of space, and safety issues.

EL 211 NEC & Load Sizing Calculations

Covering code Articles 220 and 240, calculating the ampacity of service conductors, feeder conductors, branch circuit conductor, and the ampacity rating of the panels and load centers they supply including the overcurrent devices used for protection.

EL 212 NEC 690 & WAC

NEC Article 690 – Solar photovoltaic systems including the array circuit, inverter, and controller. Washington Administrative Code (WAC) and Revised Code of Washington (RCW) requirements for the electrical industry including, but not limited to: electrical industry scopes of work, licensing qualifications, exams, fees, penalties, types of certifications, and continuing education requirements.

EL 213 Variable-Frequency Drives

Fundamentals and functions of both DC motor drives and AC variable-frequency drives.

EL 214 Safety Meetings

Each week there will be a safety meeting for the Electrical Department. The meeting has a safety curriculum and a safety video that are covered with the students. Accident reports and unsafe condition reports are reviewed. Safety demonstrations are performed to show the correct way to use tools, ladders, scaffoldings, and other equipment needed in the electrical trade.

EL 215L Lab & Shop Projects

Variable frequency drives used with motors and motor controllers to change the speed of AC motors through the use of various analog components. Construction of a stand-alone photovoltaic system.

EL 221 Three-Phase Systems & Distribution

Students will demonstrate an understanding of the relationship and characteristics of current, voltage, power, power factor, and power quality in three-phase configurations. Students will examine different methods of power distribution through the use of transformers and their connections. This course will explore practical applications of transformers and their effect on power quality. Students will troubleshoot the symptoms of poor power quality and harmonics with power quality analyzers

EL 223 NEC Article 450/Utility Power

NEC Article 450 – Code requirements for sizing of transformers, conductors, and overcurrent protection.

EL 224 Conduit Bending & Wiring Practices

Introduction to the use of hand, hydraulic, and PVC conduit benders. Lab exercises will include the following; predetermined 90-degree stubs, predetermined offsets, box offsets, back-to-back 90-degree stubs, three-bend saddles, four-bend saddles, and kicks.

EL 225 Safety Meetings

Each week there will be a safety meeting for the Electrical Department. The meeting has a safety curriculum and a safety video that are covered with the students. Accident reports and unsafe condition reports are reviewed. Safety demonstrations are performed to show the correct way to use tools, ladders, scaffoldings, and other equipment needed in the electrical trade.

EL 226L Lab & Shop Projects

The student will practice applied wiring techniques in various hands-on exercises and labs including, but not limited to: conduit bending, switch connections, single- and three-phase power factor correction, transformer connections, non-metallic cable, metallic cable, wire pulling, panel, box and device installation, and connections.

EL 230 Solid State Electronic Fundamentals

Students will build a foundation of solid state electronics through the theory and operation of PN junctions and how they react to voltages in diodes and transistors. Construction of power supplies using half wave and bridge rectifiers and filters, and how to calculate average DC output. Printed circuit boards, soldering, and troubleshooting electronics. Basic C++ programming and operation of microcontrollers with analog and digital inputs/outputs.

EL 231 Career Planning

Students will prepare for an effective career search by learning to create a resume, practicing interviewing skills, and reviewing the job application process.

EL 232 Safety Meetings

Each week there will be a safety meeting for the Electrical Department. The meeting has a safety curriculum and a safety video that are covered with the students. Accident reports and unsafe condition reports are reviewed. Safety demonstrations are performed to show the correct way to use tools, ladders, scaffoldings, and other equipment needed in the electrical trade.

EL 233L Lab & Shop Projects

Lab time will give students the opportunity to apply the use of training equipment including oscilloscopes, signal generators, and DC power supplies, used with solid state components to determine how and why they operate. Construction and repair of circuit boards through the practice of soldering.

EL 234L Electrical Field Experience

Students will take part in on-the-job training projects doing hands-on electrical wiring installations in residential and commercial buildings. Students are required to have 100% supervision by a (01) journey level electrician employed by Perry Technical Institute while performing these electrical installations with a ratio of not more than four students to one (01) journey level electrician. All work will comply with the NEC, WAC and RCWs and shall be inspected by the Department of Labor & Industries. In addition to holding a current (01) journey level electrician certificate, the (01) journey level electricians must also have training in instruction and meet the minimum requirements of a classroom instructor. Journey level electricians shall not engage in any of the electrical installations.

EL 240E Externship

On-the-job training projects doing hands-on electrical wiring installations in residential and commercial buildings. All trainee electrical installations are supervised by an (01) journey level electrician and inspected by the Department of Labor & Industries. Students who have a job offer as an electrician may leave the program and work in the field under a training extern agreement with Perry Technical Institute, the employer, and the student. Completion of an externship packet is required including a WAC and RCW compliance form to ensure students are supervised 100% of the time by an (01) journey level electrician at a ratio of no more than one student to one (01) journey level electrician. If the student does not obtain an externship, completion of an electrical capstone project is required.

ELECTRICAL TECHNOLOGY BOOK AND TOOL LIST

The book and tool list for students in the Electrical Technology program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 15.

ELECTRICAL TECHNOLOGY EQUIPMENT LIST

Students in the Electrical Technology program utilize the following equipment:

- Computers
- Electrical hand tools
- Motor control labs
- Single- and three-phase motors
- PLC simulators
- PLC labs
- Transformer connection labs
- Power factor correction labs
- Conduit bending equipment
- Oscilloscopes and related electronic equipment

heating, ventilation, air conditioning & refrigeration technology

Perry Technical Institute's Heating, Ventilation, Air Conditioning & Refrigeration Technology program covers all aspects of the field, from refrigeration fundamentals to direct digital control and energy management systems. Students learn the curriculum through classroom and extensive hands-on training in lab-related instruction.

Perry Technical Institute's HVAC/R program is approved by the Washington State Department of Labor & Industries as a 06A HVAC/R Specialty Electrical Training program. Graduates may be credited with up to one year (or 2,000 hours) towards the two years (or 4,000 hours) required by the State of Washington to be eligible to take the certification exam for the 06A HVAC/R Specialty Electrical License.

The program prepares students to gain industry certifications in several areas, giving them competitive advantages in the employment market. Some of the technician certifications offered include Universal R-410A Safety, OSHA Safety, EPA 608 Refrigerant, EPA 609 Refrigerant, and Green Mechanical Systems.

Classroom and shop training prepares students to enter the HVAC/R industry as qualified entry-level technicians.

The HVAC/R Technology program is 24 months in length (eight quarters). The student may earn 174.5 credit hours which are 2,872 clock hours. Labor & Industries does not separate break times and credits 2,000 hours towards classroom participation. Tuition is payable on a quarterly basis. There are four quarters in an academic year. Quarter three and four course offerings may be offered in a sequence other than listed to accommodate seasonal working conditions.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Heating, Ventilation, Air Conditioning & Refrigeration Technology program is 22:1.

PROGRAM OUTLINE

Addendum: pg. 10

			Clock Hours	Credit Hours
Quarter 1	RE 110	Refrigeration Fundamentals	259	18.0
	RE 111L	Lab & Shop Projects	<u>100</u>	<u>5.0</u>
			359	23.0
Quarter 2	RE 120	Refrigeration & Electric Forced Air Heating	219	15.5
	RE 121L	Lab & Shop Projects	<u>140</u>	<u>7.0</u>
			359	22.5
Quarter 3	RE 130	Residential & Light Commercial HVAC I	229	16.0
	RE 131L	Lab & Shop Projects	<u>130</u>	<u>6.5</u>
			359	22.5
Quarter 4	RE 140	Residential & Light Commercial HVAC II	209	14.5
	RE 141L	Lab & Shop Projects	<u>150</u>	<u>7.5</u>
			359	22.0
Quarter 5	RE 210	Commercial Refrigeration I	218	15.0
	RE 211L	Lab & Shop Projects	<u>141</u>	<u>7.0</u>
			359	22.0
Quarter 6	RE 220	Commercial Refrigeration II	228	16.0
	RE 221L	Lab & Shop Projects	<u>131</u>	<u>6.5</u>
			359	22.5
Quarter 7	RE 230	Industrial Heating & Cooling Systems I	261	18.0
	RE 231L	Lab & Shop Projects	<u>98</u>	<u>4.5</u>
			359	22.5
Quarter 8	RE 240	Industrial Heating & Cooling Systems II	131	9.0
	RE 241L	Lab & Shop Projects	98	4.5
	RE 242E	Externship	<u>130</u>	<u>4.0</u>
			359	17.5
Program Totals			2,872	174.5

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION TECHNOLOGY COURSE DESCRIPTIONS

First Aid

First aid and CPR training is contracted with an outside agency. Current certification is required.

RE 110 Refrigeration Fundamentals

Tools, procedures, and equipment are covered/demonstrated in both the classroom and lab environment. Mathematics is used for practical electrical theory and application of series and parallel electrical circuits as found in the HVAC/R trade. Emphasis is placed on the understanding and application of the four main components of a mechanical compression refrigeration system, each of their functions within the system including the pressures and temperatures associated with each component.

RE 111L Lab & Shop Projects

Students develop the necessary skills for the application and use of electrical and HVAC/R tools and equipment. Students learn the required skills and techniques for the proper joining of copper to copper and copper to steel tubing by use of oxyacetylene torches. Students begin practical application of refrigeration operation and troubleshooting on residential refrigerators and freezers.

RE 120 Refrigeration & Electric Forced Air Heating

Studies expand on the four main components of the refrigeration system. This section of the program also introduces central forced air electric heating systems. Students continue reading and using schematic and ladder diagrams and learn to develop their own electrical diagrams to meet specific operations.

RE 121L Lab & Shop Projects

Lab time includes an emphasis on electrical measurements for troubleshooting and hands-on wiring of equipment. Students complete the wiring and operation of relays, capacitors, single and multi-speed single-phase fractional horsepower motors, heaters, low-voltage heat/cool thermostats, compressors, and fan motors. Time is used for wiring, troubleshooting, and maintaining controls as well as actual operation and troubleshooting of electric furnaces and their controls.

RE 130 Residential & Light Commercial HVAC I

Students review shop safety procedures and are introduced to fall protection and ladder safety. Safe handling of refrigerants and proper HVAC system charging are covered, including refrigerant recovery and applications of R-22, HFC refrigerants R-410A, and R-422B. Students learn the fundamentals of humidifiers and air filtration, including all types of disposable air filters to state-of-the-art electronic air cleaners. Students learn to interpret both ladder and pictorial wiring diagrams. All types of single-phase motors are discussed. The curriculum covers both packaged and split systems of residential and light commercial HVAC equipment.

RE 131L Lab & Shop Projects

This section emphasizes the application of control strategies used to wire and operate HVAC equipment. Students develop all types of wiring diagrams utilizing actual HVAC units. Students are exposed to systems such as heat pumps, oil, gas, and electric forced air HVAC systems. Typical lab projects include tasks such as soldering, steel pipe threading, wiring, and proper refrigerant charging of A/C units. Students are introduced to basic sheet metal fabrication concepts

including several sheet metal projects using not only sheet metal hand tools, but the heavier shop fabrication equipment associated with the fabrication of HVAC duct systems.

RE 140 Residential & Light Commercial HVAC II

In this section, students study heating systems that include fossil fuel units such as natural, LP gas units, oil heating systems, electric heating, and heat pump systems. The section covers the combustion and venting process as it relates to fossil fuel heating systems. The duct design process is introduced. Students learn to apply control strategies covered in the classroom to wire and operate several types of HVAC equipment. Residential load calculations are introduced. Students learn the basics of air distribution and balancing residential and light commercial HVAC air delivery systems. The curriculum introduces several types of air side components such as grills, registers, and diffusers as well as equipment typically used for air balancing.

RE 141L Lab & Shop Projects

This course helps students apply the knowledge learned in the classroom to operational HVAC equipment. All laboratory/shop tasks will be performed on functional oil furnaces. The scope of tasks involves electrical wiring, mechanical operation, and combustion analysis of oil heating systems. The study of oil heating systems focuses on high pressure, gun-type oil burners. The primary control systems include both stack and cadmium cell types. Students complete several lab projects including wiring and combustion analysis on natural gas furnaces using both chemical and digital analysis tools.

RE 210 Commercial Refrigeration I

Students begin studying and troubleshooting commercial systems and components. The course covers electrical theory, control circuits, and wiring schematics. RCW 19.28, WAC 29646A, WAC 296401B, and articles from the NEC are also covered.

RE 211L Lab & Shop Projects

This course provides hands-on evaluation and repair of a wide variety of live refrigeration equipment. The curriculum tests the student's ability to set, adjust, and evaluate a wide variety of refrigerant and electrical controls under different operating conditions. Installation, setting, and proper wiring methods as specified by NEC are covered for a variety of control applications.

RE 220 Commercial Refrigeration II

The curriculum covers advanced commercial systems and components, troubleshooting commercial systems, electrical theory, control circuits, and wiring schematics. RCW 19.28, WAC 296-401B, and articles from the NEC are also covered.

RE 221L Lab & Shop Projects

This course provides hands-on evaluation and repair of a wide variety of live refrigeration equipment. The curriculum tests the student's ability to set, adjust, and evaluate a variety of refrigerant and electrical controls under different operating conditions. Installation, setting, and proper wiring methods as specified by NEC are covered for a number of control applications.

RE 230 Industrial Heating & Cooling Systems I

Students are introduced to industrial heating and cooling systems and components, troubleshooting industrial systems, electrical theory, control circuits, wiring schematics, and piping diagrams. This includes NEC compliance, using chapters 2, 3, and 9.

RE 231L Lab & Shop Projects

Lab time gives students the opportunity to apply the skills they have learned. Training equipment, lab projects, computer simulators, and on-site service work allow the student to receive hands-on training to reinforce classroom instruction.

RE 240 Industrial Heating & Cooling Systems II

Students are introduced to advanced heating/cooling systems and related electrical and mechanical components. Troubleshooting, electrical theory, control circuits, wiring, and piping diagrams are emphasized. This includes NEC compliance, using Chapters 2, 3, and 9.

RE 241L Lab & Shop Projects

This course will provide students with the opportunity to evaluate and troubleshoot a wide variety of equipment. Lab time will allow students to apply the skills they have learned. Training equipment, lab projects, computer simulators, and on-site service work will provide the student with hands-on training to help reinforce classroom teaching.

RE 242E Externship

Qualifying students have the option of obtaining practical experience in an HVAC/R environment. All trainee HVAC/R installations are supervised by an HVAC/R 06 journeyman. Students who have a job offer as an HVAC/R technician may leave the program and work in the field under a training extern agreement with Perry Technical Institute, the employer, and the student. Completion of an externship packet is required. Externships must be approved by the Department Head. If the student does not obtain an externship, completion of the HVAC/R capstone project is required.

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION TECHNOLOGY BOOK AND TOOL LIST

The book and tool list for students in the Heating, Ventilation, Air Conditioning & Refrigeration Technology program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 15.

HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION TECHNOLOGY EQUIPMENT LIST

Students in the HVAC/R program utilize the following equipment:

- Computers
- Digital multi-meter
- Digital clamp-on ammeter
- Digital temperature meter
- Elenco oscilloscopes
- Ultrasonic refrigerant leak detection
- Thermistor vacuum gauge
- Digital duct leakage monitor
- Digital refrigerant scale
- Oxyacetylene torch set
- Vacuum pump
- Refrigerant recovery equipment
- Refrigerant gage manifold
- Arc welder
- Wire feed welder

information technology & communication systems

Perry Technical Institute’s Information Technology & Communication Systems program teaches the theories and skills needed to work in all areas of communications technology – electronics theory, personal computers, wireless communications, telephone systems, transmission equipment, alarm systems, and data networking and administration.

The program is divided into four six-month sections of curriculum and combines classroom and lab projects to provide students with the proper balance of theory and hands-on experience.

Students prepare to earn numerous industry certifications including CompTIA, Cisco, and FCC. The program is approved by the State of Washington as a two-year Limited Energy (06) Specialty Electrical training program. Graduates may be credited with up to one year towards the two years required to be eligible to take the certification exam for the Limited Energy (06) Specialty Electrical License Throughout the program, students prepare themselves for the workforce. Resume writing, interview skills, and documentation of their experience at Perry Technical Institute in a portfolio enable the student to conduct an effective job search.

The goal of Perry Technical Institute’s Information Technology & Communication Systems program is to provide graduates with the wide variety of skills necessary to obtain entry-level employment and achieve success in their careers.

The Information Technology & Communication Systems program is 24 months in length (eight quarters). The student will earn 160.5 credit hours which are 2,688 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Information Technology & Communication Systems program is 24:1.

PROGRAM OUTLINE

Addendum: pg. 13

			Clock Hours	Credit Hours
Quarter 1	ITC 110	Applied Mathematics for Electronics	110	7.0
	ITC 111	Electronics: Fundamentals I	<u>226</u>	<u>14.5</u>
			336	21.5
Quarter 2	ITC 120	Electronics: Fundamentals II	156	9.5
	ITC 121	Wireless Technology	<u>180</u>	<u>11.5</u>
			336	21.0
Quarter 3	ITC 133	Computer Hardware Fundamentals	173	11.0
	ITC 134	Computer Software Fundamentals	<u>163</u>	<u>10.0</u>
			336	21.0
Quarter 4	ITC 143	Network Server Operating Systems	210	13.0
	ITC 144	Network Architecture Platforms & Topologies	<u>126</u>	<u>8.0</u>
			336	21.0
Quarter 5	ITC 210	Cisco Networking I	276	15.0
	ITC 212	Cisco Networking II	<u>60</u>	<u>3.5</u>
			336	18.5
Quarter 6	ITC 220	Cisco Networking II (continued)	216	12.5
	ITC 222	Cisco Networking III	<u>120</u>	<u>7.0</u>
			336	19.5
Quarter 7	ITC 230	Basic Telephony & Cabling Standards	128	8.0
	ITC 231	Voice Communication Systems I	188	12.0
	ITC 232	Employment Search: Resumes & Interview Skills	<u>20</u>	<u>1.0</u>
			336	21.0
Quarter 8	ITC 240	Voice Communication Systems II	112	6.5
	ITC 241	Limited Energy	104	6.5
	ITC 242E	Externship	<u>120</u>	<u>4.0</u>
			336	17.0
Program Totals			2,688	160.5

INFORMATION TECHNOLOGY & COMMUNICATION SYSTEMS COURSE DESCRIPTIONS

ITC 110 Applied Mathematics for Electronics

Mathematics required to evaluate and understand the electronic circuits and equipment which will be covered.

ITC 111 Electronics: Fundamentals I

Basic electronic components and DC circuit operation are introduced including test equipment and tools. DC network analysis, AC circuits, and their effect on reactive components are covered as well. Application of the technical knowledge acquired in the classroom to practical electronic circuits in a lab environment. The concepts of teamwork, analytical problem solving, and troubleshooting are introduced. The students begin preparing a portfolio, documenting their experiences and training through the program.

ITC 120 Electronics: Fundamentals II

Advanced DC and AC electronics, transistors, and integrated circuit operational amplifiers. Boolean algebra and binary arithmetic provide the basis for the understanding of digital logic circuits utilizing logic gates and combinational logic. Application of the technical knowledge acquired in the classroom to practical power supplies, transistor amplifiers and switches, and operational amplifier circuits, digital circuits in a lab environment.

ITC 121 Wireless Technology

Radio frequency theory, noise, bandwidth, analog and digital modulators. RF transmission and reception, propagation, transmission lines, and antenna systems are covered. Lab projects enable the application of the technical knowledge acquired in the classroom to RF modulators, radio receivers, antenna systems, and transmitters.

ITC 133 Computer Hardware Fundamentals

Theory, operation, assembly, and maintenance of personal computer hardware and peripheral devices, in a hands-on lab environment. Preparation for the CompTIA A+ certification. Hardware installation and troubleshooting is accomplished which allows the student to apply the technical knowledge acquired in the classroom.

ITC 134 Computer Software Fundamentals

Operation of PC operating systems, including: software installation, management, utilities, and troubleshooting in a lab environment. Students experience Workstation configuration using different operating systems as well as virtualization software teaching students the skills necessary to troubleshoot a variety of computer systems.

ITC 143 Network Server Operating Systems

Installation and configuration of Windows server. Configuration of virtual machines and networks, DHCP and DNS services, domain controllers and active directory along with group policy and security policies. Preparation for the Microsoft Server certification. Technical knowledge acquired in the classroom will be utilized in a lab setting. Installing, configuring and troubleshooting a Windows server and the utilities involved.

ITC 144 Network Architecture Platforms & Topologies

Continuation of Windows server implementation. Principles, design, implementation, and administration of the latest industry network architectures and topologies. Virtualized network environments to provide service and applications to end users are covered, as well as network storage and cloud infrastructure. Application of this knowledge will be utilized in a lab environment.

ITC 210 Cisco Networking I

Intro to Networking—This course introduces the architecture, structure, functions, components and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

ITC 211 Cisco Networking II

Routing and Switching—This course describes the architecture, components and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.

ITC 220 Cisco Networking II (continued)

ITC 221 Cisco Networking III

Scaling Networks—This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP.

ITC 230 Basic Telephony & Cabling Standards

Prepares the student to enter the telephone industry. Cabling installation, telephone sets, and local loop are covered. The history of the industry and industry terms are presented. National Electrical Code and industry cabling and equipment standards are covered. Data cable installer certificate obtained through industry provided certification. (Certification may occur in quarter 7 or 8). Lab exercises allow students hands-on experience with industry standard tools and practice in the installation and testing of copper and fiber optic cable systems for voice and data networks.

ITC 231 Voice Communications Systems I

Installation, programming, and troubleshooting of business telephone systems including key systems, hybrids, and an introduction to PBX switching equipment in a simulated business environment. Transmission lines and long distance networks, which tie telephone switches together, are covered. Customer service concepts are presented to enable the student to communicate effectively with the customer. Lab exercises allow students hands-on experience and comprehension in the installation, programming, and maintenance of various business communication systems.

ITC 232 Employment Search: Resumes & Interview Skills

Designed to prepare the student to mount an effective job search. Resume preparation, interview skills, and the job application process are covered as the portfolio preparation process is completed.

ITC 240 Voice Communication Systems II

A continuation of quarter 7 Voice Communication Systems. The convergence of voice and data, through the development of Computer-Telephone Integration (CTI) and Voice over Internet (VoIP) concepts. Installation, programming, and troubleshooting of PBX and VoIP equipment in a simulated business environment is accomplished. Voice mail is integrated into the system and the

programming of system features is accomplished. Customer service concepts are presented to enable the student to communicate effectively with the customer. Lab exercises allow students hands-on experience and comprehension in the installation, programming, and maintenance of various business communication systems.

ITC 241 Limited Energy

Limited Energy Systems: Alarms and amplified sound. Fire alarm system installation, programming, and troubleshooting are covered. Proper installation practices are covered in accordance with the National Electrical Code and NFPA 72: National Fire Alarm Code. Amplified sound and speaker systems, including 70V centralized systems and intercom systems are covered. Introduction to Power over Ethernet (PoE) cable and device installation will also be covered in accordance with the Washington State Limited Energy System guidelines. Lab exercises allow students hands-on experience and comprehension in the installation, programming, and maintenance of various limited energy systems.

ITC 242E Externship

Qualifying students have the option of obtaining practical experience in a workplace environment in lieu of the last month of training on campus. Externships must relate to the training that would occur in the last quarter of ITCS and must be approved by the Department Head. If the student does not obtain an externship, he/she will be responsible for completing an on-campus capstone project.

INFORMATION TECHNOLOGY & COMMUNICATION SYSTEMS BOOK AND TOOL LIST

The book and tool list for students in the Information Technology & Communication Systems program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 15.

INFORMATION TECHNOLOGY & COMMUNICATION SYSTEMS EQUIPMENT LIST

Students in the Information Technology & Communication Systems program utilize the following equipment:

Personal computers and servers
Cisco routers
Network switches
Wireless access points
Fluke EtherScope
Fluke network analyzer, cable certifiers, and testers
Digital multi-meters
Oscilloscopes, signal generator, and power supplies
Spectrum analyzers
Cell site test sets
AM/FM signal generators/modulators
Antenna system testers
In-line watt meters
Telephone key system, PBX, and VoIP system
Voice mail system
PA systems 24V and 70V
Fire alarm system

instrumentation & industrial automation technology

Perry Technical Institute's Instrumentation & Industrial Automation Technology program introduces students to today's world of computerized industrial automated manufacturing.

The program's curriculum covers basic mathematics for electronics, electricity, solid state, digital devices, applied physics, and calculus. Programmable logic controllers, transmitters, transducers, recorders, and controllers are used to simulate control techniques. Temperature, level, flow, and pressure are just a few of the process controls that instrumentation technicians monitor, install, troubleshoot, repair, and calibrate.

The goal of the Instrumentation & Industrial Automation Technology program is to provide the resources and instruction students need to obtain entry-level employment as instrumentation technicians. Trained instrument technicians work in industries such as petrochemical, pulp and paper, chemical, food processing, metal refining, power generation, and engineering.

The Instrumentation & Industrial Automation Technology program is 24 months in length (eight quarters). The student will earn 159.0 credit hours which are 2,688 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Instrumentation & Industrial Automation Technology program is 22:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	IN 110	Math for Electronics	137	9.5
	IN 111	Electrical Fundamentals I	95	6.5
	IN 112L	Lab & Shop Projects	<u>104</u>	<u>5.0</u>
			336	21.0
Quarter 2	IN 120	Solid State Devices	72	5.0
	IN 121	Electrical Fundamentals II	108	7.5
	IN 122L	Lab & Shop Projects	<u>156</u>	<u>7.5</u>
			336	20.0
Quarter 3	IN 130	Operational Amplifiers	84	5.5
	IN 131	Physics I	50	3.5
	IN 132	Instrumentation I	43	3.0
	IN 133L	Lab & Shop Projects	<u>159</u>	<u>7.5</u>
			336	19.5
Quarter 4	IN 140	Physics II	110	7.5
	IN 141	Calculus I	43	3.0
	IN 142	Instrumentation II	65	4.5
	IN 143L	Lab & Shop Projects	<u>118</u>	<u>5.5</u>
			336	20.5
Quarter 5	IN 210	Calculus II	72	5.0
	IN 211	Instrumentation III	69	4.5
	IN 212	Motor Control	25	1.5
	IN 213L	Lab & Shop Projects	<u>170</u>	<u>8.5</u>
			336	19.5
Quarter 6	IN 220	Industrial Computing I	95	6.5
	IN 221	Instrumentation IV	100	7.0
	IN 222L	Lab & Shop Projects	<u>141</u>	<u>7.0</u>
			336	20.5
Quarter 7	IN 230	Programmable Logic Controllers	90	6.0
	IN 231	Digital Fundamentals	87	6.0
	IN 232	Networking Fundamentals	30	2.0
	IN 233L	Lab & Shop Projects	<u>129</u>	<u>6.0</u>
			336	20.0
Quarter 8	IN 240	Analytical Instruments	64	4.5
	IN 241	Industrial Computing II	30	2.0
	IN 242	Employment Preparation	72	5.0
	IN 243L	Lab & Shop Projects	50	2.5
	IN 244E	Externship	<u>120</u>	<u>4.0</u>
			336	18.0
		Program Totals	2,688	159.0

INSTRUMENTATION & INDUSTRIAL AUTOMATION TECHNOLOGY COURSE DESCRIPTIONS

IN 110 Math for Electronics

This course covers numbers, addition, subtraction, multiplication, and division of polynomials, equations, powers of 10, units and dimensions, special products and factoring, algebraic fractions, fractional equations, graphs, simultaneous equations, exponents and radicals, and quadratic equations.

IN 111 Electrical Fundamentals I

Introduces electric circuits, starting with the nature of electricity, Ohm's Law and electrical calculations, conductors, insulators, and resistors, series resistive circuits, parallel resistive circuits, series-parallel resistive circuits, voltage cells, and batteries. Network analysis techniques and network theorems are also covered.

IN 112L Lab & Shop Projects

School rules, conduct and dress code, including proper clothing requirements and the use of safety glasses, general safety practices concerning the usage and proper maintenance procedures for electrical and general shop equipment. First aid and CPR training for two-year certification, tool and book purchases, explanation of ISA, overview of basic personal computer operation including the Windows environment focusing on desktop and Explorer. Microsoft Word will be incorporated into technical report writing skills, use of word processor for lab assignments, and applying classroom theory to practical lab assignments.

IN 120 Solid State Devices

The curriculum covers basic definitions, semiconductor diodes, rectifier diode circuits, basic DC power supply, and transformer usage. DC power supplies – single phase, transistor as DC switch, transistor as an AC amplifier, silicon controlled rectifiers, triac, diac, and unijunction transistor, and solid state transducers.

IN 121 Electrical Fundamentals II

Electrical fundamentals are expanded. Magnetism, magnetic circuits, inductance, capacitance, series and parallel AC circuits, and power in AC circuits. Angles, trigonometric functions, trigonometric tables, solution of right triangles, trigonometric identities and equations, elementary plane vectors, periodic functions, and phasor algebra.

IN 122L Lab & Shop Projects

Classroom theory is applied to practical lab assignments and simulators, using Microsoft Word and AutoCad.

IN 130 Operational Amplifiers

Students are introduced to OP Amps and have their first experiences with inverting and non-inverting amplifiers, comparators and controls, differential, instrumentation, and bridge amplifiers, and integrated circuit timers.

IN 131 Physics I

Technical mathematics and friction, equilibrium, projectile motion, torque and rotational equilibrium, and uniformly accelerated motion are covered in this section of physics.

IN 132 Instrumentation I

Loop concepts, calibration methods, analog transmitters, transducers, controllers, and process variables are covered.

IN 133L Lab & Shop Projects

Classroom theory is applied to practical lab assignments and simulators, using Microsoft Word and AutoCad.

IN 140 Physics II

Uniformly accelerated motion is covered in this section of physics. Newton's Second Law; work, energy and power; impulse and momentum; simple machines; elasticity; fluids at rest; fluids in motion; temperature and expansion; quantity of heat; transfer of heat; and thermal properties of matter are covered.

