

# 2016 - 2017 CATALOG

# ACCREDITATIONS ACCREDITATIONS Accrediting Commission of Career Schools and Colleges

American Veterinary Medical Association (AVMA), Veterinary Technology Program

The Physical Therapist Assistant Program at Johnson College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: <a href="mailto:accreditation@apta.org">accreditation@apta.org</a>;

website: <a href="http://www.capteonline.org">http://www.capteonline.org</a>.

Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850 Chicago, IL 60606-3182 (312) 704-5300 e-mail: <a href="mail@jrcert.org">mail@jrcert.org</a> Radiologic Technology Program

National Automotive Technicians Education Foundation, Inc. (NATEF), Automotive Technology Program

### **APPROVALS**

Pennsylvania Department of Education, State Board of Education United States Department of Education, Title IV Assistance Pennsylvania Higher Education Assistance Agency (PHEAA) Office of Vocational Rehabilitation Veterans Training

American Design Drafting Association (ADDA) International Curriculum Certification, Drafter Level, Architectural Drafting & Design Technology Program

### REGISTRATIONS

United States Department of Agriculture

www.johnson.edu

3427 NORTH MAIN AVENUE • SCRANTON • PENNSYLVANIA 18508-1495 (570) 342-6404 (800) 293-9675

### **About This Catalog**

This catalog is a primary reference source for students, faculty, staff, and the community and will answer many, if not all, questions regarding Johnson College.

Johnson College reserves the right, in its sole judgment, to make changes of any nature in its programs, calendar, or academic schedule whenever it is deemed necessary or desirable. Changes may include course content, scheduling of classes, and canceling of classes and other academic activities. The College will make every effort to provide students with timely notification of such changes.

This catalog does not establish a contractual relationship but summarizes current information regarding the calendar, admissions, degree requirements, fees, regulations, and course offerings. The information contained in this catalog is correct at the time of printing. Changes in policy, requirements, and regulations may occur during the year.

### **Non-discrimination Policy**

Johnson College welcomes applications from prospective students interested in pursuing an intensive technical or clinical program of education.

Johnson College does not discriminate with regard to race, color, creed, age, national or ethnic origin, religion, disability, sex, sexual orientation, gender, gender identity and expression, including a transgender identity, genetics, veteran status, or ancestry in the administration of its educational and admission policies, scholarship, loan, athletic and other school administered programs, or employment practices in accordance with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, or any other legally protected category. For information regarding civil rights and grievance procedures, contact the President/CEO of Johnson College, 3427 North Main Avenue, Scranton, PA 18508; (570) 342-6404.

# Accreditation/Approvals

Johnson College is accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC.) The Pennsylvania Department of Education, State Board of Education, has approved Johnson College as a two-year college.

The Automotive Technology Program is accredited by the National Automotive Technicians Education Foundation, Inc. (NATEF)

The Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT)

20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182

Phone: (312)704-5300 E-mail: mail@jrcert.org Website: www.jrcert.org

The Veterinary Technology Program is accredited by the American Veterinary Medical Association (AVMA)

The Architectural Drafting & Design Technology program has curriculum approval at the Drafter level by the American Design Drafting Association International (ADDA).

The Physical Therapist Assistant Program at Johnson College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: <a href="mailto:accreditation@apta.org">accreditation@apta.org</a>; website: <a href="http://www.capteonline.org">http://www.capteonline.org</a>.

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O. S. Johnson Technical Institute t/a Johnson College

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# 2016-2017 ACADEMIC CALENDAR

# Fall Semester 2016

Aug. 22	Semester Begins	Monday
Sept. 5	Labor Day, College Closed	Monday
Oct. 10	Fall Break (no classes)	Monday
Oct. 28	Course Drop Date	Friday
Nov. 11	Veterans Day, College Closed	Friday
Nov. 24-27	Thanksgiving Break, College Closed	Thursday thru Sunday
Dec. 9	Classes / Semester Ends	Friday

# **Spring Semester 2017**

Jan. 9	Semester Begins	Monday
Jan. 16	Martin Luther King Day, College Closed	Monday
Feb. 20	Presidents Day, College Closed	Monday
March 12-18	Spring Break, No Classes	Sunday thru Saturday
March 24	Course Drop Date	Friday
April 14-17	Break, College Closed	Friday thru Monday
May 5	Classes / Semester Ends	Friday
May 12	Commencement Practice	Friday
May 13	Commencement (tentative)	Saturday

# 2017-2018 ACADEMIC CALENDAR

# Fall Semester 2017

Aug. 21	Semester Begins	Monday
Sept. 4	Labor Day, College Closed	Monday
Oct. 16	Fall Break (no classes)	Monday
Oct. 27	Course Drop Date	Friday
Nov. 10	Veterans Day, College Closed	Friday
Nov. 23-26	Thanksgiving Break, College Closed	Thurs. thru Sun.
Dec. 8	Classes / Semester Ends	Friday

# **Spring Semester 2018**

Jan. 8	Semester Begins	Monday
Jan. 19	Martin Luther King Day, College Closed	Monday
Feb. 19	Presidents Day, College Closed	Monday
March 11-17	Spring Break, No Classes	Sun. thru Sat.
March 23	Course Drop Date	Friday
March 30-April 2	Break, College Closed	Fri. thru Mon.
May 4	Classes / Semester Ends	Friday
May 11	Commencement Practice	Friday
May TBD	Commencement (tentative)	TBD

# **History of Johnson College**

Johnson College, a two-year technical college, was founded by Orlando S. Johnson, a wealthy coal baron in the Scranton area who died in 1912. Mr. Johnson left the bulk of his estate to establish and maintain a trade school and his purpose became the mission of the College as an institution "where young men and women can be taught useful arts and trades that may enable them to make an honorable living and become contributing members of society."

A board of directors was created and a 41-acre tract in Scranton known as the William H. Richmond estate was selected as the site for the new enterprise. Opening in 1918, the school admitted young men and women who had completed a minimum of eight years of school and were 14 years old.

In 1964, the school became a post-secondary institution requiring applicants to be high school graduates or to have equivalency certificates. The name of the institution was changed from the Johnson Trade School to the Johnson School of Technology in 1966. The school was incorporated as a non-profit corporation in 1967, and in 1968 it was licensed by the Commonwealth of Pennsylvania Bureau of Private Trade Schools. Approval to award a degree of Associate in Specialized Technology came in 1974, with accreditation by the National Association of Trade and Technical Schools (NATTS) following in 1979.

In 1985, the name of the school was changed to Johnson Technical Institute; the three-year Associate in Specialized Technology degree programs were changed to two-year programs in 1987.

Responding to the continuing technological changes in society, the board, administration, faculty, staff and students conducted an intense two-year self-study, beginning in 1994, to assess the institution's strengths and weaknesses. The study led to a formal application to the Commission on Higher Education for status as a two-year college. The Pennsylvania Department of Education approved the application of Johnson Technical Institute as a two-year college in 1997; the change of name to Johnson College was instituted in 2001.

The graduating class of 1998 was the first class to receive either an Associate in Applied Science (A.A.S.) degree or an Associate in Science (A.S.) degree.

Continuing with the expansion of technology programs, a Veterinary Technology program was introduced in 1994. Clinical classes were held off-campus until the erection of a 6,500 square foot Science Center on campus was completed. The program received full accreditation from the American Veterinary Medical Association (AVMA) for the fall semester of 2000. In January, 2004 the College opened the Animal Care Center as a

teaching facility to enhance the Veterinary Technology educational experience. In 1995, Electrical Construction & Maintenance Technology was added to the curriculum, and the Bureau of Private Licensed Schools approved the Diesel Truck Technology program in November of 1996.

A Computer Information Technology program that specializes in enterprise computer networking was approved by the Commission on Higher Education in 2000, and a curriculum in Radiologic Technology received the Commission's approval for the fall, 2002 semester. Logistics & Supply Chain Management Technology program was approved as a program offering for the fall, 2006 semester and the Heating, Ventilation & Air Conditioning Technology program was approved for the fall, 2009 semester. A Welding Certificate program was approved in the spring of 2012 with major courses taught at a satellite location. A Health Science Technology Center was built to accommodate future allied health programs. After construction, the Physical Therapist Assistant Program was approved for the fall of 2013. A Business Management Associate in Applied Science degree - Project Management track was approved in the summer of 2014 which corresponded to a name change of the Logistics & Supply Chain Management Program to Business Management - Logistics & Supply Chain Management track which occurred during the same timeframe. In the fall of 2015, the Advanced Manufacturing Engineering Technology Program introduced. This new program provided an opportunity to remodel a large segment of Woolworth Hall where the program is based.