IN 141 Calculus I

Students learn analytic geometry, equations of curves and curve sketching, functions, and derivatives.

IN 142 Instrumentation II

This course covers instrumentation concepts, calibration, analog and smart transmitters, transducers, and process variables.

IN 143L Lab & Shop Projects

Classroom theory is applied to practical lab assignments and simulators, using Microsoft Word and AutoCad. Safety is stressed at all times.

IN 210 Calculus II

Students will learn formulas for calculating derivatives, applications of derivatives, anti-differentiation, trigonometric functions, and definite integral calculus.

IN 211 Instrumentation III

This course covers process and instrumentation diagramming, loop sheets, electrical diagramming, proportional, integral and derivative controls, and tuning controllers.

IN 212 Motor Control

Students learn about lock-out tag-out, electric symbols, ladder diagramming, contactors, single-phase, three-phase, DC motors, and variable speed devices.

IN 213L Lab & Shop Projects

Classroom theory is applied to practical lab assignments and simulators, using Microsoft Word and AutoCad. Safety is stressed at all times.

IN 220 Industrial Computing I

Curriculum explores configurations of distributive process control, hardware implementations, and plant loop communications all utilizing control simulators.

IN 221 Instrumentation IV

Instrumentation IV covers configurations of distributive process control, hardware implementations, and plant loop communications all utilizing control simulators, Fluid power systems, control valves, and valve positioners. Advanced control concepts.

IN 222L Lab & Shop Projects

Classroom theory is applied to practical lab assignments and simulators, using Microsoft Word and AutoCad. Safety is stressed at all times.

IN 230 Programmable Logic Controllers

The course provides an overview of PLCs, PLC hardware components, fundamentals of logic, basics of PLC programming, developing PLC ladder and wiring diagrams, and basic PLC functions.

IN 231 Digital Fundamentals

Introductory digital concepts, number systems, operations, and codes, logic gates are covered along with Boolean algebra and logic simplification, combinational logic, functions of combinational logic, flip-flops, and related devices.

IN 232 Networking Fundamentals

The course introduces networks, network components, and real-world networks.

IN 233L Lab & Shop Projects

Classroom theory is applied to practical lab assignments and simulators, using Microsoft Word and AutoCad. Safety is stressed at all times.

IN 240 Analytical Instruments

Students will explore applications and implementation of process analyzer systems and study chemistry as it pertains to process analyzers. Theory and operation of electrochemical and compositional process analyzers will be covered.

IN 241 Industrial Computing II

Industrial Computing II expands upon hardware and software configurations and implementation utilizing software packaged for personal computers that provides interfaces between operator and controller. HMI software configurations on PLC-controlled simulators are also explored.

IN 242 Employment Preparation

Students will create a resume to be used in the job search and develop of a list of potential employers for setting interview schedules. Interviewing techniques will be discussed and feedback will be given from practice interviews. Students will also review material from previous sections.

IN 243L Lab & Shop Projects

Classroom theory will be applied to practical lab assignments and simulators, using Microsoft Word and AutoCad. Safety is stressed at all times.

IN 244E Externship

Students who have a job offer as an instrumentation technician may leave the program and work in the field under a training extern agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required. The Learning Resource System (LRS) contains valuable resources to assist in the completion of this project. Students not receiving an externship will be required to complete a SCADA capstone project.

INSTRUMENTATION & INDUSTRIAL AUTOMATION TECHNOLOGY BOOK AND TOOL LIST

The book and tool list for students in the Instrumentation & Industrial Automation Technology program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 15.

INSTRUMENTATION & INDUSTRIAL AUTOMATION TECHNOLOGY EQUIPMENT LIST

Students in the Instrumentation & Industrial Automation Technology program utilize the following equipment:

- Computers
- Signal generators
- Oscilloscopes and related electronic equipment
- Digital multi-meter
- Analog/digital transmitter
- Control valves
- Recorders
- Variable frequency drives
- Motor control stations
- Pumps
- PLC labs
- HMI labs
- Hydraulic labs
- Smart communication devices
- Distributed control system

medical assistant

The Medical Assistant program prepares students for entry-level positions with medical offices and hospitals. Students will be equipped with valuable skills in office administration as well as clinical and patient care skills. Medical assistants are commonly employed in physicians' offices, outpatient clinics, health maintenance organizations, and hospitals. The program consists of four quarters of coursework followed by an externship with a local employer.

The goal of the Medical Assistant program is to prepare graduates for entry-level positions as medical assistants.

The Medical Assistant program is 12 months in length (four quarters). The courses prepare students to take the Registered Medical Assistant (RMA) examination. The student will earn 74.5 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus. The student to teacher ratio for the Medical Assistant Program is 24:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	MED 110	Computer Applications	80	5.0
	MED 111	Business English	60	3.5
	MED 116	Business Presentation & Communication	60	3.5
	MED 126	The Human Body In Health & Disease I	70	4.0
	MED 132	Medical Terminology	<u>66</u>	<u>4.0</u>
		336	20.0	
Quarter 2	MED 127	Office Administration	70	4.0
	MED 128	HIPAA, Ethics, Blood Borne Pathogens	60	3.5
	MED 136	The Human Body In Health & Disease II	66	4.0
	MED 142	Pharmacology I	70	4.0
	MED 143	Clinical Procedures I	<u>70</u>	<u>4.0</u>
		336	19.5	
Quarter 3	MED 124	Career Planning	50	3.0
	MED 144	Practice Management & EHR	80	4.5
	MED 210	Clinical Aspects of Coding & Billing	50	3.0
	MED 212	Pharmacology II	80	5.0
	MED 213	Clinical Procedures II	<u>76</u>	<u>4.5</u>
		336	20.0	
Quarter 4	MED 221	Clinical Procedures III	90	5.0
	MED 222	Electronic Health Records	86	5.0
	MED 223E	Externship	<u>160</u>	<u>5.0</u>
		336	15.0	
		Program Totals	1,344	74.5

MEDICAL ASSISTANT COURSE DESCRIPTIONS

MED 110 Computer Applications

This course covers the basics of computer hardware and software, networks, the Internet, Word, Excel, basic keyboarding, and Outlook.

MED 111 Business English

A concentrated review of sentence writing, this course emphasizes sentence combining, basic mechanics, and paragraph writing.

MED 116 Business Presentation & Communication

This course provides instruction in developing presentation materials, public speaking, and Microsoft PowerPoint. Students will be exposed to a wide variety of communication skills necessary for success in medical assisting. Student will be given the opportunity to practice active listening, motivational interviewing, patient education, and communicating through an interpreter. Emphasis is also placed on the fundamentals of etiquette as they relate to business relationships inside and outside the office.

MED 126 The Human Body in Health & Disease I

An introduction to the structure and function of the human body utilizing a system approach. Emphasis placed on human anatomy as well as the physiology of the cell, skeletal system, muscular system, nervous system, cardiovascular, respiratory, urinary, reproductive, endocrine, digestive, lymphatic, special senses, and integumentary systems. Emphasis placed on the disease processes affecting the human body via an integrated approach to specific disease entities, including the study of causes, diagnosis, and treatment of disease.

MED 132 Medical Terminology

This course is designed to teach students to accurately spell, pronounce, and define common medical terms related to major disease processes, diagnostic procedures, laboratory tests, abbreviations (including legal), drugs, and treatment modalities.

MED 127 Office Administration

This course is designed to teach students reception duties, the operation of office equipment, collections, financial management, and basic math skills as they relate to medical assistant duties.

MED 128 HIPAA, Ethics, & Blood Borne Pathogens

This course examines the ethical challenges facing individuals and businesses in modern society. The course utilizes case studies of professionals working in various areas of business and provides guest speakers with real-world experiences. Students will receive blood borne pathogens training.

MED 136 The Human Body in Health & Disease II

This course is a continuation of MED 126.

MED 142 Pharmacology I

Provides a basic knowledge of pharmacology, including the legal and ethical issues; terms and abbreviations; involvement of governmental agencies; role of providers and allied health professionals; and reading, interpreting and documenting medication orders. This class includes the administration of medication including: safety and quality assurance, enteral, percutaneous, and parenteral routes of medication, medication for multi-system application, and medications related to body systems. This course contains a math component with regard to administering medications.

MED 143 Clinical Procedures I

Demonstrations are provided on assisting the physician in performing physical examinations. Emphasis is placed on obtaining the medical history, measuring vital signs, auditory and visual testing, exam room preparation, equipment set-up, and proper positioning and draping of patients. Patient charting and documentation is also practiced. OSHA and PPE will be covered in this course.

MED 124 Career Planning

This course is designed to teach students how to write a professional resume package and to learn basic interviewing skills.

MED 144 Practice Management & EHR

Overview of commonly available software tools used in health care. Introduction to the electronic health record process and medical office database management software found in American health care delivery.

MED 210 Clinical Aspects of Coding & Billing

Overviews of Medicaid, Medicare, private insurance, and managed care verification and benefits are presented. Pre-authorization, referral procedures, and medical record documentation will be practiced. This course includes an introduction to the basics of diagnostic and procedure coding and presents students with the characteristics and conventions of ICD-9-CM, ICD-10-CM, CPT-4, and HCPCS coding.

MED 212 Pharmacology II

This is the second of two pharmacology classes. Students will learn the effects of medication and common drugs used with each body system including antineoplastics, analgesics, antipyretics, nutritional supplements, and alternative medicines. Students will be introduced to WA IIS. Inventory control and management processes will also be taught.

MED 213 Clinical Procedures II

Techniques are taught to enable students to perform the routine laboratory procedures conducted in physicians' offices. Information regarding laboratory mathematics and measurement, use of laboratory equipment, collection and processing of specimens, microbiology, phlebotomy, and routine blood testing is presented. Students will learn about CLIA regulations and what types of tests can be conducted in a CLIA-waived lab. Students will also learn about and practice set up and assisting techniques for various surgical procedures.

MED 221 Clinical Procedures III

This course provides a review of the material covered in Clinical Procedures I and II. Students will demonstrate competency in each of the areas taught during the previous courses, as well as cover additional material related to specialty procedures. This course will also cover externship preparation as well lab safety, electrocardiography, pulmonary testing, and urinalysis.

MED 222 Electronic Health Records

Students will use a simulated EHR to practice hands-on documentation.

MED 223E Externship

This externship provides the student an opportunity to apply the principles and practices learned in the program and utilize entry-level medical assistant skills in working with patients. The student will work under the direct supervision of qualified personnel at the participating site, and under general supervision of program faculty. Performance evaluations will be received bi-weekly from the supervising personnel at the participating site.

MEDICAL ASSISTANT PROGRAM BOOK AND TOOL LIST

The book and tool list for students in the Medical Assistant program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

MEDICAL ASSISTANT PROGRAM EQUIPMENT LIST

Students in the Medical Assistant program utilize the following equipment:

- Computers
- Exam tables
- ECG/EKG unit
- Autoclave
- Microscopes
- Venipuncture and injection simulators

medical office administration & coding program

Perry Technical Institute's Medical Office Administration & Coding program provides a combination of training in traditional office skills, soft skills, and specialized medical office billing and coding procedures.

Students gain a solid understanding of computers including entry-level keyboarding operations, basic computer maintenance, the Windows operating system, and software applications. Students learn the soft skills needed in the office environment and the importance of career planning and how to develop a positive customer service environment. Students then advance into more specialized subjects. They learn the basics of working in a medical office setting. Subjects include: medical terminology, anatomy and physiology, human diseases, medical office procedures, and basic and advanced diagnostic and procedures coding.

The program prepares students to take the AAPC's Certified Professional Coder (CPC) exam.

The goal of the Medical Office Administration & Coding program is to prepare graduates for entry-level positions in the growing field of health care. Graduates of this program will be prepared for positions such as: medical office assistant, medical coder, receptionist, reimbursement specialist, and other administrative positions in medical offices, hospitals, and other health care organizations.

The Medical Office Administration & Coding program is 12 months in length (four quarters). The student will earn 77 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Medical Office Administration & Coding program is 24:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	MOA 110	Computer Applications	66	4.0
	MOA 111	Business English	50	3.0
	MOA 112	Keyboarding	60	3.5
	MOA 117	The Human Body in Health & Disease	80	5.0
	MOA 132	Medical Terminology	<u>80</u>	<u>5.0</u>
			336	20.5
Quarter 2	MOA 126	Intro to CPT & ICD-10 Coding	75	4.5
	MOA 128	Electronic Health Care Records	86	5.0
	MOA 131	Health Care Law & Ethics	50	3.0
	MOA 133	Medical Career Planning	40	2.5
	MOA 135	Computers in Health Care	<u>85</u>	<u>5.0</u>
			336	20.0
Quarter 3	MOA 136	Intermediate CPT & ICD-10 Coding	85	5.0
	MOA 137	Medical Reimbursement I	85	5.0
	MOA 143	Medical Office Procedures	90	5.5
	MOA 212	Health Care Delivery Systems	<u>76</u>	<u>4.5</u>
			336	20.0
Quarter 4	MOA 144	Advanced CPT & ICD-10 Coding	54	3.0
	MOA 145	Medical Reimbursement II	85	5.0
	MOA 210	Business Communication	77	4.5
	MOA 223E	Medical Coding Practicum Externship	<u>120</u>	<u>4.0</u>
			336	16.5
		Program Totals	1,344	77.0

MEDICAL OFFICE ADMINISTRATION & CODING PROGRAM COURSE DESCRIPTIONS

MOA 110 Computer Applications

This course covers the basics of computer hardware and software, networks, the Internet, Outlook, Word and Excel.

MOA 111 Business English

A concentrated review of sentence writing, this course emphasizes sentence combining, basic mechanics, and paragraph writing.

MOA 112 Keyboarding

In this course, students learn beginning typing and 10-key skills. The objectives are for students to learn how to type by touch and how to take a timed keyboarding test for accuracy and speed.

MOA 117 The Human Body in Health & Disease

An introduction to the structure and function of the human body utilizing a system approach. Emphasis placed on the basics of human anatomy as well as the physiology of the, skeletal system, muscular system, nervous system, cardiovascular, respiratory, urinary, reproductive, endocrine, digestive, lymphatic, special senses, and integumentary systems. This course will also cover the diseases and interventions commonly used in each system.

MOA 126 Introduction to CPT & ICD-10 Coding

This course is an introduction to basic coding concepts. Focus is placed on using official coding guidelines correctly and the course includes extensive practice coding exercises.

MOA 128 Electronic Health Care Records

Overview of commonly available software tools used in health care. Introduction to the electronic health record process and medical office database management software found in American health care delivery.

MOA 131 Health Care Law & Ethics

This course examines the ethical challenges facing individuals and businesses in modern society. The course utilizes case studies of professionals working in various areas of business and provides guest speakers with real-world experiences. Great emphasis is placed on HIPAA and Washington State Privacy laws.

MOA 132 Medical Terminology

This course is designed to teach students to accurately spell, pronounce, and define common medical terms related to major disease processes, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities.

MOA 133 Medical Career Planning

Students learn advanced interviewing skills, how to construct a portfolio of their work, and job-seeking skills. This course will guide the student through the elements of career planning, including self-understanding and exploring a variety of medical careers paths.