Today, approximately 400 students pursue degrees and certificates in 17 different trade, technical, or clinical programs. The College's twelve buildings include a library, gymnasium, physical fitness center, classrooms, shops, laboratories, administrative offices and a student apartment complex for on-campus living.

Over the years, Johnson College has served the region by providing programs of technical education and continually evaluates its programs to meet the technology needs of society. This evaluation process is assisted by the Program Advisory Committees of each program area, consisting of regional business and community leaders who meet several times during the year to advise the College on curriculum content, length of programs, and current materials and equipment. They also review placement and retention statistics. The College has maintained the initial intent of Mr. Johnson with a professional and dedicated staff to ensure up-to-date training that prepares graduates to readily step into entry-level positions in business and industry.

The current student body is comprised of approximately 70% males and 30% females. The students spend 66% of their time in technology courses and the remainder in general education classes. The College has an extensive program of internships, cooperative education and practicums with a variety of businesses and professional organizations.

One of the important success factors of Johnson College is a consistently high employment rate of students within a short time after graduation.

Today, Johnson College is a valuable resource for the changing technological needs of our region.

### Plan of Education

Students come to Johnson College to prepare themselves as entry-level technicians in the business and professional community.

To accomplish this primary objective, students pursue technology courses that amount to approximately 66% of their time at the College. The remaining 34% is spent in general education courses preparing them to advance in their careers. The usual class size is 25 but does not exceed 45 students.

Faculty members bring to each program a combination of professional education and sound, practical experience. The faculty exhibits a personal interest in the progress of all students, encouraging and assisting them to achieve the maximum benefit from their programs of study.

The physical facilities consist of modern classrooms, trade areas, and laboratories that are furnished with tools, machines, equipment, and materials that are required to provide a thorough program of education. Equipment used for training in each program of education is representative of that found in industry and is selected to provide the student with the broadest educational experience possible. Examples of this equipment consist of hand and power tools, specialized testing and repairing apparatus, industrial units and clinical devices. Some departments provide an extension of this exposure by requiring students to participate in a practicum/internship/cooperative educational experience.

Learning opportunities are enhanced through the use of the College library which is kept current with books, periodicals, and brochures and provides students with Internet capability. The Library/Resource Center provides for the gathering of information from a variety of outside services and is a member of the Northeast Pennsylvania Library Consortium. In addition, close contact is maintained with institutional and industrial libraries in the area which provide additional sources of reference information. Further learning comes from the use of educational videos, field trips and presentations by business and industrial consultants.

Careers in technology are constantly changing as a result of new products and developments in materials, tools, machinery, equipment, methods and techniques. Program Advisory Committees, comprised of representatives from business and industry, meet regularly with the faculty and administration to make suggestions on course content so that College programs are kept current.

### Mission Statement

Johnson College delivers industry-focused learning in a caring environment designed to develop graduates prepared to enter into and advance in their careers.

### **Vision Statement**

Johnson College: Developing technology leaders for tomorrow.

### **Johnson College's Core Values**

<u>Teamwork</u> We create strong partnerships while recognizing individual strengths and emphasizing respect and mutual support. We freely offer help and assistance to others and seek it when needed. We provide praise and encouragement to fellow employees and celebrate success…both individual and team.

**Respect** We respect the dignity and potential of each individual. As well as fostering a free and timely exchange of ideas and information in a collegial environment. In return we expect accountability in our people's actions and the consequences of their actions.

<u>Commitment</u> We cultivate professionalism through learning, goal setting, innovation, participation and continuous improvement. We believe in fulfilling our responsibilities to one another, our students, the higher education community, and the public.

<u>Trust</u> We believe in trust. Trust is the belief and confidence in the integrity, reliability and fairness of a person or organization.

<u>Integrity</u> We accomplish our mission with a commitment to ethics, honesty, trust, consistency, and fairness. We openly consult with others whenever in doubt about any decision or action being the right one.

<u>Positive Energy</u> We have passion and pride. What we do makes a difference. We are very excited about the contribution Johnson College makes in the community. We convey our enthusiasm and passion for Johnson College in all our communications and professional interactions. Taking pride in our work allows us to constantly strive to develop and improve. We are passionate about what we do!

The core values of an organization are those values we hold which form the foundation on which we perform work and conduct ourselves.

### **Degrees Awarded**

Johnson College is approved by the Pennsylvania Department of Education and the State Board of Education to award two degrees, the Associate in Science (A.S.) degree and the Associate in Applied Science (A.A.S.) degree. All the programs of study prepare graduates for entry-level positions in their field of study.

The Associate in Science (A.S.) degree is awarded to students who graduate from the following programs:

Computer Information Technology Physical Therapist Assistant Radiologic Technology Veterinary Technology

The Associate in Applied Science (A.A.S.) degree is awarded to students who graduate from the following programs:

Advanced Manufacturing Engineering Technology
Architectural Drafting & Design Technology
Automotive Technology
Biomedical Equipment Technology
Business Management – Logistics & Supply Chain Management Track
Business Management – Project Management Track
Carpentry & Cabinetmaking Technology
Diesel Truck Technology
Electrical Construction & Maintenance Technology
Electronic Engineering Technology
Heating, Ventilation & Air Conditioning Technology

### Certificates Awarded

The Certificate is awarded to students who graduate from the following programs:

Diesel Preventative Maintenance Technology Welding Technology\*

\*All major welding courses will be held at the College's welding shop. This is a satellite location. This location is at 2001 Rosanna Ave., Scranton, PA. The Welding Shop is approximately 1.5 miles from the Main Campus located at 3427 North Main Avenue, Scranton.

### ADMISSIONS INFORMATION

Johnson College accepts qualified students regardless of race, religion, disability or national origin. Admission to Johnson College is based primarily upon previous academic success. Previous academic success is seen as a key indicator of an applicant's readiness for future academic challenges and success. The College reserves the right to deny admission or re-admission to any student if, in the opinion of the College authorities, his/her admission is not in the best interest of the student or the College. At a minimum, applicants must have a high school diploma, or its equivalent.

Applicants are encouraged to arrange for a campus visit and a personal information session with an Admissions Representative and appointments may be made to meet with appropriate faculty and current students.

### **Outline of Admissions Process**

1. Complete the application. Student's can apply online at <a href="www.johnson.edu">www.johnson.edu</a>. There is a \$25 application fee. Students may also contact the admissions office at:

Johnson College 3427 North Main Ave. Scranton, PA 18508 570-702-8900 1-800-2WE-WORK

- 2. The applicant must have the following items sent to the Admissions Office
  - Official High School Transcripts from every high school attended or GED (GED policy below)
  - An official transcript from each post-secondary institution attended, if applicable
  - An official copy of Scholastic Aptitude Test (SAT) or American College Test (ACT) Scores (Physical Therapist Assistant, Radiologic, & Veterinary Technology only)
  - One Letter of Reference (Radiologic & Veterinary Technology only)
  - Two Letters of Reference 1 from a Physical Therapist or Physical Therapist Assistant (Physical Therapist Assistant)
  - Completed essay Questionnaire (Physical Therapist Assistant, Radiologic, & Veterinary Technology only)
  - Observation Verification Form (Physical Therapist Assistant & Veterinary Technology only)

Students will be notified of a decision as applications are processed.

### **Admissions Requirements**

### For all programs

1 year of Algebra with a "C" or higher

2 year of English with a "C" or higher

### **Physical Therapist Assistant**

1 year of Algebra with a "C" or higher

2 years of English with a "C" or higher

1 year of Biology with a "C" or higher

SAT scores of 900 or above (combined scores of Math & Verbal) or

ACT scores 18 or above

GPA 2.5 or higher

Recommended: 1 year of an additional life or physical science with a "C" or higher

### Radiologic Technology

1 year of Algebra with a "C" or higher

2 years of English with a "C" or higher

1 year Biology with a "C" or higher

1 year of Algebra II or Geometry with a "C" or higher

Physics highly recommended

SAT scores of 900 or above (combined scores of Math & Verbal) or

ACT scores 20 or above or

ACCUPLACER (see page 10)

GPA 3.0 or higher

### **Veterinary Technology**

1 year of Algebra with a "C" or higher

2 year of English with a "C" or higher

2 years of Biology or a Life Science with a "C" or higher

1 year of Chemistry with a "C" or higher

SAT scores of 1300 or above (combined scores of Math, Verbal & Writing) or

ACT scores 18 or above or

ACCUPLACER (see page 10)

GPA 2.5 or higher

### **Certificate Programs**

2 years of English with a "C" or higher

1 year of basic mathematics with a "C" or higher

### **Admissions Procedure**

Completed application
Official HS transcript or GED
SAT or ACT scores (if applicable)
One/Two letter (s) of reference (if applicable)
Essay Questionnaire (if applicable)
Observation Hours (if applicable)

Physical Therapist Assistant, Radiologic and Veterinary Technology applicants who do not have SAT or ACT scores are required to take the College Board ACCUPLACER exam (administered by the Student Support Services Office of Johnson College) and submit those scores in place of the SAT or ACT scores.

### Minimum ACCUPLACER scores for:

<u>Physical Therapist Assistant, Radiologic Technology &amp;</u> Veterinary Technology applicants:				
Elementary Algebra 70				
Reading Comprehension	70			
Sentence Skills	70			
All Other Programs:				
Elementary Algebra	30			
Reading Comprehension	54			
Sentence Skills	60			

### **GED Students**

Applicants are considered GED students if they have passed the GED exam in lieu of high school graduation and if their high school class would have graduated within 5 years of the beginning of the semester for which admission is sought. A minimum score of 2250 is required for admission. GED applicants are required to submit the following documents and/or information to the Admissions Office before a final admission decision can be made;

- 1. Official GED scores
- 2. ACCUPLACER scores and
- 3. Official transcripts showing all work completed in high school.

### **Home-schooled Students**

Johnson College welcomes applications from home-schooled students. We offer the following information to assist you in assembling your application to Johnson College and to facilitate our evaluation of your candidacy.

The first important step is to get on Johnson College's mailing list. Once you are on the list, you will receive all the important information needed in preparing to attend Johnson College. To get on our mailing list, please e-mail <a href="mailto:admit@johnson.edu">admit@johnson.edu</a> and please include your name, address, phone number, when you plan to attend and your intended major.

Another important step in looking at Johnson College is to come for a campus visit. During a campus visit you will speak to an Admissions Representative and tour campus. To schedule a visit, please call 1-800-2WE-WORK or e-mail us at <a href="mailto:admit@johnson.edu">admit@johnson.edu</a>.

### **Preparing your Application**

We use the same criteria to evaluate home schooled applicants as we do for all others. However, since you may not have a traditional high school diploma, your application might be slightly different. To that end we ask that home schooled students submit the following with their applications:

- If you are under the umbrella of a diploma-granting organization, you will need to submit evidence of the coursework completed and your level of performance
- In absence of such a document, a transcript describing your high school program of study from a reputable home school correspondence program or a detailed roster of academic coursework at the secondary level
- Letter of Completion from the primary teacher or program administrator certifying completion of high school and date of high school graduation
- SAT/ACT Scores
- Official transcript from an accredited university or college (if applicable)
- A campus interview may also be required

Upon acceptance, applicants are required to remit a tuition deposit of \$250. Refer to the Enrollment Information section for further information on the tuition deposit and other enrollment requirements.

### **Application Deadline Dates**

Physical Therapist Assistant, Radiologic and Veterinary Technology: February 15 of each year; All other programs: May 1 of each year.

### Acceptance

Admission decisions include an evaluation of the applicant's desire, ability, and potential for success. Interviews with admissions representatives and or faculty members may be required. All application materials will be reviewed and evaluated by the Admission's Representative and forwarded to the Associate Director of Admissions for final decision.

### **Campus Visit**

Applicants are encouraged to visit the College, tour the facilities, meet with students, and discuss career goals with the Admissions staff.

### **Career Advising**

Applicants are encouraged to arrange for career advisement which is available by appointment without charge.

### Veterans

Johnson College welcomes veterans and assists them in carrying out their responsibilities with the US Department of Veterans Affairs. Johnson College and the Financial Aid administrators are certified officials for VA military benefits.

### Rehabilitation

Johnson College welcomes students under the sponsorship of the Office of Vocational Rehabilitation (OVR) and will make reasonable accommodations for the disabled.

### **SOAR (Students Occupationally and Academically Ready)**

SOAR is a career and technical education initiative that establishes statewide articulation between secondary and post-secondary education. These programs of study enable high school graduates in career or technical programs to earn college credit that can be applied to their continued studies at the post-secondary level. Visit <a href="http://www.portal.state.pa.us/portal/server.pt/community/programs\_of\_study/7686">http://www.portal.state.pa.us/portal/server.pt/community/programs\_of\_study/7686</a> to see how your high school credits may be accepted by the College.

### **Transcript Evaluation Policy**

Students looking to obtain transfer credit must submit an official copy of their college transcripts to the Admissions Office. Coursework previously completed at another accredited institution or through the Prior Learning Assessment process will be evaluated relative to its equivalency to Johnson College courses and to the specific major. The appropriate Faculty Member and the Registrar will make final decisions on acceptance of such coursework. Students who wish to transfer courses must follow the procedures below:

- Complete the steps listed under Application Requirements
- Have official transcripts from all previous coursework sent directly to the Admissions Office. Course descriptions, course syllabus or a catalog may be required.

A copy of the evaluation will be provided to the student by mail within 10 business days. The College accepts a maximum of 30 credits from another accredited institution to qualify for an Associate's degree and a maximum of 15 credits to qualify for a Certificate. Only courses completed with a grade of "C" or higher will be considered for transfer credit. (Physical Therapist Assistant and Radiologic Technology courses will be evaluated on a case-by-case basis and will require a grade of "C+" or higher.) Credit requested under PLA format may require an equivalent grade of "B" or higher.

Transfer credit will appear on the student's transcript but only credits from Johnson College will be used in computing the student's Grade Point Average (GPA) and eligibility for academic honors. It is the responsibility of the student to ensure that all courses have been evaluated prior to registration to avoid duplication of courses.

Coursework completed within the past ten years will be evaluated according to current standards. Coursework completed more than ten years ago will be evaluated on a course by- course basis by the Senior Director of Student Assessment & Support Services, the Registrar and the appropriate Faculty Member.

Once enrolled at Johnson College, students may transfer no more than six additional credits, without receiving prior approval, based upon a demonstrated hardship, from the Registrar's Office. Enrolled students must also receive approval for Off-Campus study.

Accepted students wishing to receive transfer credit must submit their official college transcript no later than August 1<sup>st</sup>, otherwise there will be significant delays in processing.

### **Approval for Off-Campus Study**

Johnson College will accept credits from other institutions for courses taken by a current student provided the student receives approval from the appropriate Department Chairperson prior to registering for the course and completes the necessary paperwork. The student also must provide the Johnson College Registrar with an official transcript verifying a grade of "C" or higher upon completion of the course. It is the responsibility of the student to ensure these transcripts are forwarded to the Registrar's Office. Students may not transfer more than six credits in approved off-campus classes. Approval forms may be obtained through the Registrar's Office or are available on the Registrar's page of the College's website.

### Transfer of Credit with Baccalaureate Institution

Johnson College has program specific articulation agreements with four baccalaureate awarding institutions: Keystone College, Marywood University, Pennsylvania College of Technology and State University of New York, (SUNY) Canton. The latest listing can be found at <a href="http://www.johnson.edu/docs/registrar/Articulation Agreements.pdf">http://www.johnson.edu/docs/registrar/Articulation Agreements.pdf</a>

### **ENROLLMENT INFORMATION**

Applicants who are accepted to Johnson College must meet the requirements listed below.

### **Tuition Deposit**

A \$250 tuition deposit is required from accepted students. This deposit will be applied to first-semester tuition. Deposits will be refunded according to ACCSC standards to accepted students who do not enroll.