MOA 135 Computers in Health Care

Overview of commonly available software tools used in health care. Introduction to the electronic health record process and medical office database management software found in American health care delivery.

MOA 136 Intermediate CPT & ICD-10 Coding

This course will serve as a continuation of basic diagnostic coding

and the characteristics and conventions of ICD-10-CM coding. A brief history of ICD-9 and the transition to ICD-10-CM will be covered. Students will analyze and discuss case studies using more complex code assignments with ICD- 10-CM. This course will also provide some review in medical terminology and anatomy.

MOA 137 Medical Reimbursement I

Students will study federal, state, and private health insurance plans including managed care systems. Students will learn the processing cycle of health insurance claims, health insurance terminology, reimbursement methodologies for professional services, and proper completion of the 1500 billing form. Students will have hands-on experience with simulated practice management software. An overview of billing system management reports and legal issues related to reimbursement processing. Students will learn math concepts associated with coinsurance, deductibles, allowables, and RVUs.

MOA 143 Medical Office Procedures

This course introduces and teaches the tasks of a medical office assistant's career: How to perform administrative functions, records management, medical communications, scheduling appointments, and an introduction to patient billing and processing insurance claims. Emphasis is placed on developing a working knowledge of concepts, processes, and procedures in the billing cycle from point of service to receipt of payment. The course covers how to recognize components of a compliance plan for physician office billing, filing of appeals and focuses on decision making and critical thinking activities. Students will learn the importance of customer service in the medical industry. Effective verbal communication and telephone skills are taught. Problem resolution skills and how to handle difficult situations are important elements of this course. Students use Medisoft Practice Management to complete real-world scenarios.

MOA 144 Advanced CPT & ICD-10 Coding

This course provides students with advanced understanding of complex coding scenarios, with an emphasis on medical coding services such as medical visits, diagnostic testing and interpretation, treatments, surgeries, and anesthesia. This course covers more advanced coding concepts using step-by-step methods that give a more in-depth understanding of physician-based medical coding to ensure gathering the correct information from documents, selecting the right codes, and determining the correct sequencing of those codes.

MOA 145 Medical Reimbursement II

This course is a continuation of Medical Reimbursement I. Students will continue to work through the same objectives for Medical Reimbursement I.

MOA 210 Business Communication

Students learn how to establish credibility in the workplace as well as the principles of interpersonal communication. This course will give students the skills they need for team communication, difficult conversations, managing meetings, and creating effective business messages.

MOA 212 Health Care Delivery Systems

Students will demonstrate an understanding of health care delivery systems. They will analyze the organization of health care delivery in hospitals, mental health and ambulatory care centers, home health agencies, and nursing homes. Students will have extensive hands-on experience with the UBO4. Emphasis is placed on hospital inpatient billing.

MOA 223E Medical Coding Practicum Externship

The externship will provide students with coding practices in a hospital, physician's office, clinic or other health care setting with directed projects common to a clinical coding specialist on the job. Students will practice with clinical code assignments and billing methodologies, including projects and cases that replicate typical coding tasks in a physician's office, hospital outpatient clinic, ambulatory surgery, and hospital acute care settings that employ coding professionals. This practicum will focus on building speed and accuracy using actual medical records. If the student does not obtain an externship, completion of a capstone project is required.

MEDICAL OFFICE ADMINISTRATION & CODING BOOK AND TOOL LIST

The book and tool list for students in the Medical Office Administration & Coding program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

MEDICAL OFFICE ADMINISTRATION & CODING EQUIPMENT LIST

Students in the Medical Office Administration & Coding program utilize the following equipment:

- Computers
- Copy machines
- Scanners
- Fax machines
- 10-key calculator

precision machining & manufacturing

Perry Technical Institute's Precision Machining & Manufacturing program teaches students the machine trade through the integration of machining theory and practical application in the machine shop. Students use the skills they learn to plan and carry out the operations needed to make machined products that meet precise specifications.

The working properties of metals, applied mathematics, blueprint reading, computer numerical control (CNC) programming, and computer-aided manufacturing (CAM) using Mastercam are some of the subjects students study to develop the skills demanded by today's industry. The program prepares students to take the Mastercam certification exam.

The goal of the Precision Machining & Manufacturing program is to prepare students for entry-level positions in a variety of manufacturing fields. Graduates will be qualified for positions in industries such as manufacturing, prototyping, job shops, power generation, aerospace, food processing, medical equipment, and other specialty machining industries.

The Precision Machining & Manufacturing program is 12 months in length (four quarters). The student will earn 75 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Precision Machining & Manufacturing program is 24:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	PM 110	Industrial Mathematics I	60	4.0
	PM 111	Elementary Blueprint Reading I	30	2.0
	PM 112	Machine Tool Practices I	30	2.0
	PM 113L	Machine Lab	<u>216</u>	<u>11.5</u>
			336	19.5
Quarter 2	PM 120	Industrial Mathematics II	60	4.0
	PM 121	Elementary Blueprint Reading II	30	2.0
	PM 122	Machine Tool Practices II	30	2.0
	PM 123L	Machine Lab	<u>216</u>	<u>11.5</u>
			336	19.5
Quarter 3	PM 130	GD&T I	30	2.0
	PM 131	CNC Machine Tool Operation I	60	4.0
	PM 132	Mastercam Mill Level One I	30	2.0
	PM 133L	Machine Lab	<u>216</u>	<u>11.5</u>
			336	19.5
Quarter 4	PM 140	GD&T II	30	2.0
	PM 141	CNC Machine Tool Operation II	60	4.0
	PM 142	Mastercam Mill Level One II	30	2.0
	PM 143	Machine Lab	76	4.0
	PM 144E	Machine Externship	<u>140</u>	<u>4.5</u>
			336	16.5
		Program Totals	1,344	75.0

PRECISION MACHINING & MANUFACTURING COURSE DESCRIPTIONS

PM 110 Industrial Mathematics I

Operations with fractions, mixed numbers, and decimals as they relate to the machine trades. The topics covered are the basic math skills of addition, subtraction, multiplication, and division. Calculations involving exponents are also covered as well as the fundamentals of algebra found in the machine trades. Topics include using the principles of equality and rearranging of formulas to solve common shop problems.

PM 111 Elementary Blueprint Reading I

Develops the fundamental skills needed to read and interpret industrial drawings. Topics covered include drawing layouts, drawing symbols, and the different drawing views used to describe machined parts.

PM 112 Machine Tool Practices I

This course covers general shop safety as well as procedures for each group of machine tools. Topics including proper clothing, eye protection, lifting, first aid, and CPR. Also covered are the operation and setup of turning machines, drill presses, sawing machinery, and shop presses along with an introduction to turning machines. Topics include tooling, machine operation, the different types of lathes, including nomenclature, and set-up theories. Other topics include the use of hand tools, the use of measuring instruments such as steel rules, vernier scales, micrometers, and dial indicators. Dimensional measurements will encompass comparison measuring tools, gage blocks, and angular measuring tools. Precision layout techniques, drill bit sharpening, and tapping are also covered.

PM 113L Machine Lab

Classroom theory on the operation of drill presses, band saws, bench grinders, and basic hand tools will be applied in the shop. Operations performed will include filing a block square, hacksaw use, precision hole layout, drill bit sharpening, drilling, and tapping. Classroom theory on the operation and set-up of engine lathes will be applied in the shop. Operations will include turning, thread cutting, grooving, drilling, and tapping. Also covered are the set-ups of four-jaw chucks and collets.

PM 120 Industrial Mathematics II

This course covers the fundamentals of plane geometry. Common shop problems are solved by applying the geometric principles of triangles, common polygons, and circles. Other topics covered include area and volume calculations, trigonometric functions as they apply in the machine trades, calculations of angles and sides of right triangles, the Cartesian coordinate system, and the laws of sines and cosines.

PM 121 Elementary Blueprint Reading II

Further develops the skills learned in Elementary Blueprint Reading I. Topics covered include the dimensions and symbols used to call-out common features such as counter bores, countersinks, fillets, and spot faces. Other topics include tapers, chamfers, bevels, and screw threads.

PM 122 Machine Tool Practices II

Covers operation and set-up theories of the vertical milling machine. Topics covered include face milling, rough/finish milling, hole layout, offset boring head, drilling, and tapping. Also covered are heat treating of materials, material properties, and material application.

Introductions to the horizontal milling machine and surface grinder will include tooling, set-ups, and operation demonstrations. Milling topics covered include face milling, rough, and finish milling. Surface grinding topics include selection of grinding wheels, coolant, and work-holding options. General shop procedures covered will include countersinking, counter boring, and reaming.

PM 123L Machine Lab

Classroom theory on the operation and set-up of the vertical and horizontal milling machines will be applied in the shop. Operations will include face milling, rough/finish milling, hole layout, drilling, and tapping. Also covered are general machine set-ups including dialing vises and head tramming. Classroom theory on the operation and set-up of the surface grinder will be applied in the shop. Surface grinder operations will include block squaring and angle grinding.

PM 130 GD&T I

This course covers the fundamental geometric dimensioning and tolerancing skills needed to interpret industrial drawings. Topics include basic dimensioning and tolerancing rules, definitions, symbols, form variation, and basic fits of mating parts. Other topics include datums, material conditions, and material boundaries. Baseline, chain, direct and alternate dimensioning methods are also covered.

PM 131 CNC Machine Tool Operation I

This course covers the manual programming of CNC machining centers. Topics include defining numerical control, machine types and layouts, coordinate geometry, basic machine control features, programming codes, program structure, tool function, reference points, work and tool offsets, and rapid positioning. Also covered are linear interpolation, fixed cycles, and hole machining.

PM 132 Mastercam Mill Level One I

This course teaches students how to create two- and three-dimensional models using Mastercam software. Topics include creating geometry, filleting, and trimming. Other topics include the use of mirror image and translation.

PM 133L Machine Lab

Students will complete a series of projects designed to hone the skills needed in industry. They will machine a series of precision parts on CNC machining and turning centers.

PM 140 GD&T II

A continuation of Geometric Dimensioning & Tolerancing I, this course further develops the geometric dimensioning and tolerancing skills needed to interpret industrial drawings. Topics covered include form tolerances, orientation tolerances, profile, run-out, and location tolerances.

PM 141 CNC Machine Tool Operation II

A continuation of CNC Machine Tool Operation I, this course covers the manual programming of CNC machining centers. Topics include cutter diameter compensation, plane selection, circular interpolation contour milling, face milling, and machining slots and pockets. Also covered are turning and boring, lathe fixed cycles, parting off and grooving, threading, facing, and contouring

PM 142 Mastercam Mill Level One II

Students use Mastercam to create two- and three- dimensional geometry and tool paths. Topics include toolpath selection, proper use of stock setup, tool libraries, and tool path verification.

PM 143L Machine Lab

Students will complete a series of projects designed to hone the skills needed in industry. They will machine a series of precision parts on CNC machining and turning centers.

PM 144E Machine Externship

Students work in various local machine shops under the supervision of an approved employer. Students must have a 3.0 GPA or better in current coursework, must not be under any type of probationary contract, and must complete and submit a regular work experience employer evaluation. The instructor or administration may terminate the externship at any time if the student does not adhere to the requirements stated in the externship training packet. If a student does not obtain an externship, completion of a machine capstone project will be required.

PRECISION MACHINING & MANUFACTURING BOOK AND TOOL LIST

The book and tool list for students in the Precision Machining & Manufacturing program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

PRECISION MACHINING & MANUFACTURING EQUIPMENT LIST

Students in the Precision Machining & Manufacturing program utilize the following equipment:

- Drill presses
- Arbor and hydraulic presses
- Precision measuring tools
- Tool and cutter grinding machines
- Band saws
- Vertical milling machines
- Horizontal milling machines
- Engine lathes
- Surface grinders
- Computers
- Gear hob
- CNC milling machines
- CNC turning centers
- CNC wire EDM machines
- Plunge EDM machines

welding technology

The Welding Technology program equips students with the skills they need to gain employment as entry-level welders in fields such as structural iron, manufacturing, fabrication, sanitary/food grade, repair, and power generation.

The program stresses safe practices for the welding industry. Students are immersed in classroom theory and hands-on lab instruction in welding, fitting, and related metalworking processes. The program provides students with a foundation that includes print reading and fabrication plans for welders. Coursework covers oxyfuel cutting and welding; carbon arc cutting and gouging; shielded metal arc welding; gas metal arc welding; flux core arc welding; gas tungsten arc welding; and pipe welding.

The curriculum progresses into advanced fabrication techniques using CAD drafting software. Students are required to demonstrate their skills by completing advanced welding projects. The program prepares students to sit for the American Welding Society (AWS) and Washington Association of Building Officials (WABO) certification tests.

The Welding Technology program is 12 months in length (four quarters). The student will earn 77 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Welding Technology program is 20:1.

PROGRAM OUTLINE

			Clock Hour	Credit Hours
Quarter 1	WLD 110	Introduction to Welding	100	6.0
	WLD 111	Fundamental Welding Skills & Fabrication	136	8.0
	WLD 112	Introduction to Print Reading	<u>100</u>	<u>6.5</u>
			336	20.5
Quarter 2	WLD 120	Shielded Metal Arc Welding	168	10.0
	WLD 121	Gas Metal Arc Welding	<u>168</u>	<u>10.0</u>
			336	20.0
Quarter 3	WLD 130	Flux Cored Arc Welding	168	10.0
	WLD 131	Gas Tungsten Arc Welding	<u>168</u>	<u>10.0</u>
			336	20.0
Quarter 4	WLD 140	Advanced Fabrication Techniques	136	8.0
	WLD 141	Introduction to Pipe Welding	80	4.5
	WLD 142E	Externship	<u>120</u>	<u>4.0</u>
			336	16.5
		Program Totals	1,344	77.0

WELDING TECHNOLOGY COURSE DESCRIPTIONS

WLD 110 Introduction to Welding

This course offers an introduction to safety practices and procedures that will be most commonly adhered to in the welding industry. Safety considerations will include proper clothing, eye protection, and workplace hazards. Students will be required to complete the OSHA 10 Web-based training and certification course. Students gain a basic understanding of the common welding procedures and terminology used such as oxyfuel, shielded metal arc welding, gas metal arc welding, flux core arc welding, and gas tungsten arc welding. Students learn to identify different metal types, gain a basic understanding of metallurgy and develop a higher understanding of mechanical property changes.

WLD 111 Fundamental Welding Skills & Fabrication

This course covers manual, semi-automatic, and CNC cutting operations such as mechanical, oxyfuel, plasma, and carbon-arc cutting/gouging. Students will also develop advanced skills in oxyacetylene welding, soldering, and brazing.

WLD 112 Introduction to Print Reading

This course offers an introduction to CAD software and blueprint designs. Students will develop the ability to interpret lines, dimensions and notes used on blueprints in the welding and fabrication trades. Mathematic fundamentals are applied to welding in the forms of cost estimation, angular measurement, geometric computation, and number conversions.

WLD 120 Shielded Metal Arc Welding

Students will analyze the use of shielded metal arc welding in industry and name the components that make up the schematic representation of the shielded metal arc. Topics of study will include appropriate arc temperature, welding machines, power supply, and cable size.

WLD 121 Gas Metal Arc Welding

Students receive introductory instruction regarding the process and theory of gas metal arc welding. Students will be exposed to related equipment, set-up procedures, and safety requirements.

WLD130 Flux Cored Arc Welding

In this course, students will gain an understanding of the flux cored arc welding process and related variables. Students will demonstrate the ability to make various fillet and groove welds as well as define the operational differences between the two main types of flux cored electrodes.

WLD 131 Gas Tungsten Arc Welding

Students will be able to apply the correct selection of tungsten, polarity, gas, and proper filler rod. They will perform fillet and groove welds with various electrodes and filler materials on steel, stainless steel, and aluminum.

WLD 140 Advanced Fabrication Techniques

During this course students will work with CAD software to design projects. Students will then perform these hands-on welding projects using specified processes referenced in WPS. During these projects students will learn to overcome fit-up problems, control warp age/distortion and other tolerance controls problems.

WLD 141 Introduction to Pipe Welding

This course introduces students to techniques used in the pipe welding industry. Students learn to produce acceptable welds on pipe and troubleshooting skills when working with pipe.

WLD 142E Externship

Students will learn advanced career planning practices and demonstrate skills and competencies in extern assignments. Students must have a "C+" or better in current coursework, must not be under any type of probationary contract, and must complete and submit a regular lab work experience employer evaluation. The instructor may terminate industry work experiences at any time if students do not adhere to these requirements. If the student does not obtain an externship, completion of the Welding capstone project is required.

WELDING TECHNOLOGY BOOK AND TOOL LIST

The book and tool list for students in the Welding Technology program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 14.

WELDING TECHNOLOGY EQUIPMENT LIST

Students in the Welding Technology program utilize the following equipment:

- Computers
- Shielded metal arc welding (stick)
- Gas tungsten arc welding (TIG/Heliarc)
- Gas metal arc welding (MIG)
- Flux cored arc welding
- Plasma arc cutting and gouging
- Carbon arc cutting and gouging
- Oxygen acetylene cutting, brazing, and soldering apparatus
- Variety of hand tools

board of trustees

Terry Schmalz
Curtis King
Jake Jundt

administration

Christine Coté, President
B.A. – Central Washington University

Tracy Stoffer, Senior Director of Finance & Administration
B.S. – Central Washington University
Certified Public Accountant

Nathan Hull, Dean of Education
B.S. – Central Washington University
B.A. – Eastern Washington University

Jason Lamiquiz, Associate Dean of Education
A.A.S. – Yakima Valley Community College

Jill Cope, Registrar
B.A. – Minot State University

Josh Phillips, Director of Information Technology
B.S. – City University
Certificate – Telecommunications, Perry Technical Institute

Erin Fishburn, Director of Institutional Effectiveness & Advancement
B.S. – Portland State University
M.B.A. – Marylhurst University

Nicole Trammell Woolpert, Director of Student Enrollment & Marketing
B.S. – Central Washington University
Certificate – Graphics, Perry Technical Institute

Leanne LaBissoniere, Director of Public Relations
B.A. – Central Washington University

Carol Helms, Director of HR for Faculty & Staff Development
A.A. – Yakima Valley Community College

Deann Bergquist, Director of HR for Payroll & Benefits
B.A. – Central Washington University
B.S. – Central Washington University
Professional Human Resources Certification

Mayra Fernandez, Director of Financial Aid
A.A.S. – Yakima Valley Community College

Chelsea Snodgrass, Director of Career Services
A.A. – Yakima Valley Community College
B.S. – Central Washington University

Kaila Lockbeam, Director of Facilities

Russ Warner, Director of Maintenance

faculty

AGRICULTURAL EQUIPMENT TECHNICIAN

Nick Romero, Department Head
A.O.S. – Universal Technical Institute

AUTOMOTIVE TECHNOLOGY

Dusty Morrill, Department Head

Isaac Espinoza, Associate Instructor

Sam Perez, Instructor

Michael Powell, Instructor
Certificate – Automotive, Perry Technical Institute

Ken Waggener, Instructor
Certificate – Automotive, Perry Technical Institute

BUSINESS TECHNOLOGY & ACCOUNTING

Valerie Ryan, Department Head
B.S. – Central Washington University
M.S. – Central Washington University

Mardell Newhouse
B.A. – University of Washington
M.B.A. – Western Governors University

CONSTRUCTION

ELECTRICAL TECHNOLOGY

Michael Yusi, Department Head
Certificate – Electrical, Perry Technical Institute

Forrest Buchmann, Instructor
Certificate – Electrical, Perry Technical Institute

Jerome Cobane, Electrical Field Instructor
Certificate – Electrical, Perry Technical Institute

Ray Cyr, Instructor
Certificate – Electrical, Perry Technical Institute

Cam Duncan, Instructor
Certificate – Electrical, Perry Technical Institute

Charles Espinoza, Instructor
Certificate – Electrical, Perry Technical Institute

Dan Lovestrand, Electrical Field Instructor
Certificate – Perry Technical Institute

Adam Rieker, Instructor
Certificate – Electrical, Perry Technical Institute

Matthew Shipley, Instructor
Certificate – Electrical, Perry Technical Institute

Mike Tucker, Instructor

Certificate – Electrical, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Ron Zike, Instructor

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION TECHNOLOGY

Justin McRitchie, Department Head

Certificate – HVAC/R, Perry Technical Institute

Craig Heckart, Instructor

Certificate – HVAC/R, Perry Technical Institute

Dan Henderson, Instructor

Certificate – HVAC/R, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Ignacio Lopez, Instructor

Certificate – HVAC/R, Perry Technical Institute

Rick Snider, Instructor

Certificate – HVAC/R, Perry Technical Institute

INFORMATION TECHNOLOGY & COMMUNICATION SYSTEMS

Andy Fischer, Department Head

Certificate – Telecommunications, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Jeanine Benoit, Instructor

Certificate – Telecommunications, Perry Technical Institute

Francisco Magana, Instructor

Certificate – Telecommunications, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Matt Sund, Instructor

Certificate – Telecommunications, Perry Technical Institute
B.A. – Central Washington University

INSTRUMENTATION & INDUSTRIAL AUTOMATION TECHNOLOGY

Tony Nirk, Department Head

Certificate – Instrumentation, Perry Technical Institute
A.A.S. – Pierce College Fort Steilacoom

Larry Dagdagan, Instructor

Certificate – Instrumentation, Perry Technical Institute

Casey Floren, Instructor

Certificate – Instrumentation, Perry Technical Institute

Patrick Jones, Instructor

Certificate – Instrumentation, Perry Technical Institute

John Koenes, Instructor

Certificate – Instrumentation, Perry Technical Institute

Doug Oswalt, Instructor

Certificate – Instrumentation, Perry Technical Institute

Gerry Ries, Instructor

Certificate – Instrumentation, Perry Technical Institute

Carlos Sanchez, Instructor

Certificate – Instrumentation, Perry Technical Institute

Max York, Instructor

Certificate – Instrumentation, Perry Technical Institute
A.A.S. – ITT Technical Institute

PRECISION MACHINING & MANUFACTURING TECHNOLOGY

Dan Steinmetz, Department Head

Jay Wellner, Instructor

Certificate – Machine, Perry Technical Institute

MEDICAL TECHNOLOGY

Lashel Church, Department Head

American Academy of Professional Coders – Certified

Ruby Aguilar, Associate Instructor

A.G.S. – Big Bend Community College
B.A. – Central Washington University
B.A. – Central Washington University
B.S.N. – Washington State University

Angela Fiscus, Instructor

Certificate – Medical Office Administration & Coding, Perry Technical Institute
American Academy of Professional Coders – Certified

Cheryl Johnson, Instructor

A.D.N. – Yakima Valley Community College

WELDING TECHNOLOGY

Scott Nathlich, Instructor

Leonard Thompson, Instructor

A.T.A. – Centralia Community College

Scott Hamway, Instructor

A.A.S. – Washtenaw Community College

phone list

Perry Technical Institute Main Office is open Monday through Thursday from 6:30 a.m. to 5:30 p.m.

The Learning Resource Center is open Monday from 6:30 a.m. to 7:00 p.m. and Tuesday through Thursday from 6:30 a.m. to 6:00 p.m.

To reach the following, please dial 509.453.0374 and ask for the extension.

Admissions	5781
Campus Store	5777
Career Services	5776
Cashier/Student Accounts	5760
Disability Accommodations	5862
Enrollment Services	5750
Facilities & Safety	5790
Financial Aid	5757
Foundation	5728
Learning Resources/Exam Center	5862
Program Assistance	5743
Registration	5740
Title IX Coordinator	5751
Veterans Affairs	5761

Catalog Addendum | 2016-2017

PERRY TECHNICAL INSTITUTE

Updated November, 2016

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ENROLLMENT REQUIREMENTS

[Updated November 2016]

1. Completed application for enrollment submitted to Perry Technical Institute.
2. Pay the non-refundable \$25 exam fee and pass the entrance exam for the appropriate program.
3. Proof of satisfactory completion of high school equivalent education and an approved form of photo identification.
4. Payment of non-refundable \$100 registration fee to secure a starting date.
5. Signed enrollment contract and attendance at mandatory student orientation.

Applicants to the Automotive, Agricultural Equipment Technician, and HVAC/R programs must have a valid driver's license and must provide a three-year driving abstract. Precision Machining & Manufacturing applicants must interview with the Department Head. Medical Assistant Program applicants must successfully pass a criminal background check.

Perry enrolls students based on the date on which their enrollment requirements are complete. Students requesting to be placed on the waiting list will also be automatically enrolled for the next available start date. Students who request a change in enrollment date will be charged a non-refundable \$25 term change fee.

For more information regarding enrollment requirements and policies, please contact the Enrollment Office at 509-453-0374, Ext. 5750.

CANCELLATION & REFUND POLICY

[Updated November 2016]

The school will refund all money paid (less non-refundable exam and registration fees) if the applicant is not accepted. In rare instances where a starting class is cancelled by the school, the school will refund all monies paid, including exam and registration fees. The school will refund all money paid (less non-refundable exam and registration fees) if an applicant cancels after the day the enrollment contract is signed or an initial payment is made, as long as the applicant has not entered class.

If the applicant cancels after the fifth business day after signing the enrollment contract or making an initial payment, but prior to attending class, the school will retain a cancellation fee of \$100.00.

If training is terminated after the student enters class the school will retain 100% of all assessed fees with the exception of lab fees. The school will refund a pro-rated portion of tuition and lab fees based on the following schedule:

If the student completes training through:	The school refunds this amount to student:
0% - first 10%	90%
11% - 25%	75%
26% - 60%	50%
More than 60%	0%

The training completion percentage is calculated by dividing the number of scheduled class days through the date of student's termination by the total number of scheduled class days in the term.

program cost breakdown

[Updated November 2016]

All fees listed are mandatory and required for the completion of the program. Additional certifications and field trips are optional and costs will be assessed separately.

The State of Washington does not allow for tax-exemption of items purchased for use in the state such as books and tools for instruction received in the State of Washington.

COSTS OF ENROLLMENT FOR 12-MONTH PROGRAMS

	(SUM 2016) AET	(SUM 2016) AUTO	(FALL 2016) CST	(FALL 2016) MED	(SUM 2016) MOAC	(SUM 2016) PMM	(SUM 2016) WELD
Tuition	\$16,354.00	\$16,354.00	\$16,558.50	\$16,558.50	\$16,048.00	\$16,354.00	\$16,558.50
Lab Fees	\$200.00	\$240.00	\$600.00	\$200.00	\$120.00	\$400.00	\$2,000.00
Technology Fees	\$60.00	\$60.00	\$60.00	\$220.00	\$220.00	\$60.00	\$60.00
First Aid/CPR Fee	\$25.00	\$25.00	\$25.00	\$35.00	\$25.00	\$25.00	\$25.00
Student Accident Insurance Fees	\$88.00	\$88.00	\$88.00	\$88.00	\$88.00	\$88.00	\$88.00
Graduation Fee	\$54.00	\$54.00	\$54.00	\$54.00	\$54.00	\$54.00	\$54.00
Industry Certification Fees		\$15.00					
Total Tuition and Fees	\$16,781.00	\$16,836.00	\$17,385.50	\$17,155.50	\$16,555.00	\$16,981.00	\$18,785.50
Additional Estimated Costs							
Books (average)	\$175.00	\$150.00	\$250.00	\$1,230.00	\$3,825.00	\$800.00	\$235.00
Tools (average)	\$2,175.00	\$2,900.00	\$950.00	\$900.00	\$975.00	\$3,175.00	\$1,615.00
Materials (average)	\$250.00	\$225.00	\$70.00	\$215.00	\$175.00	\$15.00	\$75.00
Uniform (average)	\$125.00	\$125.00	\$135.00				
Trainee Card/Trainee Card Renewal FEE							
OSHA 10			\$25.00	\$25.00			\$25.00
CMA				\$115.00			
RMA				\$120.00			
Total Additional Estimated Costs	\$2,725.00	\$3,400.00	\$1,430.00	\$2,605.00	\$4,975.00	\$3,990.00	\$1,950.00
Total Cost of Enrollment	\$19,531.00	\$20,236.00	\$18,815.50	\$19,760.50	\$21,530.00	\$20,971.00	\$20,735.50

COSTS OF ENROLLMENT FOR 18-MONTH PROGRAMS

	(SUM 2016) BTA
Tuition	\$24,473.00
Lab Fees	\$150.00
Technology Fees	\$330.00
First Aid/CPR Fee	\$25.00
Student Accident Insurance Fees	\$132.00
Graduation Fee	\$54.00
Total Tuition and Fees	\$25,164.00
Additional Estimated Costs	
Books (average)	\$4,500.00
Tools (average)	\$975.00
Total Additional Estimated Costs	\$5,475.00
Total Cost of Enrollment	\$30,639.00

COSTS OF ENROLLMENT FOR TWO-YEAR PROGRAMS

	(SUM 2016) ELEC	(SUM 2016) HVAC/R	(SUM 2016) ITCS	(SUM 2016) INSTRU
Tuition	\$37,053.00	\$33,526.00	\$33,526.00	\$33,526.00
Lab Fees	\$480.00	\$400.00	\$360.00	\$160.00
Field Training Fees	\$600.00			
Technology Fees	\$120.00	\$120.00	\$120.00	\$120.00
First Aid/CPR Fee	\$25.00	\$25.00	\$25.00	\$25.00
First Aid/CPR Renewal Fee	\$20.00			
Student Accident Insurance Fees	\$176.00	\$176.00	\$176.00	\$176.00
Industry Certification Fees		\$35.00	\$70.00	
Graduation Fee	\$54.00	\$54.00	\$54.00	\$54.00
Total Tuition and Fees	\$38,528.00	\$34,336.00	\$34,331.00	\$34,061.00
Additional Estimated Costs				
Books (average)	\$1,355.00	\$550.00	\$910.00	\$1,100.00
Tools (average)	\$2,000.00	\$1,965.00	\$750.00	\$2,440.00
Materials (average)	\$125.00	\$160.00	\$1,360.00	\$375.00
Uniform (average)	\$220.00	\$115.00		
Trainee Card/Trainee Card Renewal FEE	\$93.50	\$93.50	\$93.50	
OSHA 10 RMA	\$25.00			
Total Additional Estimated Costs	\$3,818.50	\$2,883.50	\$3,113.50	\$3,915.00
Total Cost of Enrollment	\$42,346.50	\$37,219.50	\$37,444.50	\$37,976.00

academic information

ATTENDANCE POLICY

[Updated November 2016]

Attendance is mandatory. The scheduled start and end times are as follows:

AET	Monday – Thursday	7:30 a.m. – 4:00 p.m.
AUTO	Monday – Thursday	7:30 a.m. – 4:00 p.m.
BTA	Monday – Thursday	7:30 a.m. – 4:00 p.m.
CST	Monday – Thursday	7:00 a.m. – 3:30 p.m.
ELEC	Monday – Thursday	6:50 a.m. – 4:05 p.m.
HVAC/R	Monday – Thursday	7:15 a.m. – 4:10 p.m.
ITCS	Monday – Thursday	7:30 a.m. – 4:00 p.m.
INSTRU	Monday – Thursday	7:30 a.m. – 4:00 p.m.
MED	Monday – Thursday	7:30 a.m. – 4:15 p.m.
MOAC	Monday – Thursday	7:30 a.m. – 4:15 p.m.
PMM	Monday – Thursday	7:00 a.m. – 3:30 p.m.
WLD	Monday – Thursday	7:30 a.m. – 4:00 p.m.
Evening Classes	Monday – Friday	4:30 p.m.–10:00 p.m.
Variable Saturdays		9:00 a.m. – 5:00 p.m.