### **ACCUPLACER College Placement Exam**

All newly-accepted students are required to take the ACCUPLACER College Placement Exam. The ACCUPLACER exam tests students in three areas: Elementary Algebra, Reading Comprehension, and Sentence Skills. Based on the test results, students may be required to participate in the Johnson College Preparatory Program. Written verification of test scores will be provided upon completion of the exam. If the minimal score is not achieved, students have the option of re-taking the test once. A photo ID and Social Security card are required to sit for the exam.

### Johnson College Preparatory Program

The Johnson College Preparatory Program provides academic reinforcement services prior to the start of the freshman year. The Preparatory Program includes math, writing, reading and study skills courses as well as access to a computer lab. An accepted student who does not meet minimal ACCUPLACER scores for their specific program area will be required to complete one or more College Prep courses with a grade of "C" or higher during the summer prior to the start of classes. Taking these courses may result in extending a student's program of study and, consequently, may have an impact on eligibility for financial aid. Credits earned in College Preparatory courses cannot be used to meet graduation requirements and do not count as elective courses; grades earned in College Preparatory courses are calculated into overall GPA. Developmental classes will be evaluated on a Pass / Fail basis with the minimum passing grade of 76 or C+. Failure of any of these courses will result as a reason for Academic Probation of a student.

### **Medical Inoculations**

On-campus housing students are required to provide proof of immunization against meningococcal disease to the Student Life Department before being permitted to live on campus.

Information on medical inoculations for Biomedical Equipment Technology, Physical Therapist Assistant, Radiologic Technology and Veterinary Technology students is located in the Special Enrollment Requirements section of the respective program area.

# **Criminal Background Check Alcohol and Drug Screening**

Some programs of study, educational experiences, clinical practicums, internships, and cooperative education programs, as well as potential employers, may require a criminal background check, child abuse clearance, fingerprinting and/or drug screening. Johnson College is not responsible for the decisions or actions of other institutions or organizations that may result from students' failure of drug screening or background check or students' failure to report the results of these incidents to the College.

The results of a criminal background check will not necessarily preclude admission to Johnson College.

The Freshman Orientation program includes an in-service presentation on the use of drugs and alcohol.

### **TUITION, FEES, EXPENSES**

The following tuition and fees are for the 2015-2016 academic year. The College reviews tuition and fees annually and reserves the right to adjust fees when necessary.

### **Application Fee**

A \$30 application fee is required of every applicant for degree-seeking status. This fee is refundable only if a student cancels the application within three days of payment.

### **Tuition Deposit**

Accepted students must submit a \$250 deposit within 30 days of receipt of an acceptance letter. This deposit is required prior to registration and is credited to the student's tuition account.

### **Tuition**

Tuition for full-time attendance (12 to 21) credits per semester, 24 to 42 credits per academic year) for the 2015-2016 academic year is \$16,284.

Tuition for part-time attendance (fewer than 12 credits per semester) is based on the number of credits for which a student registers. The tuition rate per credit is \$510.

### **Additional Fees**

Fees for part-time students (fewer than 12 credits per semester) are prorated based on the number of credits per semester for which a student registers.

For example a part time student registered for 6 credits per semester will be billed at 50% of fees.

Regardless of number of credits registered, students will be billed 100% for orientation and graduation fees.

### All students are required to pay the following annual fees except as indicated:

### General Fee \$275

The general fee covers Student Government allocations, student activities, auto registration/roadway maintenance, and accident insurance with \$25,000 medical coverage per accident.

Program Fee-HVAC & Carpentry
Program Fee-Radiologic & PTA
Program Fee-Welding
Program Fee-All other programs
\$550

The program fee defrays the institutional operating costs associated with maintaining and upgrading equipment within each program.

### Technology Fee \$425

The computer lab fee covers the cost of utilization of the computer labs and a personal e-mail account for all students.

### Orientation Fee \$150 (freshmen only)

The Orientation Fee covers the cost of the College's Freshman Orientation program.

### Graduation Fee \$200

The graduation fee covers the cost of diplomas, caps and gowns, invitations, and the post-graduation reception. There is no reduction in the fee for graduates who do not attend commencement. The graduation fee is required for each degree earned.

### On-Campus Housing

The on-campus housing cost is \$6,860 per student per year for a double-occupancy apartment and \$5,010 per student per year for a triple occupancy. The Microtel campus living option cost is \$7,760 per student per year. This cost includes a meal plan and applies only to students who live in on-campus housing. A one-time security deposit of \$200 is required. Students who would like to have telephone services are responsible for those expenses. Housing registration forms may be obtained from the Student Life Office.

### **Books & Supplies**

Books and supplies will cost approximately \$1,500-\$2,000 per school year; this amount may vary substantially depending on the program in which a student is enrolled.

### Transcript Fee

Johnson College will provide an official transcript to each student, free of charge, at graduation. Subsequent transcripts are available at a fee of \$5 each upon written request.

Request forms may be obtained from the Registrar's Office. Official transcripts (bearing the seal of the College and the signature of the Registrar) are sent directly to the university, college, agency or employer indicated by the student. Official transcripts will not be issued unless all financial obligations have been met at the time of the request. Johnson College is permitted to withhold official transcripts from former students who have defaulted on a federal Stafford Loan. A copy of the transcript will be furnished to the former student with the notation "unofficial" stamped on it. Unofficial transcripts may be requested by students for their personal use at a fee of \$5.

### **Medical Inoculations**

Information on medical inoculations for Biomedical Equipment Technology, Physical Therapist Assistant, Radiologic Technology and Veterinary Technology students is found in the Enrollment Requirements section for the respective program area. These costs vary for each program based on the type and fee for each clinic.

### Special Fees

Information on special fees for Automotive, Biomedical Equipment Technology, Diesel, Radiologic Technology and Veterinary Technology are found in the Enrollment Requirements section for the respective program area.

### Senior Testing Fees

Seniors in their last semester of education in Automotive, Diesel and HVAC programs will be charged a testing fee that is required for industry certification. Fee costs will be reflected on the most current Enrollment Agreement for that academic year.

### Radiologic Technology Summer Practicum Fee

In addition to tuition and fees, Radiologic Technology students will have a summer practicum fee of \$1,200. Students are responsible for the costs of required health exams and immunizations.

### Veterinary Technology Summer Internship Fee

In addition to tuition and fees, Veterinary Technology students will have a summer internship fee of \$1,000. Students are responsible for the costs of required health exams and immunizations.

### Other Fees

Drop/Add a course	\$ 15
Re-admission	\$ 15
Change of grade	\$ 25
Returned Check	\$ 25
Late registration	\$ 30
Credit by examination	\$ 100

### FINANCIAL AID

Financial aid helps meet college costs, both educational (tuition and fees,) and living (food, housing, and transportation) for those who qualify. Through various programs offered by state and federal governments, as well as private lenders, financial aid helps the cost of education become affordable.

Several forms of financial assistance are available to students who qualify. Participation in programs funded by state and federal agencies requires the Financial Aid Office to comply with the regulations set forth by each agency concerning student eligibility and academic progress standards. This will generally require the completion of the Free Application for Federal Student Aid (FAFSA).

Responsibility for financing an education rests first with students and their families. Financial aid should be viewed as supplementary, to be used only after the full resources of students and their families are committed.

### **Eligibility**

Each funding source has its own eligibility requirements; further information is available through the Financial Aid Office.

### Grants

Federal Pell Grant\*
Federal Supplemental Educational Opportunity Grant (FSEOG)\*
PHEAA Grant (Pennsylvania Higher Education Assistance Agency)\*
Johnson College Institutional Grant\*

### Loans

Federal Direct Subsidized Student Loan\*
Federal Direct Unsubsidized Student Loan
Federal Direct Parent Loan for undergraduate Students (PLUS)

### **Work Study Employment**

Students who are interested in on-campus employment through work-study programs may obtain further information from the Financial Aid Office.

<sup>\*</sup>Indicates need-based aid to eligible students

Federal Work-Study: an on-campus, federally-funded employment program that provides supplemental assistance to students who demonstrate financial need.

Johnson College Work-Study: an on-campus, institutionally-funded employment program that provides supplemental assistance to students regardless of financial need.

### Satisfactory Academic Progress and Receipt of Financial Aid

\* Note – Some of the policy has been updated to reflect current guidelines and is solely placed on this website. They are not found in the printed copy of the 2016-2017 Johnson College Catalog.