LETTERING SYSTEM

[Updated November 2016]

AET	Agricultural Equipment Technician
AU	Automotive Technology
BTA	Business Technology & Accounting
CST	Construction
ET	Electrical Technology
IN	Instrumentation & Industrial Automation Technology
ITC	Information Technology & Communication Systems
MA/PM	Precision Machining & Manufacturing
MED	Medical Assistant
MOA	Medical Office Administration & Coding
RE	Heating, Ventilation, Air Conditioning & Refrigeration Technology
WLD	Welding Technology

STANDARDS OF PROGRESS POLICY

[Updated November 2016]

GRADING

The progress or grading system by which a student will be evaluated is as follows:

Grade	GPA	Grade	GPA
A	4.0	C	2.0
A-	3.7	C-	1.7
B+	3.3	D+	1.3
B	3.0	D	1.0
B-	2.7	D-	0.7
C+	2.3	F	0
P/F	Pass/Fail	R	Repeated
I	Incomplete	CT	Credit Awarded by Testing
W	Withdrawal		

GRADUATION REQUIREMENTS

[Updated November 2016]

1. Completion of:
 - 67.0 credit hours for Agricultural Equipment Technician
 - 76.5 credit hours for Automotive Technology
 - 72.0 credit hours for Construction
 - 116.0 credit hours for Business Technology & Accounting
 - 172.5 credit hours for Electrical Technology
 - 169.0 credit hours for Heating, Ventilation, Air Conditioning & Refrigeration Technology
 - 160.5 credit hours for Information Technology & Communication Systems
 - 159.0 credit hours for Instrumentation & Industrial Automation Technology
 - 74.5 credit hours for Medical Assistant Program
 - 77.0 credit hours for Medical Office Administration & Coding
 - 75.0 credit hours for Precision Machining & Manufacturing
 - 74.5 credit hours for Welding Technology
2. Maintain satisfactory progress with a minimum grade point average of 2.0
3. Maintain satisfactory attendance record
4. Maintain proper student conduct
5. Full payment or satisfactory arrangement to fulfill all financial obligations

DRUG-FREE AND ALCOHOL-FREE CAMPUS AND WORKPLACE POLICY

[Updated November 2016]

In accordance with federal law, Perry Technical Institute has adopted this Drug-Free and Alcohol-Free Campus and Workplace Policy. Perry Technical Institute recognizes that students and employees have a right to a safe and secure campus and workplace and has implemented a drug and alcohol abuse prevention assistance program. Furthermore, Perry Technical Institute recognizes that employers who hire students from its programs demand employees who are drug free. PTI has adopted this policy to encourage students to develop a healthy lifestyle and to ensure that graduates are able to meet the demands of employers.

STANDARDS OF CONDUCT REGARDING DRUGS AND ALCOHOL

The unlawful manufacture, distribution, dispensing, possession or use of any federally banned substance; prescribed medical drugs that were unlawfully obtained or are being unlawfully or abusively used; drug-related paraphernalia; or being under the influence of controlled substances are prohibited at Perry Technical Institute, in the workplace, on campus, while engaging in school business, and at any activities sponsored by Perry Technical Institute. Returning or arriving to school after consuming drugs or alcohol is prohibited and will result in immediate dismissal.

Any student who is taking a drug or medication, whether or not prescribed by the student's physician, which may adversely affect that student's ability to perform work in a safe or productive manner, is required to report such use of medication to his/her instructor or Department Head. This includes drugs known or advertised as possibly affecting judgment, coordination, or any of the senses, including those which may cause drowsiness or dizziness. A doctor, dentist, or druggist will determine whether the student can remain at school and whether any work restrictions are necessary. The instructor may request such assistance as he/she desires in making the determination.

HEALTH RISKS

Short-term and long-term effects of drug use vary for the specific drugs, but the following nonexclusive list of health risks have been identified with the use and abuse of illicit drugs and alcohol: confusion, lack of coordination, memory loss, depression, fetal alcohol syndrome, problem pregnancies, sclerosis, circulatory problems, insomnia, heart failure, respiratory arrest, cardiac arrest, seizures, coma, anxiety, paranoia, irritability, fatigue, mental illness, and death.

INSTITUTE SANCTIONS

The Institute will conduct drug and/or alcohol testing under any of the following circumstances:

RANDOM TESTING: Students may be selected at random for drug and/or alcohol testing at any interval determined by the Institute. Any student who enrolls at Perry Technical Institute gives consent to random drug tests as an express condition of his or her enrollment and continued enrollment at Perry Technical Institute.

FOR-CAUSE TESTING: The Institute may ask a student to submit to a drug and/or alcohol test at any time it feels that the student may be under the influence of drugs or alcohol, including, but not limited to, the following circumstances: evidence of drugs or alcohol on or about the student's person or in the student's vicinity, unusual conduct on the student's part that suggests impairment or influence of drugs or alcohol, negative performance patterns, or excessive and unexplained absenteeism or tardiness.

POST-ACCIDENT TESTING: Any student involved in a training-related accident or injury under circumstances that suggest possible use or influence of drugs or alcohol in the accident or injury event will be asked to submit to a drug and/or alcohol test. "Involved in a training-related accident or injury" means not only the one who was or could have been injured, but also any student who potentially contributed to the accident or injury event in any way.

A student will be presumed under the influence of an illegal controlled substance upon any positive finding from a random drug test or reasonable cause drug test given under this policy. Drug testing will be by mass spectrometer test on Perry Technical Institute time and expense by a certified, creditable laboratory or medical facility prescribed by the Institute. Random drug test collection will be conducted on the Perry Technical Institute campus with a minimal disruption to class time. Failure to take a drug test, producing a cold sample, or producing a dilute test will result in a positive test result. A positive test result may result in the imposition of sanctions up to and including, but not limited to, suspension and/or dismissal. A student who has been deemed to be under-the-influence may not operate any vehicle on company property or a public roadway. If the student insists on driving, PTI administration will contact law enforcement and report the infraction.

If a student has violated the Drug-Free and Alcohol-Free Campus and Workplace Policy, the Institute may take any of the following actions:

If a student has violated the Drug-Free and Alcohol-Free Campus and Workplace Policy, the Institute may take any of the following actions:

- Disciplinary action including, but not limited to, suspension and/or dismissal, and/ or
- Require the student to satisfactorily participate in drug abuse assistance or rehabilitation program approved for such purpose by federal, state or local health, law enforcement, or other appropriate agency.

Any student convicted of any criminal drug statute violation occurring in the workplace, during school hours, or while engaged in Institute business, must notify the President or Dean of Education no later than five days after such conviction.

LEGAL SANCTIONS

In addition to sanctions imposed by the Institute, drug and/or alcohol violations may be referred to the appropriate external authorities. This may result in arrest and conviction under applicable criminal laws of the United States, the State of Washington, or local municipalities. Violations as specified above may result in penalties ranging from fines through imprisonment.

AVAILABLE ASSISTANCE TREATMENT PROGRAMS

Alcoholism and drug dependency are defined as illnesses that may interfere with a student's ability to perform assigned work satisfactorily or that adversely affect classroom behavior. Students are encouraged to voluntarily seek expert assistance for alcoholism, alcohol abuse, or drug dependency. Assistance is available through a variety of professional resources in the community.

Community resources include:

Yakima Valley Farm Workers Clinic - Behavioral Health Services	509.453.1344
Department of Social & Health Services	877.301.4557
Comprehensive Healthcare	509.248.1200
Neighborhood Health Services	509.454.4143
Yakima Health District	509.575.4040
Yakima Valley Vet Center	509.457.2736
Merit Resources	509.469.9366
Sundown M Ranch	509.457.0990
Barth Clinic	509.457.5653
Triumph Treatment Services	509.248.1800

SMOKING/TOBACCO PRODUCTS

Due to the acknowledged hazards from exposure to environmental tobacco smoke, it is the policy of Perry Technical Institute to provide a tobacco-free environment for all students, employees, and visitors. Smoking and other forms of tobacco use are permitted in designated areas only. The designated areas are located at the northeast and northwest ends of campus and the southwest corner of the Medical Annex. This policy covers the smoking of any tobacco product, electronic cigarettes and the use of smokeless or "spit" tobacco.

electrical technology

[Updated November 2016]

Perry Technical Institute’s Electrical Technology program offers students a diversified curriculum that guides them through the process of becoming electricians.

Students are introduced to the generation and distribution of AC/DC electricity, wiring methods for residential, commercial and industrial motor controls, as well as utilizing green technologies such as solar. During classroom, lab and fieldwork experiences, students gain valuable theory while incorporating current NEC codes and WAC/RCW rules, laws, and procedures with hands-on application.

The Washington State Department of Labor & Industries may recognize up to two years of training received from Perry’s Electrical Technology program toward the (01) journey level certification. Graduates must accumulate additional hours of industrial/commercial electrical work before applying to take their (01) journey level examination with the State of Washington.

The goal for students who successfully complete this program is entry-level employment as third-year electrical trainees. The two largest groups of potential employers are electrical construction contractors and electrical departments in manufacturing industries.

The Electrical Technology program is 24 months in length (eight quarters). The student will earn 172.5 credit hours which are 3,000 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The classroom student to instructor ratio for the Electrical Technology program is 22:1. The student to (01) journey level electrician ratio when performing fieldwork for the school is 4:1. When performing fieldwork for a company other than Perry Technical Institute, the student to (01) journey level electrician ratio is 1:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	ET 110	Safety	36	2.5
	ET 111	NEC/WAC/RCW	109	7.5
	ET 112	Electrical Theory I	120	8.5
	ET 113L	Lab & Shop Projects	<u>110</u>	<u>5.5</u>
			375	24.0
Quarter 2	ET 120	Safety	11	0.5
	ET 121	NEC	46	3.0
	ET 122	Electrical Theory II	260	18.0
	ET 123L	Lab & Shop Projects	<u>58</u>	<u>2.5</u>
			375	24.0
Quarter 3	ET 130	Safety	11	0.5
	ET 131	NEC	50	3.5
	ET 132	Industrial I	154	10.5
	ET 133L	Lab & Shop Projects	<u>160</u>	<u>8.0</u>
			375	22.5
Quarter 4	ET 140	Safety	11	0.5
	ET 141	NEC	14	0.5
	ET 142	Industrial II	184	12.0
	ET 143L	Lab & Shop Projects	<u>166</u>	<u>8.0</u>
			375	21.0
Quarter 5	ET 210	Safety	11	0.5
	ET 211	NEC/WAC/RCW	164	11.5
	ET 212	Industrial III	110	7.5
	ET 213L	Lab & Shop Projects	<u>90</u>	<u>4.5</u>
			375	24.0
Quarter 6	ET 220	Safety	11	0.5
	ET 221	NEC/Utility	100	7.0
	ET 222	Construction I	129	9.0
	ET 223L	Lab & Shop Projects	<u>135</u>	<u>6.5</u>
			375	23.0

(cont. on next page)

Quarter 7	ET 230	Safety	11	0.5
	ET 231	Career Planning	20	1.0
	ET 232	Solid State Electrical Fundamentals	105	7.0
	ET 233L	Lab & Shop Projects	115	5.5
	ET 234L	Construction II	<u>124</u>	<u>6.0</u>
			375	20.0
Quarter 8	ET 240E	Construction III/Externship	<u>375</u>	<u>14.0</u>
		Program Totals	3,000	172.5

ELECTRICAL TECHNOLOGY COURSE DESCRIPTIONS

ET 110 Safety

This course will provide a basic understanding of electricity and how to prevent common electrical/workplace hazards. Students will be introduced to safety requirements for campus, classroom, lab, and shop environments including the proper use of tools/equipment, and safety procedures. Weekly safety meetings are held and include safety demonstrations showing the correct way to use tools, ladders, and other equipment needed in the electrical trade. A first aid and CPR certificate is awarded after successful completion of the CPR class.

ET 111 NEC/WAC/RCW

While learning to navigate the National Electrical Code (NEC), students will be introduced to minimum standards for safe installation, maintenance and repair of electrical systems. This course will also cover the Washington Administrative Codes (WAC) that supersede the NEC and Revised Code of Washington (RCW) pertaining to electricians.

ET 112 Electrical Theory I

Beginning with atomic structures, this course will introduce the basic theory of electricity along with solving for voltage, current, resistance and wattage in different circuit configurations using Ohm's and Watt's laws. Students will also identify and draw single-phase and three-phase systems used in industry.

ET 113L Lab & Shop Projects

Starting with proper drawing of schematics, students will practice safe and practical application of classroom instruction through wiring residential switch and receptacle labs. Students will also demonstrate proper use of personal protective equipment and tools to install and troubleshoot conductors, switches, receptacles and fixture wiring.

ET 120 Safety

Building on their electrical theory, students will learn safety relating to energy and various test equipment. The Electrical Department holds weekly safety meetings that include safety demonstrations showing the correct way to use tools, ladders, and other equipment needed in the electrical trade.

ET 121 NEC

This course will review and build upon the code previously covered in the program.

ET 122 Electrical Theory II

This course will examine direct current motors and generators beginning with magnetic fields surrounding conductors and coils. From there, students will move into the generation of alternating current and reactive components such as inductors and capacitors in RLC circuits. Students will learn the theory of transformers, conversions of power and various semiconductor components.

ET 123L Lab & Shop Projects

Students will use electrical components and breadboard to assemble circuits and verify electrical quantities determined in classroom calculations.

ET 130 Safety

Students will explore safety in an industrial setting, covering topics such as proper meter use, personal protective equipment and lock-out, tag-out, try-out. Weekly safety meetings are held and include safety demonstrations showing the correct way to use tools, ladders, and other equipment needed in the electrical trade.

ET 131 NEC

This course will cover NEC requirements for motor circuits. Students will determine sizes of conductors, overloads, overcurrent protection and disconnecting means for motor circuits. Previously covered NEC will be added to these calculations such as proper grounding and bonding.

ET 132 Industrial I

Industrial I introduces the principles of two and three-wire control for motor control circuits. The course will identify various control components such as relays, mag-starters, timers, sensors, along with the symbols and ladder diagrams needed to make a successful control installation. Students will learn the theory and operation of AC motors along with proper wiring connections for different voltages and troubleshooting of motors and motor control circuits.

ET 133L Lab & Shop Projects

Using ladder diagrams designed in class, students install the wiring to motor control lab stations for various applications and processes. After completion of the lab, the instructor will bug the station and students will apply troubleshooting skills learned in the classroom to locate and repair the malfunctioning process.

ET 140 Safety

Students will explore safety in an industrial setting such as proper meter use, personal protective equipment and lock-out, tag-out, try-out. Weekly safety meetings are held and include safety demonstrations showing the correct way to use tools, ladders, and other equipment needed in the electrical trade.

ET 141 NEC

This course will examine and review previously covered NEC articles.

ET 142 Industrial II

This course will build upon the material introduced in Industrial I with the introduction of programmable logic controllers (PLCs). Students will learn the parts of a PLC and how to setup communication with the computer along with constructing programs in the PLC software. Students will also examine several digital numbering systems and conversions along with troubleshooting.

ET 143L Lab & Shop Projects

Students will develop, use, and create programs and use logical diagrams to control the desired process by analyzing inputs and updating outputs and by monitoring devices and troubleshooting the written program.

ET 210 Safety

Students will explore safety in an industrial setting such as proper meter use, personal protective equipment and lock-out, tag-out, try-out. The Electrical Department holds weekly safety meetings that include a safety demonstration to show the correct way to use tools, ladders, and other equipment needed in the electrical trade.

ET 211 NEC/WAC/RCW

This course will cover how to calculate the ampacity of service, feeder and branch circuit conductors, and the ampacity rating of the panels they supply. Students will also revisit the Washington Administrative Code (WAC) and Revised Code of Washington (RCW) requirements for the electrical industry including, but not limited to: electrical industry scopes of work, licensing qualifications, exams, fees, penalties, types of certifications, and continuing education requirements.

ET 212 Industrial III

This course will outline the fundamentals and functions of variable frequency drives (VFDs) and interpreting manufacturer manuals. Students will troubleshoot poor power quality and harmonics along with learning skills to correct these symptoms through the use of power quality analyzers.

ET 213L Lab & Shop Projects

Students will use technical manuals to wire variable frequency drives to change the speed of AC motors through the use of various analog components. They will also monitor the power quality on various circuits through the use of analyzers and

size capacitors to correct poor power factor.

ET 220 Safety

Students will distinguish safety hazards on a construction jobsite. The Electrical Department holds weekly safety meetings that include a safety demonstration indicating the correct way to use tools, ladders, and other equipment needed in the electrical trade.

ET 221 NEC/Utility

This course will discuss the code requirements for wiring a dwelling unit, photovoltaic system and cover articles relating to commercial wiring methods. The minimum standards of outdoor branch circuits and feeders, services, grounding and bonding, hazardous locations and pools will also be covered. Students will learn the local utility requirements for electrical installations.

ET 222 Construction I

The course will introduce terms, symbols, layout, organization, and structure of plans that are used for residential, commercial, and industrial buildings. Students will learn how to understand and interpret prints for identification of code violations, conflicts of space, and safety issues. Students will be trained to use hand, hydraulic, and PVC conduit benders. Also covered are solar photovoltaic systems including the array circuit, inverter, and controller.

ET 223L Lab & Shop Projects

Students will practice applied wiring techniques in various hands-on exercises and labs including, but not limited to: conduit bending, switch connections, non-metallic cable, metallic cable, wire pulling, panel, box and device installation, and connections.

ET 230 Safety

Students will distinguish safety hazards on a construction jobsite and the safe handling of electronics. The Electrical Department holds weekly safety meetings that include a safety demonstration showing the correct way to use tools, ladders, and other equipment needed in the electrical trade.

ET 231 Career Planning

Students will prepare for an effective career search by learning to create a resume, practicing interviewing skills, and reviewing the job application process. This course will also include a comprehensive review of material related to career opportunities.

ET 232 Solid State Electronic Fundamentals

Students will build a foundation of solid state electronics, printed circuit boards, soldering, and troubleshooting electronics.

ET 233L Lab & Shop Projects

Students will have the opportunity to apply the use of training equipment including oscilloscopes, signal generators, and DC power supplies, used with solid state components to determine how and why they operate. Students will also practice soldering for construction and repair of circuit boards.

ET 234L Construction II

Students will take part in on-the-job training projects doing hands-on electrical wiring installations in residential and

commercial buildings. Students are required to have 100% supervision by a (01) journey level electrician employed by Perry Technical Institute while performing these electrical installations with a ratio of not more than four students to one (01) journey level electrician. All work will comply with the NEC, WAC and RCWs and shall be inspected by the Department of Labor & Industries. In addition to holding a current (01) journey level electrician certificate, the (01) journey level electricians must also have training in instruction and meet the minimum requirements of a classroom instructor. Journey level electricians shall not engage in any of the electrical installations.

ET 240E Construction III/Externship

Students will complete on-the-job training projects doing hands-on electrical wiring installations in residential and commercial buildings. All trainee electrical installations are supervised by an (01) journey level electrician and inspected by the Department of Labor & Industries. Students who have a job offer as an electrician may leave the program and work in the field under a training extern agreement with Perry Technical Institute, the employer, and the student. Completion of an externship packet is required including a WAC and RCW compliance form to ensure students are supervised 100% of the time by an (01) journey level electrician at a ratio of no more than one student to one (01) journey level electrician. If the student does not obtain an externship, completion of an electrical capstone project is required.

Electrical Technology Book and Tool List

The book and tool list for students in the Electrical Technology program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 15.

Electrical Technology Equipment List

Students in the Electrical Technology program utilize the following equipment:

- Computers
- Electrical hand tools
- Motor control labs
- Single- and three-phase motors
- PLC simulators
- PLC labs
- Transformer connection labs
- Power factor correction labs
- Conduit bending equipment
- Oscilloscopes and related electronic equipment

heating, ventilation, air conditioning & refrigeration technology

[Updated November 2016]

Perry Technical Institute's Heating, Ventilation, Air Conditioning & Refrigeration Technology program covers all aspects of the field, from refrigeration fundamentals to direct digital control and energy management systems. Students learn the curriculum through classroom and extensive hands-on training in lab-related instruction.

Perry Technical Institute's HVAC/R program is approved by the Washington State Department of Labor & Industries as a 06A HVAC/R Specialty Electrical Training program. Graduates may be credited with up to one year (or 2,000 hours) towards the two years (or 4,000 hours) required by the State of Washington to be eligible to take the certification exam for the 06A HVAC/R Specialty Electrical License.

The program prepares students to gain industry certifications in several areas, giving them competitive advantages in the employment market. Some of the technician certifications offered include Universal R-410A Safety, OSHA Safety, EPA 608 Refrigerant, EPA 609 Refrigerant, and Green Mechanical Systems.

Classroom and shop training prepares students to enter the HVAC/R industry as qualified entry-level technicians.

The HVAC/R Technology program is 24 months in length (eight quarters). The student may earn 169 credit hours which are 2,872 clock hours. Labor & Industries does not separate break times and credits 2,000 hours towards classroom participation. Tuition is payable on a quarterly basis. There are four quarters in an academic year. Quarter three and four course offerings may be offered in a sequence other than listed to accommodate seasonal working conditions.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Heating, Ventilation, Air Conditioning & Refrigeration Technology program is 22:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	RE 110	Refrigeration Fundamentals	259	18.0
	RE 111L	Lab & Shop Projects	<u>100</u>	<u>5.0</u>
			359	23.0
Quarter 2	RE 120	Refrigeration & Electric Forced Air Heating	219	15.5
	RE 121L	Lab & Shop Projects	<u>140</u>	<u>7.0</u>
			359	22.5
Quarter 3	RE 130	Residential & Light Commercial HVAC I	229	16.0
	RE 131L	Lab & Shop Projects	<u>130</u>	<u>6.5</u>
			359	22.5
Quarter 4	RE 140	Residential & Light Commercial HVAC II	209	14.5
	RE 141L	Lab & Shop Projects	<u>150</u>	<u>7.5</u>
			359	22.0
Quarter 5	RE 210	Commercial Refrigeration I	218	15.0
	RE 211L	Lab & Shop Projects	<u>141</u>	<u>7.0</u>
			359	22.0
Quarter 6	RE 220	Commercial Refrigeration II	228	16.0
	RE 221L	Lab & Shop Projects	<u>131</u>	<u>6.5</u>
			359	22.5
Quarter 7	RE 230	Industrial Heating & Cooling Systems I	261	18.0
	RE 231L	Lab & Shop Projects	<u>98</u>	<u>4.5</u>
			359	22.5
Quarter 8	RE 243E	Externship	359	12.0
		Program Totals	2,872	169.0

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION TECHNOLOGY COURSE DESCRIPTIONS

First Aid

First aid and CPR training is contracted with an outside agency. Current certification is required.

RE 110 Refrigeration Fundamentals

Tools, procedures, and equipment are covered/demonstrated in both the classroom and lab environment. Mathematics is used for practical electrical theory and application of series and parallel electrical circuits as found in the HVAC/R trade. Emphasis is placed on the understanding and application of the four main components of a mechanical compression refrigeration system, each of their functions within the system including the pressures and temperatures associated with each component.

RE 111L Lab & Shop Projects

Students develop the necessary skills for the application and use of electrical and HVAC/R tools and equipment. Students learn the required skills and techniques for the proper joining of copper to copper and copper to steel tubing by use of oxyacetylene torches. Students begin practical application of refrigeration operation and troubleshooting on residential refrigerators and freezers.

RE 120 Refrigeration & Electric Forced Air Heating

Studies expand on the four main components of the refrigeration system. This section of the program also introduces central forced air electric heating systems. Students continue reading and using schematic and ladder diagrams and learn to develop their own electrical diagrams to meet specific operations.

RE 121L Lab & Shop Projects

Lab time includes an emphasis on electrical measurements for troubleshooting and hands-on wiring of equipment. Students complete the wiring and operation of relays, capacitors, single and multi-speed single-phase fractional horsepower motors, heaters, low-voltage heat/cool thermostats, compressors, and fan motors. Time is used for wiring, troubleshooting, and maintaining controls as well as actual operation and troubleshooting of electric furnaces and their controls.

RE 130 Residential & Light Commercial HVAC I

Students review shop safety procedures and are introduced to fall protection and ladder safety. Safe handling of refrigerants and proper HVAC system charging are covered, including refrigerant recovery and applications of R-22, HFC refrigerants R-410A, and R-422B. Students learn the fundamentals of humidifiers and air filtration, including all types of disposable air filters to state-of-the-art electronic air cleaners. Students learn to interpret both ladder and pictorial wiring diagrams. All types of single-phase motors are discussed. The curriculum covers both packaged and split systems of residential and light commercial HVAC equipment.

RE 131L Lab & Shop Projects

This section emphasizes the application of control strategies used to wire and operate HVAC equipment. Students develop all types of wiring diagrams utilizing actual HVAC units. Students are exposed to systems such as heat pumps, oil, gas, and electric forced air HVAC systems. Typical lab projects include tasks such as soldering, steel pipe threading, wiring, and proper refrigerant charging of A/C units. Students are introduced to basic sheet metal fabrication concepts including several sheet metal projects using not only sheet metal

hand tools, but the heavier shop fabrication equipment associated with the fabrication of HVAC duct systems.

RE 140 Residential & Light Commercial HVAC II

In this section, students study heating systems that include fossil fuel units such as natural, LP gas units, oil heating systems, electric heating, and heat pump systems. The section covers the combustion and venting process as it relates to fossil fuel heating systems. The duct design process is introduced. Students learn to apply control strategies covered in the classroom to wire and operate several types of HVAC equipment. Residential load calculations are introduced. Students learn the basics of air distribution and balancing residential and light commercial HVAC air delivery systems. The curriculum introduces several types of air side components such as grills, registers, and diffusers as well as equipment typically used for air balancing.

RE 141L Lab & Shop Projects

This course helps students apply the knowledge learned in the classroom to operational HVAC equipment. All laboratory/shop tasks will be performed on functional oil furnaces. The scope of tasks involves electrical wiring, mechanical operation, and combustion analysis of oil heating systems. The study of oil heating systems focuses on high pressure, gun-type oil burners. The primary control systems include both stack and cadmium cell types. Students complete several lab projects including wiring and combustion analysis on natural gas furnaces using both chemical and digital analysis tools.

RE 210 Commercial Refrigeration I

Students begin studying and troubleshooting commercial systems and components. The course covers electrical theory, control circuits, and wiring schematics. RCW 19.28, WAC 29646A, WAC 296401B, and articles from the NEC are also covered.

RE 211L Lab & Shop Projects

This course provides hands-on evaluation and repair of a wide variety of live refrigeration equipment. The curriculum tests the student's ability to set, adjust, and evaluate a wide variety of refrigerant and electrical controls under different operating conditions. Installation, setting, and proper wiring methods as specified by NEC are covered for a variety of control applications.

RE 220 Commercial Refrigeration II

The curriculum covers advanced commercial systems and components, troubleshooting commercial systems, electrical theory, control circuits, and wiring schematics. RCW 19.28, WAC 296-401B, and articles from the NEC are also covered.

RE 221L Lab & Shop Projects

This course provides hands-on evaluation and repair of a wide variety of live refrigeration equipment. The curriculum tests the student's ability to set, adjust, and evaluate a variety of refrigerant and electrical controls under different operating conditions. Installation, setting, and proper wiring methods as specified by NEC are covered for a number of control applications.

RE 230 Industrial Heating & Cooling Systems I

Students are introduced to industrial heating and cooling systems and components, troubleshooting industrial systems, electrical theory, control circuits, wiring schematics, and piping diagrams. This includes NEC compliance, using chapters 2, 3, and 9.

RE 231L Lab & Shop Projects

Lab time gives students the opportunity to apply the skills they have learned. Training equipment, lab projects, computer simulators, and on-site service work allow the student to receive hands-on training to reinforce classroom instruction.

RE 243E Externship

Qualifying students have the option of obtaining practical experience in an HVAC/R environment. All trainee HVAC/R installations are supervised by an HVAC/R 06 journeyman. Students who have a job offer as an HVAC/R technician may leave the program and work in the field under a training extern agreement with Perry Technical Institute, the employer, and the student. Completion of an externship packet is required. Externships must be approved by the Department Head. If the student does not obtain an externship, completion of the HVAC/R capstone project is required.