Federal regulations require that educational institutions measure students' progress toward a declared educational degree objective both quantitatively and qualitatively. In accordance with these regulations, Johnson College has established the following standards to measure a student's academic progress for each academic year. These standards will be applied uniformly to all students when determining their eligibility for federal and/or Johnson College funds regardless of whether the student previously received these funds. Should a student fail to meet any of these requirements they are deemed ineligible to receive Title IV funding and/or Johnson College funds until the deficiency is made up by the student.

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### **Enrollment Status**

Students enrolled for at least 12 credits are considered "full-time" for that semester.

Students enrolled for at least 9 credits but less than 12 credits are considered "three-quarter time" for that semester.

Students enrolled for at least 6 credits but less than 9 credits are considered "half-time" for that semester.

Students enrolled for less than 6 credits are considered "less than half-time" for that semester.

\*\* Enrollment status is determined at the end of the 100% tuition refund period each term.\*\*

### **Quantitative Requirement**

All students must successfully complete (earn) a minimum of 80% of all the credits he or she attempts at Johnson College during the entire period of enrollment. To calculate percentage divide the total number of credits earned by the total number of credits attempted. Example: 24 credits earned/30 credits attempted = 80%. Credits considered attempted are those for which the student is enrolled as of the end of the add/drop registration period (1<sup>st</sup> week of the semester).

Successful completion of credits is defined as the assignment of a passing grade for the courses attempted and equates to the number of credits earned. Failure, withdrawal,

incomplete or other designations to the courses attempted are not considered successful completion.

Courses that are repeated will be counted in the calculation of credits attempted and will be counted only once as credits earned when the student receives a passing grade. Aid is granted for repeated course work but does not include more than one (1) repetition of a previously passed course.

If an incomplete grade becomes a passing grade, a reevaluation of the number of credits earned is conducted to assess the student's successful completion of the required number of credits. It is the student's responsibility to inform the Financial Aid Office of such a grade change.

Developmental courses are counted as hours attempted and, if successfully completed, hours earned. Credits earned are counted toward academic progress but do not count towards a student's degree. Therefore, these credits will be excluded from the time allowed to complete a degree requirement or the PACE at which a student will graduate.

For transfer students, transfer hours accepted are counted as both attempted and earned toward degree requirements.

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### **Qualitative Requirement \***

In addition, students must meet the following minimum Cumulative Grade Point Average (CGPA) requirements:

- 1. At the end of the first semester of undergraduate study: 1.80(certificate students only)
- 2. At the end of all years of undergraduate study: 2.00

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### Time Allowed to Complete Degree Requirements (PACE)

Under Federal regulations, the maximum time frame that a student may have to complete a degree is 150% of the published length of the educational program for a full-time student. This includes all semesters even if no financial aid was received. A student must have completed a minimum of 61 credits to complete a degree at Johnson College and therefore, it is expected that all students should complete all degree requirements by the time the student has attempted a minimum of 92 credits. Students who do not continue to meet these standards will not be on PACE to graduate and thereby will be a risk of losing their Title IV funding. In order to stay on pace, a full-time student should complete an average of 18 credits per semester. Students who change majors are responsible for completing their degree requirements within the specified timeframe.

### **Evaluation of Eligibility \***

For degree students, an annual evaluation of a student's academic standing and progress to determine federal and state eligibility is made at the end of each annual period. Academic progress will be determined by the Financial Aid Office based upon the information contained in the student's academic transcript as of the date of the review. A student who fails to meet the standards for minimum satisfactory academic progress will be notified in writing that he/she is ineligible for aid the next academic semester.

For credit based certificate programs, an evaluation of a student's academic progress is made at the midpoint of the program.

Once a student achieves the minimum standards, it is his/her responsibility to request reinstatement from the director of financial aid.

### Students Applying for Re-Admittance to Johnson College

Any student applying to return to Johnson College will have progress checked upon request of clearance from the Admissions Office. If at that time the student shows a progress deficiency from previous semesters at Johnson College, he/she will be deemed ineligible for Federal and/or Johnson College funding until progress is met. These students will be notified immediately upon completion of review.

### Re-Establishing Eligibility for Financial Aid

### Credit Deficiency (quantitative):

Students may make up a credit deficiency by attending Johnson College without aid. Or students may take credits at another accredited institution as long as the credits will be accepted by Johnson College towards the student's degree objective. Once a student has made up the credit deficiency, it is the student's responsibility to notify the Financial Aid Office and request to have their financial aid reinstated.

### Cumulative Grade Point Average Deficiency (qualitative):

Students may make up a CGPA deficiency by attending Johnson College without aid. In order for a CGPA deficiency to be made up, classes must be taken at Johnson College. Classes taken at other accredited institutions have bearing only on credit deficiencies and will not affect the CGPA; only credits transfer in – not the grade(s) earned. Once a student has reached the required CGPA, it is the student's responsibility to notify the Financial Aid Office and request to be reinstated.

In both situations the Financial Aid Office will verify that the deficiency has been made up and award aid if appropriate. If the Financial Aid Office's findings are inconsistent with the student's, the student will be contacted and the results explained.

### **Appeal Process**

Students who do not meet Satisfactory Academic Progress requirements have the right to appeal. Students may appeal the discontinuation of their financial aid if failure to meet the standard was the result of an undue hardship caused by death of a relative, student injury or illness, or other special circumstances. An appointment should first be made with a Financial Aid Counselor for an initial review of the situation. The appeal must be typewritten and submitted to the director of financial aid within 30 days from the date of the student's suspension notification letter and must include evidence that supports the claim of mitigating circumstances. The appeal should include an explanation of the extenuating circumstances which resulted in the student's inability to meet the requirements. The student must show that the hardship that created the poor academic performance has been resolved and should not impede academic success in the future. In some cases, supporting documentation may also be required. The director of financial aid will review all appeals.

If the appeal is granted, the student's financial aid eligibility will be reinstated and the student will be on probation for the next semester. Minimum standard for progress must be met by the end of the probationary semester.

If the appeal is denied, financial aid will only be reinstated when the student achieves the minimum standards.

### **PHEAA State Grant**

PHEAA state grant recipients who received assistance as full time students must complete a minimum of twenty-four (24) credits for every two (2) semesters of state grant assistance while those who received assistance as part time students must complete a minimum of twelve (12) credits for every two (2) semesters of state grant assistance. This requirement must be met even if the state grant was received for attendance at another institution. Students must be enrolled in an approved program of study of at least 2 academic years in length, students enrolled in a program of study where at least 50% of the total credit or clock hours needed for completion of the program are earned through classroom instruction. The program itself must be structured to allow you to complete at least 50% of your credits or clock hours in the classroom. The enrollment pattern must also consist of at least 50% classroom instruction (unless the student has a medical disability).

### **Industry Tuition Reimbursement Plans**

Many companies provide their employees with reimbursement for education expenses. Students should consult their employer for further information. Arrangements for this type of payment should be set up with the Bursar's Office prior to the start of classes.

### **Scholarships and Merit Awards**

In addition to the financial aid programs cited above, scholarships and merit awards are available to eligible students. Criteria for individual scholarships are listed below; further details may be obtained through the Financial Aid Office. Scholarships and merit awards are not necessarily renewable from first year to second year and may require reapplication. Recipients of all scholarships and merit awards are determined primarily by the Johnson College Director of Financial Aid and the Senior Director of Student Engagement unless required otherwise by an individual scholarship.

Award amounts for endowed scholarship funds are determined annually according to earnings on the funds and in accordance with Johnson College policies. Annual awards of non-endowed scholarships are determined on a year-to-year basis contingent on continued funding of the scholarships.

### **Scholarships**

Alekna Memorial Scholarship is based on financial need after other forms of financial aid have been awarded. Preference is given to students from the Tunkhannock, Elk Lake or Lackawanna Trail (Pennsylvania) school districts.

Edgar A. and Ida M. Alekna Scholarship provides funds to students who demonstrate financial need. Students of all majors are eligible.

John K. and Mary E. Blackledge Memorial Scholarship, Mr. & Mrs. John P. Sweeney, Sr., Benefactors, is awarded to a first-year student. The scholarship is renewable for the second year if the recipient continues to meet the scholarship criteria, which includes good academic standing and commitment to quality education.

*Margaret Briggs Scholarship* is awarded to a first or second-year student with financial need; preference is given to students from Lackawanna County.

**Sean J. Calpin Automotive Technology Scholarship Fund of the Scranton Area Foundation** is awarded to a student in the Automotive Technology program who has a Grade Point Average of 3.00. The student must display good citizenship and service to others as well as have a sincere commitment to the automotive technology field.

*CMC Rich Vinansky Memorial Scholarship* is awarded to two first-year students in the Radiologic Technology program.

**Vernon "Terry" Decker Scholarship** is awarded to a second-year non-traditional student, with preference given to a student in the Electronic Technology program. Students who show initiative, desire and financial need will be considered.

**John T. Gerod Scholarship** is awarded to a first and second-year student with preference given to students enrolled in the Precision Machining Technology program. This scholarship is based on instructors' recommendations, scholastic achievement, and a sincere interest in the machine trades field.

**Thomas Hesser Scholarship** is awarded to a first or second-year student enrolled in the Automotive Technology program. It is based on educational achievement, initiative and desire to succeed, as well as instructors' recommendations.

*Hill's Pet Nutrition, Inc. Scholarship* is awarded to a second-year student with financial need in the Veterinary Technology program.

Frank & Jean Hubbard Scholarship are awarded to graduates of North Pocono High School who will be attending their first year at Johnson College and who are recommended by their principal or guidance office for demonstrating scholastic achievement, leadership, entrepreneurial abilities, and financial need. The recipient must take 15 credits each semester and the scholarship is renewable when specific conditions are met. Recipients are reviewed on academic achievement.

**Johnson College Alumni Scholarship Fund** is awarded to a freshman student who is an alumnus of the College and returning to attend another program, or is a dependant of an alumnus. If no students qualify, the scholarship fund will be used as grant money.

*Johnson College Employees Scholarship* is awarded to a first-year student with financial need. Preference will be given to a student in the technical area of the Faculty Co-Chair of the previous year's Annual Fund Campaign.

**F.** David Mercanti Memorial Scholarship is awarded to a first or second-year student with financial need in the Carpentry and Cabinetmaking Technology program.

**Ruth Stitt Morgan Memorial Scholarship** is given to a second-year student enrolled in the Veterinary Technology program. Preference will be given to students with strong desire and enthusiasm to their program area. The recipient must have at least a B average and a satisfactory performance in the first-year clinical rotation.

**Northeast Pennsylvania Veterinary Medical Association Scholarship** is awarded to a second-year student in the Veterinary Technology program with a minimum GPA of 3.00.

*John R. O'Hara Scholarship* assists a first-year student from the Greater Scranton-Lackawanna County (Pennsylvania) area who demonstrates academic excellence, leadership qualities, community commitment and technology area excellence.

**P. Fricchione and Sons Scholarship** is awarded to a student in good academic standing, who has financial need and is majoring in the Heating, Ventilation and Air Conditioning Technology (HVAC) program.

**Anthony Ploskonka Memorial Scholarship** is awarded to a first-year student with a minimum high school grade point average of 3.00; recipients must perform a minimum of ten hours of community service per year. The scholarship is renewable for the second year if the recipient continues to meet the scholarship criteria.

*Irene Ploskonka Memorial Scholarship* is awarded to a first-year student with financial need and a minimum high school grade point average of 2.50; recipients must perform a minimum of ten hours of community service per year. The scholarship is renewable for the second year if the recipient continues to meet the scholarship criteria.

**Pocono Mountain Street Rod Association Scholarship** is awarded to a second-year student enrolled in the Automotive Technology program. The recipient must be a full-time student with financial need and have a minimum GPA of 2.50.

**Presidential Scholarship** is awarded to two first-year students based upon academic preparation in high school. Priority consideration is given to both high school academic records and SAT/ACT scores. The half-tuition scholarship is renewable for the second year for recipients who maintain full-time status and a minimum GPA of 3.50.

**Anthony F. Rosar Memorial Scholarship** is awarded to a second-year student in the Carpentry & Cabinetmaking program who attains a 3.0 GPA or higher and is actively involved in volunteering their time to those in need.

**Ross Family Foundation Scholarship** is awarded to a student who is in good academic standing with the College. A student from any of the program areas is eligible.

**Scranton UNICO Foundation Scholarship** is awarded to a first-year student with financial need; the recipient may re-apply for second-year funding.

Society of Broadcast Engineers, Chapter II is awarded to a student in the Electronic Technology program who intends to pursue a career in electronic media.

**Islyn Thomas Achievement Award** is given to a first or second-year student with preference given to students enrolled in the Precision Machining Technology program. This scholarship is awarded to one student annually, based on financial need, community service, and technology area excellence.

*Villa Capri Cruisers Car Club, Inc. Scholarship* is given to a student enrolled in the Automotive Technology program who shows the greatest financial need.

Mary & Garfield Williams Scholarship is given to a student enrolled in the Carpentry & Cabinetmaking Technology program who shows the greatest financial need.

**Ed Vogel Memorial Scholarship Fund** is given to a second-year student in the Diesel Truck Technology Program or the Automotive Technology Program. This scholarship is awarded to one student annually, based on exceptional involvement in school or community activities and a minimum Grade Point Average of 3.2.

#### Merit Awards

*Orlando S. Johnson Merit Award* is given to two first-year students who have a Scholastic Aptitude Test (SAT) score of 1,000 or higher and a GPA of 3.30 or higher. The Orlando S. Johnson Merit Award is renewable for the second year for recipients who maintain full-time status and a minimum Grade Point Average of 3.30.

**Richmond Merit Award** is given to two first-year students who have an SAT score of 850 or higher and a GPA of 3.00 or higher. The Richmond Merit Award is renewable for the second year for recipients who maintain full-time status and a minimum Grade Point Average of 3.00.

**Moffat Merit Award** is given to two first-year students who have an SAT score of 800 or higher and a GPA of 2.80 or higher. The Moffat Merit Award is renewable for the second year for recipients who maintain full-time status and a minimum Grade Point Average of 2.80.

**Technology Merit Award** is given to two first-year students who have a GPA of 3.00 or higher and community or technology work experience. The Technology Merit Award is renewable for the second year for recipients who maintain full-time status and a minimum Grade Point Average of 3.00.

## WITHDRAWAL AND ADJUSTMENT OF CHARGES

Students who officially withdraw from their programs of study at Johnson College may be eligible for an adjustment of tuition charges and fees. Adjustments are based on the official date of withdrawal or the last day of documented class attendance, as determined by the Registrar.

## **Tuition Adjustment**

Students who withdraw or are terminated from Johnson College during the semester will be entitled to an adjustment of tuition and fees according to the following schedule:

Withdrawal:	Adjustment:	Withdrawal:	Adjustment:
before classes begin	100%*	sixth week	60%
first week	90%	seventh & eighth week	50%
second & third week	80%	ninth & tenth week	40%
fourth & fifth week	70%	after tenth week	no refund

<sup>\*</sup>See Application of Policy (1), found on the next page.

Johnson College institutional grants, PHEAA grants, and scholarship funds awarded to students who withdraw or are terminated may be adjusted according to the same schedule.

Federal aid and/or state grant assistance (such as PHEAA) and/or institutional assistance from Johnson College may not cover all unpaid institutional charges due the College upon the student's withdrawal. In such cases, students will be billed for remaining balances.

#### **State Guidelines**

Pennsylvania and other state's grants will be adjusted in accordance with the agency's stated guidelines. PHEAA Grant funds may be reduced by the same percentage as the tuition reduction received by students who withdraw from their programs of study. However, it should be noted that PHEAA reserves the right to make the final decision on the percentage of the reduction.

#### **Federal Guidelines**

In accordance with federal regulations, students who receive federal financial aid and withdraw from Johnson College during the first 60% of a semester will have their federal financial aid adjusted based on the percentage of the semester completed prior to the

withdrawal. Students will be entitled to retain the same percentage of the federal financial aid received as the percentage of the semester completed. This percentage is calculated by dividing the number of days in the semester (excluding breaks of five days or longer) into the number of days completed prior to the withdrawal (excluding breaks of five days or longer). The date of withdrawal will be based on the official date of withdrawal or the last day of documented class attendance as determined by the Registrar.