Heating, Ventilation, Air Conditioning, & Refrigeration Technology Book and Tool List

The book and tool list for students in the Heating, Ventilation, Air Conditioning & Refrigeration Technology program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 15.

Heating, Ventilation, Air Conditioning, & Refrigeration Technology Equipment List

Students in the HVAC/R program utilize the following equipment:

- Computers
- Digital multi-meter
- Digital clamp-on ammeter
- Digital temperature meter
- Elenco oscilloscopes
- Ultrasonic refrigerant leak detection
- Thermistor vacuum gauge
- Digital duct leakage monitor
- Digital refrigerant scale
- Oxyacetylene torch set
- Vacuum pump
- Refrigerant recovery equipment
- Refrigerant gage manifold
- Arc welder
- Wire feed welder

information technology & communication systems

[Updated November 2016]

Perry Technical Institute's Information Technology & Communication Systems program teaches the theories and skills needed to work in all areas of communications technology – electronics theory, personal computers, wireless communications, telephone systems, transmission equipment, alarm systems, and data networking and administration.

The program is divided into four six-month sections of curriculum and combines classroom and lab projects to provide students with the proper balance of theory and hands-on experience.

Students prepare to earn numerous industry certifications including CompTIA, Cisco, and FCC. The program is approved by the State of Washington as a two-year Limited Energy (06) Specialty Electrical training program. Graduates may be credited with up to one year towards the two years required to be eligible to take the certification exam for the Limited Energy (06) Specialty Electrical License. Throughout the program, students prepare themselves for the workforce. Resume writing, interview skills, and documentation of their experience at Perry Technical Institute in a portfolio enable the student to conduct an effective job search.

The goal of Perry Technical Institute's Information Technology & Communication Systems program is to provide graduates with the wide variety of skills necessary to obtain entry-level employment and achieve success in their careers.

The Information Technology & Communication Systems program is 24 months in length (eight quarters). The student will earn 160.5 credit hours which are 2,688 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Information Technology & Communication Systems program is 24:1.

PROGRAM OUTLINE

			Clock Hours	Credit Hours
Quarter 1	ITC 110	Applied Mathematics for Electronics	110	7.0
	ITC 111	Electronics: Fundamentals I	<u>226</u>	<u>14.5</u>
			336	21.5
Quarter 2	ITC 120	Electronics: Fundamentals II	156	9.5
	ITC 121	Wireless Technology	<u>180</u>	<u>11.5</u>
			336	21.0
Quarter 3	ITC 130	Computer Hardware Fundamentals	173	11.0
	ITC 131	Computer Software Fundamentals	<u>163</u>	<u>10.0</u>
			336	21.0
Quarter 4	ITC 143	Network Server Operating Systems	210	13.0
	ITC 144	Network Server OS Practicum	<u>126</u>	<u>8.0</u>
			336	21.0
Quarter 5	ITC 210	Cisco Networking I	276	15.0
	ITC 212	Cisco Networking II	<u>60</u>	<u>3.5</u>
			336	18.5
Quarter 6	ITC 220	Cisco Networking II (continued)	216	12.5
	ITC 222	Cisco Networking III	<u>120</u>	<u>7.0</u>
			336	19.5
Quarter 7	ITC 230	Basic Telephony & Cabling Standards	128	8.0
	ITC 231	Voice Communication Systems I	188	12.0
	ITC 232	Career Planning	<u>20</u>	<u>1.0</u>
		336	21.0	
Quarter 8	ITC 240	Voice Communication Systems II	112	6.5
	ITC 241	Limited Energy	104	6.5
	ITC 242E	Externship	<u>120</u>	<u>4.0</u>
			336	17.0
		Program Totals	2,688	160.5

INFORMATION TECHNOLOGY & COMMUNICATION SYSTEMS COURSE DESCRIPTIONS

ITC 110 Applied Mathematics for Electronics

Mathematics required to evaluate and understand the electronic circuits and equipment which will be covered.

ITC 111 Electronics: Fundamentals I

Basic electronic components and DC circuit operation are introduced including test equipment and tools. DC network analysis, AC circuits, and their effect on reactive components are covered as well. Application of the technical knowledge acquired in the classroom to practical electronic circuits in a lab environment. The concepts of teamwork, analytical problem solving, and troubleshooting are introduced. The students begin preparing a portfolio, documenting their experiences and training through the program.

ITC 120 Electronics: Fundamentals II

Advanced DC and AC electronics, transistors, and integrated circuit operational amplifiers. Boolean algebra and binary arithmetic provide the basis for the understanding of digital logic circuits utilizing logic gates and combinational logic. Application of the technical knowledge acquired in the classroom to practical power supplies, transistor amplifiers and switches, and operational amplifier circuits, digital circuits in a lab environment.

ITC 121 Wireless Technology

Radio frequency theory, noise, bandwidth, analog and digital modulators. RF transmission and reception, propagation, transmission lines, and antenna systems are covered. Lab projects enable the application of the technical knowledge acquired in the classroom to RF modulators, radio receivers, antenna systems, and transmitters.

ITC 130 Computer Hardware Fundamentals

Theory, operation, assembly, and maintenance of personal computer hardware and peripheral devices, in a hands-on lab environment. Preparation for the CompTIA A+ certification. Hardware installation and troubleshooting is accomplished which allows the student to apply the technical knowledge acquired in the classroom.

ITC 131 Computer Software Fundamentals

Operation of PC operating systems, including: software installation, management, utilities, and troubleshooting in a lab environment. Students experience workstation configuration using different operating systems as well as virtualization software teaching students the skills necessary to troubleshoot a variety of computer systems.

ITC 143 Network Server Operating Systems

Installation and configuration of Windows Server. Configuration of virtual machines and networks, DHCP and DNS services, domain controllers and Active Directory along with group policy and security policies. Preparation for the Microsoft Server certification. Technical knowledge acquired in the classroom will be utilized in a lab setting. Installing, configuring and troubleshooting a Windows server and the utilities involved.

ITC 144 Network Server OS Practicum

Continuation of Windows Server implementation. Principles, design, implementation, and administration of the latest industry network architectures and topologies. Virtualized network environments to provide service and applications to end users are covered, as well as network storage and cloud infrastructure. Application of this knowledge will be utilized in a lab environment.

ITC 210 Cisco Networking I

Intro to Networking—This course introduces the architecture, structure, functions, components and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

ITC 212 Cisco Networking II

Routing and Switching—This course describes the architecture, components and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both 1Pv4 and 1Pv6 networks.

ITC 220 Cisco Networking II (continued)

ITC 222 Cisco Networking III

Scaling Networks—This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP.

ITC 230 Basic Telephony & Cabling Standards

Prepares the student to enter the telephone industry. Cabling installation, telephone sets, and local loop are covered. The history of the industry and industry terms are presented. National Electrical Code and industry cabling and equipment standards are covered. Data cable installer certificate obtained through industry provided certification. (Certification may occur in quarter 7 or 8). Lab exercises allow students hands-on experience with industry standard tools and practice in the installation and testing of copper and fiber optic cable systems for voice and data networks.

ITC 231 Voice Communications Systems I

Installation, programming, and troubleshooting of business telephone systems including key systems, hybrids, and an introduction to PBX switching equipment in a simulated business environment. Transmission lines and long distance networks, which tie telephone switches together, are covered. Customer service concepts are presented to enable the student to communicate effectively with the customer. Lab exercises allow students hands-on experience and comprehension in the installation, programming, and maintenance of various business communication systems.

ITC 232 Career Planning

Designed to prepare the student to mount an effective job search. Resume preparation, interview skills, and the job application process are covered as the portfolio preparation process is completed.

ITC 240 Voice Communication Systems II

A continuation of quarter 7 Voice Communication Systems. The convergence of voice and data, through the development of Computer-Telephone Integration (CTI) and Voice over Internet (VoIP) concepts. Installation, programming, and troubleshooting of PBX and VoIP equipment in a simulated business environment is accomplished. Voice mail is integrated into the system and the

programming of system features is accomplished. Customer service concepts are presented to enable the student to communicate effectively with the customer. Lab exercises allow students hands-on experience and comprehension in the installation, programming, and maintenance of various business communication systems.

ITC 241 Limited Energy

Limited Energy Systems: Alarms and amplified sound. Fire alarm system installation, programming, and troubleshooting are covered. Proper installation practices are covered in accordance with the National Electrical Code and NFPA 72: National Fire Alarm Code. Amplified sound and speaker systems, including 70V centralized systems and intercom systems are covered. Introduction to Power over Ethernet (PoE) cable and device installation will also be covered in accordance with the Washington State Limited Energy System guidelines. Lab exercises allow students hands-on experience and comprehension in the installation, programming, and maintenance of various limited energy systems.

ITC 242E Externship

Qualifying students have the option of obtaining practical experience in a workplace environment in lieu of the last month of training on campus. Externships must relate to the training that would occur in the last quarter of ITCS and must be approved by the Department Head. If the student does not obtain an externship, he/she will be responsible for completing an on-campus capstone project.

Information Technology & Communication Systems Book and Tool List

The book and tool list for students in the Information Technology & Communication Systems program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to page 15.

Information Technology & Communication Systems Equipment List

Students in the Information Technology & Communication Systems program utilize the following equipment:

Personal computers and servers
Cisco routers
Network switches
Wireless access points
Fluke EtherScope
Fluke network analyzer, cable certifiers, and testers
Digital multi-meters
Oscilloscopes, signal generator, and power supplies
Spectrum analyzers
Cell site test sets
AM/FM signal generators/modulators
Antenna system testers
In-line watt meters
Telephone key system, PBX, and VoIP system
Voice mail system
PA systems 24V and 70V
Fire alarm system

board of trustees

[Updated November 2016]

Terry Schmalz
Curtis King
Jake Jundt

administration

Christine Coté, President
B.A. – Central Washington University

Nathan Hull, Dean of Education
B.S. – Central Washington University
B.A. – Eastern Washington University

Jason Lamiquiz, Associate Dean of Education
A.A.S. – Yakima Valley Community College

Jill Cope, Registrar
B.A. – Minot State University

Josh Phillips, Director of Information Technology
B.S. – City University
Certificate – Telecommunications, Perry Technical Institute

Erin Fishburn, Foundation/Public Relations Director
B.S. – Portland State University
M.B.A. – Marylhurst University

Nicole Trammell Woolpert, Director of Student Enrollment & Marketing
B.S. – Central Washington University
Certificate – Graphics, Perry Technical Institute

Carol Helms, Director of HR for Faculty & Staff Development
A.A. – Yakima Valley Community College

Deann Bergquist, Director of HR for Payroll & Benefits
B.A. – Central Washington University
B.S. – Central Washington University
Professional Human Resources Certification

Mayra Fernandez, Director of Financial Aid
A.A.S. – Yakima Valley Community College

Chelsea Snodgrass, Director of Career Services
A.A. – Yakima Valley Community College
B.S. – Central Washington University

Kaila Lockbeam, Director of Facilities

Emily Jameson Dubow, Director of Institutional Effectiveness
B.A. – Trinity Western University
M.A. – Eastern University

faculty

AGRICULTURAL EQUIPMENT TECHNICIAN

Nick Romero, Department Head
A.O.S. – Universal Technical Institute

Everardo Torres, Lab Coordinator
Certificate – Automotive, Perry Technical Institute

AUTOMOTIVE TECHNOLOGY

Dusty Morrill, Department Head

Isaac Espinoza, Associate Instructor

Michael Powell, Instructor
Certificate – Automotive, Perry Technical Institute

Ken Waggener, Instructor
Certificate – Automotive, Perry Technical Institute

BUSINESS TECHNOLOGY & ACCOUNTING

Valerie Ryan, Department Head
B.S. – Central Washington University
M.S. – Central Washington University

Mardell Newhouse
B.A. – University of Washington
M.B.A. – Western Governors University

CONSTRUCTION

Darin Peters, Department Head

ELECTRICAL TECHNOLOGY

Michael Yusi, Department Head
Certificate – Electrical, Perry Technical Institute

Forrest Buchmann, Instructor
Certificate – Electrical, Perry Technical Institute

Jerome Cobane, Electrical Field Instructor
Certificate – Electrical, Perry Technical Institute

Ray Cyr, Instructor
Certificate – Electrical, Perry Technical Institute

Charles Espinoza, Instructor
Certificate – Electrical, Perry Technical Institute

Dan Lovestrand, Electrical Field Instructor
Certificate – Perry Technical Institute

Adam Rieker, Instructor
Certificate – Electrical, Perry Technical Institute

Gary Shipley, Electrical Field Instructor
Certificate – Electrical, Perry Technical Institute

Matthew Shipley, Instructor

Certificate – Electrical, Perry Technical Institute

Mike Tucker, Instructor

Certificate – Electrical, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Ron Zike, Instructor**HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION TECHNOLOGY****Dan Henderson, Department Head**

Certificate – HVAC/R, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Ignacio Lopez, Instructor

Certificate – HVAC/R, Perry Technical Institute

David Juarez, Instructor

Certificate – HVAC/R, Perry Technical Institute

INFORMATION TECHNOLOGY & COMMUNICATION SYSTEMS**Andy Fischer, Department Head**

Certificate – Telecommunications, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Jeanine Benoit, Instructor

Certificate – Telecommunications, Perry Technical Institute

Francisco Magana, Instructor

Certificate – Telecommunications, Perry Technical Institute
A.A.S. – Yakima Valley Community College

Matt Sund, Instructor

Certificate – Telecommunications, Perry Technical Institute
B.A. – Central Washington University

INSTRUMENTATION & INDUSTRIAL AUTOMATION TECHNOLOGY**Tony Nirk, Department Head**

Certificate – Instrumentation, Perry Technical Institute
A.A.S. – Pierce College Fort Steilacoom

Larry Dagdagan, Instructor

Certificate – Instrumentation, Perry Technical Institute

Casey Floren, Instructor

Certificate – Instrumentation, Perry Technical Institute

Patrick Jones, Instructor

Certificate – Instrumentation, Perry Technical Institute

John Koenes, Instructor

Certificate – Instrumentation, Perry Technical Institute

Doug Oswald, Instructor

Certificate – Instrumentation, Perry Technical Institute

Gerry Ries, Instructor

Certificate – Instrumentation, Perry Technical Institute

Carlos Sanchez, Instructor

Certificate – Instrumentation, Perry Technical Institute

Max York, Instructor

Certificate – Instrumentation, Perry Technical Institute
A.A.S. – ITT Technical Institute

PRECISION MACHINING & MANUFACTURING TECHNOLOGY**Dan Steinmetz, Department Head****Jay Wellner, Instructor**

Certificate – Machine, Perry Technical Institute

MEDICAL TECHNOLOGY**Lashel Church, Department Head**

American Academy of Professional Coders – Certified

Angela Fiscus, Instructor

Certificate – Medical Office Administration & Coding, Perry Technical Institute
American Academy of Professional Coders – Certified

Cheryl Johnson, Instructor

A.D.N. – Yakima Valley Community College

Kindra Perez, Lab Coordinator

A.A.S. – Yakima Valley Community College

WELDING TECHNOLOGY**Scott Hamway, Instructor**

A.A.S. – Washtenaw Community College

Leonard Thompson, Instructor

A.T.A. – Centralia Community College

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