Once the amount of federal funds to be returned has been calculated, the funds will be returned in the following order:

- Unsubsidized Federal Direct Student Loans
- Subsidized Federal Direct Student Loans
- Federal Direct Parent Loan for Undergraduate Students (PLUS)
- Pell Grants
- Federal Supplemental Educational Opportunity Grants (FSEOG)

The amount to be returned to a specific federal program may not exceed the total amount awarded from that program.

First-year, first-time borrowers who withdraw before the 30<sup>th</sup> calendar day of the program of study are prohibited from receiving Federal Direct Student Loan funds (Unsubsidized Direct Loans and Subsidized Direct Loans) at the time they withdraw.

## **Application of Policy**

- (1) Applicants who have not visited the school prior to enrollment will have the opportunity to withdraw without penalty within three business days following either the regularly scheduled orientation procedures or following a tour of the school facilities and inspection of equipment where training and services are provided.
- (2) All monies paid by an applicant must be refunded if requested within three days after signing an enrollment agreement and making an initial payment. An applicant requesting cancellation more than three days after signing an enrollment agreement and making an initial payment, but prior to entering the school, is entitled to a refund of all monies paid minus a registration fee of 15% of the contract price of the program, but in no event may the school retain more than \$150. Any refunds due to applicants shall be refunded within 30 days from a notice of cancellation or failure to appear on or before the first day of class.
- (3) Any refunds due to students who begin attending classes shall be refunded within 30 days from the date of withdrawal or the last day of attendance as determined by the Registrar, whichever is later.

- (4) The withdrawal date is used to determine the percentage of the period of enrollment completed and, therefore, the amount of aid a student has earned. The date of determination that the student is no longer enrolled is used in the following circumstances:
  - Students who receive a refund of financial aid prior to withdrawing from Johnson College may owe a repayment of the federal financial aid funds received. Students will be contacted by the Financial Aid Office in such situations and will be given 45 days from the date of determination to repay the funds to Johnson College. Students who fail to return the unearned portion of federal financial aid funds given to them will become ineligible for continued receipt of financial aid until such time as the repayment is made.
  - Within 45 days of the date of determination, Johnson College must return the amount of federal funds for which it is responsible.
  - Within 30 days of the date of determination, Johnson College must offer withdrawing students any amount of post-withdrawal disbursement that is not credited to the student's account.
  - Within 90 days of the date of determination, Johnson College must respond to a request by a student or parent to make all or a portion of the post-withdrawal disbursement.

Further information about refunds of financial aid may be obtained from the Financial Aid Office.

## **ACADEMIC INFORMATION**

#### **Student Success Seminar**

The Student Success Seminar course is designed to help freshmen adjust to the college environment, develop a better understanding of the learning process and acquire essential academic survival skills.

SS 101 is an interdisciplinary introduction to the college experience, including policies and resources, study skills, test preparation, use of college resources, technology, electronic mail, academic and career planning, time and money management, and discussion of relevant contemporary topic in health and wellness. The students will learn how to navigate the technology-learning tool Desire 2 Learn and participate in workshops to become familiar with campus resources. This course may also be offered in a distance education format, when available.

Successful completion of SS 101 – Student Success Seminar is a graduation requirement. Failure to successfully complete the course will require a rescheduling of the course for a subsequent semester or at the end of the freshman year to an intensive Independent Study. Students who have previously earned an associate's degree or higher from an appropriately accredited institution of higher education will be exempt from this course with official verification.

## Change of Name / Address

The Registrar's Office must be informed in writing of any changes to a student's personal information, such as name, address, telephone number, and/or place of employment. It is the student's responsibility to keep the College informed of any changes to student information. In the event of a name change, a marriage license or divorce decree must be presented along with the Name Change form. Name Change forms may be obtained through the Registrar's Office or on the college website at <a href="www.johnson.edu">www.johnson.edu</a> under Current Students/Academics/Registrar.

#### Verification

A verification letter provides proof of enrollment, graduation, student status, or other student related information. It does not provide specific course or grade information as found on an official transcript. Verification letters may be requested by organizations such as an insurance company or sponsor. Verifications are provided free of charge to all students, both current and previously enrolled students. Letters verifying enrollment will not be provided prior to the beginning of the semester; if a student needs verification

prior to the start of the semester, a letter will be provided stating that the student is "scheduled to enroll."

## **Length of Programs**

The academic year, consisting of two 15-week semesters, begins in August and ends in May. Programs of degree-based education are 24 months in length (four semesters totaling 60 weeks) except those which may require summer internships/practicums. The Physical Therapist Assistant program is 29 months in length (five semesters totaling 75 weeks). The Diesel Preventative Maintenance Technology certificate program of education is 9 months in length; the Welding Technology certificate program is 9 months in length. Total program hours vary by department.

## **Prior Learning Assessment**

Prior Learning Assessment (PLA) in Pennsylvania is a joint collaboration by the Pennsylvania Department of Education and the Pennsylvania Department of Labor & Industry. PLA is defined as a validated process to evaluate knowledge and skills students gain from life experiences. When these prior learning experiences demonstrate college-level learning and align with college course competencies, postsecondary institutions may award college credit. (Evaluation of prior learning completed 10 years before the request date is based on review by the Senior Director of Student Assessment & Support Services, appropriate Department Chair and Registrar's Office.)

Johnson College has entered into a Prior Learning Assessment Agreement with the Pennsylvania Department of Education to apply PLA standards in the following manner.

## **Credit by Examination**

- AP (ADVANCED PLACEMENT) Students who have completed advanced courses in high school or vocational-technical school may be eligible for advanced placement. Students seeking advanced placement should indicate their intention to the Admissions Office prior to the beginning of the semester. Such students will be required to complete an application for advanced placement and to take a competency exam. Upon completion of the exam (a grade of "B" or above is required for advanced placement), students will be notified and the information will be entered on their transcript but not calculated into their GPA. Advanced Placement scores from the College Board may be substituted for the College's advanced placement exam.
- Advanced Placement Mathematics The Mathematics faculty will review previous academic records of students who test at or above an 80 in the Algebra ACCUPLACER placement test to determine if they are sufficiently prepared for

advanced placement into MAT 201 (College Algebra & Trigonometry). Students requiring six (6) MAT credits who opt for the advanced placement into MAT 201 must register for an advanced MAT course to complete graduation requirements. Students in the Logistics program of study are required to complete 3 credits, MAT 121, as part of their degree requirements.

- CLEP (College Level Examination Program) Students who have completed CLEP exams prior to attending Johnson College should submit their exam scores at the time of application to the College (a grade of "B" or above is required). The appropriate Department Chair and the Registrar's Office will review the test to determine applicability to awarding credit for Johnson College coursework.
- ECE (Excelsior College Examinations) Students who have completed Excelsior exams prior to attending Johnson College should submit their exam scores at the time of application to the College (a grade equivalent to "B" or above is required). The appropriate Department Chair and the Registrar's Office will review the test to determine applicability to awarding credit for Johnson College coursework.
- DSST (DANTES (Defense Activity for Non-Traditional Education Support)
  Subject Standardized Tests) Students who have completed DSST exams prior
  to attending Johnson College should submit their exam scores at the time of
  application to the College (a grade equivalent to "B" or above is required). The
  appropriate Department Chair and the Registrar's Office will review the test to
  determine applicability to awarding credit for Johnson College coursework.
- Johnson College Challenge Examination Full-time students, who are currently enrolled in a course and who believe they have adequate knowledge of the subject, may request to receive credit by examination. To complete a course under this policy, a student must make arrangements with the class instructor and obtain approval by the appropriate department chairperson, the Senior Director of Student Assessment & Support Services, and the Registrar. Students should submit a completed Challenge Examination Form (obtainable from the Registrar's Office or under the Forms section of the Registrar's webpage). Grades earned on the Challenge Exam will be placed on the student transcript. Testing must take place prior to the completion of the third week of class.

Students, including those with a "deposit confirmed" status, who believe they have adequate knowledge in a subject area whether through military service, noncredit training, work experience, etc. and who do not have transcripts documenting that learning may be eligible to sit for a Johnson College Challenge Examination. To complete a course under this policy, a student must obtain a Challenge Exam form from the Registrar's Office then meet with the appropriate department/division chair for an assessment to determine eligibility. Once approved by the department/division chair, student must obtain approval from the Senior Director of Student Assessment & Support Services and the Registrar.

Grades earned on the Challenge Examination will be placed on the student transcript after successful completion of the first semester of study.

Johnson College reserves the right to make an exception to the above policy for students with an "accept" status based on circumstances surrounding that student as discussed with the Senior Director of Student Engagement.

The fee for taking the Challenge Exam is \$100 and must be paid prior to the examination; student must present a paid business office receipt to the exam proctor. The fee will be waived with proof of veteran status. The college will not allow more than three full-course equivalents completed by Challenge Examination to count toward a degree without approval of the Senior Director of Student Assessment & Support Services.

The Center for Professional Development (CFPD) – Students must complete continuing educational certificate program to qualify for taking an exam without credit enrollment. The fee is \$100.

## **Service Members Opportunity College**

Johnson College is recognized as a Service Members Opportunity College (SOC) for members of the Military Services also including the National Guard, the Coast Guard and the Office of the Secretary of Defense. The Senior Director of Student Engagement serves as the contact person for service members and may be reached at <a href="mailto:admit@johnson.edu">admit@johnson.edu</a>.

## **Credit for Military Experience – Educational Programs**

Students who have completed educational programs offered by branches of the American armed services may be granted academic credit for their coursework. Students should submit an official transcript of their coursework as part of the admissions process. Transcripts will be evaluated according to the guidelines stated by the American Council on Education (ACE) Guide to the Evaluation of Educational Experiences in the Armed Services in determining the credit value of learning acquired in military service. Upon review by the appropriate Department Chair and the Registrar's Office, credit may be awarded for appropriate learning acquired in military service at levels consistent with ACE Guide recommendations and/or those transcripted by the Community College of the Air Force when applicable to a service member's program of study. Applicants who have served in the armed services must submit a certified copy of form DD-214, Report of Separation.

## Credit for Military Experience – Military Workplace Learning

As an SOC institution, Johnson College assists service members and veterans to incorporate credits into their degree programs based on collegiate-level learning achieved not only through formal school training but also through occupational experience and nationally-recognized non-traditional learning testing programs (see Credit by Examination).

Johnson College recognizes the value of specialized military training courses. The appropriate department chair and Registrar's Office will review and if appropriate award credit for Military Occupational Specialties (MOS) and Navy Rates and Ratings as recommended by the ACE Guide to the Evaluation of Educational Experiences in the Armed Services. Students must submit an official transcript of their military training courses for evaluation.

## **Workforce Training**

Johnson College recognizes the knowledge and skills that students may acquire as result of training in the workplace. The American Council on Education (ACE) National Guide to College Credit for Workforce Training is used to determine if the knowledge and skills demonstrate college-level learning. Credit recommendations from ACE may be used to obtain college credit or for advanced placement.

Students seeking credit for Workforce Training should send an official transcript from the ACE Transcript Service to the Registrar's Office for review. The appropriate Department Chair and Registrar will review such transcripts on a case-by-case basis.

If a student has participated in Workforce Training that is not recognized by the American Council of Education, they may seek validation of that training for credit through use of the Johnson College Challenge Exam procedure.

## Registration

Johnson College hosts two Program Orientation Days during the summer for registration of incoming fall freshmen. The Registrar's Office handles registration for students as part of the enrollment process. Freshmen may make any necessary schedule changes to their fall schedule during the first week of the semester. Online classes are periodically offered to students. These classes will be listed separately within the registration directory. Only students who have completed the "Student Online Success Strategies" successfully will be allow to participate in classes offered in an online format. Additional information on online policies are found in the Student Handbook under "Distance Education."

Subsequent registrations are held twice a year during the prior semester. The Registrar will announce the procedures and dates of registration.

Students who have outstanding balances will be put on Bursar's Hold by the Bursar's Office and will not be permitted to register until that hold is released by the Bursar.

All students must meet with their academic advisor prior to registration and obtain an official class schedule from the Registrar.

Students are permitted to attend only those classes for which they have officially registered and paid. An officially registered student is one who:

- has submitted an approved registration form
- has reconciled all charges with the Bursar's Office
- has been accepted for scheduling by the Registrar.

It is the responsibility of students to ensure that they are following the suggested program outline and meeting all program requirements for graduation. Failure to do so may result in extending their program of education.

## **Student Academic Course Load**

A student is considered full-time when registered for a minimum of 12 credits per semester. A student is considered part-time when registered for fewer than 12 credits. A student typically carries 12 to 19 credits in both the fall and spring semesters. An academic overload occurs when a student attempts to register for more than 19 credits in a semester. Students who wish to register for more than 19 credits must have the permission of the Senior Director of Student Assessment & Support Services. Students who are granted permission for an academic overload are subject to additional tuition charges.

#### **Formation of Sections and Cancellation of Courses**

Johnson College reserves the right to cancel a program, course, or section, to change the time of meeting, to subdivide a section, or to combine two or more sections as circumstances may require. Every effort is made to minimize the impact of such changes on students. Students who are involved in a change of schedule should see their academic advisor, or the Registrar.

#### **Course Audits**

Students may audit a course for personal enrichment. They may attend classes and participate in lectures and laboratory activities but are not required to complete assignments or take tests. Students who elect to audit a course will receive a grade of "AU" on their transcript that indicates that no grade or credit has been given for the course. The charge for audited courses is the same as for credit courses.

## **Practicum / Internship / Cooperative Education Experience**

Johnson College offers opportunities for practicum/internship/cooperative education experience that integrates technical studies with supervised work experience. Students may be employed by industry, business or government organizations for a specific period of time in positions related to their technical fields and must meet all requirements for these experiences. Additional information about this program is available in the Career Services office.

## **Change of Major**

A change of major may be made at any time during the first two academic weeks of a semester. Currently enrolled students who wish to change their major must complete a Change of Major form and obtain the required signatures as indicated on the form. Forms may be obtained through the Registrar's Office.

## **Change of Schedule**

After a student is registered, changes to the schedule may be made through the process of adding and/or dropping a course. Students may be admitted to another course or change sections, depending on availability of seats, only during the first academic week of a semester. Schedule Change forms are available through the Registrar's Office.

A \$15 Drop/Add fee will be assessed for each Drop/Add form submitted.

Any change in schedule must first be approved by the student's advisor.

#### **Student-Initiated Dropping of a Course**

From the first day of class to the end of the second week of the semester, a student may drop a course without notation, provided a Drop/Add form is submitted with the required signatures. Dropping a course during this period results in no grade or transcript record.

From the third week of the semester to the end of the tenth week of class, a student-initiated withdrawal receives a grade of "W" (Withdrew) which is not calculated into the student's Grade Point Average (GPA) but does appear on the student's transcript.

From the eleventh week to the last day of the course, students are not permitted to withdraw from a class.

## Student-Initiated Adding of a Course

A student may add a course during the first week of a 15-week semester provided a Drop/Add form is submitted with the required signatures.

After the first week of the semester, approval from the course instructor is required to add a course.

After the second week of the semester, approval of the Senior Director of Student Assessment & Support Services is required to add a course.

## **Repeated Courses**

Students may repeat a course in which they earned a "D+", "D" or "F" in order to improve their Grade Point Average (GPA). The repeated course will appear on the student's transcript twice. The original grade will be replaced with an "R" and only the new grade will be used in calculating the student's GPA. A course may be repeated no more than three times.

Students receiving a grade of "D+", "D" or "F" may elect to take the course at another institution and transfer the credit for it to Johnson College. In this event, the original grade will be replaced with an "R" and will be used only in calculating the total number of credits required for graduation. Transfer credit will not be used in the calculation of a student's cumulative GPA.

## **Credit Hours and Grading System**

Each course has a credit-hour value based upon the required number of hours per week in the classroom, laboratory, or technical area as well as the appropriate number of additional outside work clock hours that support the didactic component of the class.

clock hour = 50 minute period

15 hours of lecture + 30 clock hours of additional outside work = 1 credit

30 hours of lab +15 clock hours of additional outside work = 1 credit

45 hours of internship = 1 credit

clinical practicum 240-360 hours (Radiologic Technology students only) = 1 credit \*

\*The Clinical Practicum Experience described by the Joint Review Committee on Education in Radiographic Technology (JRCERT) at a facility recognized by the JRCERT as meeting appropriate qualifications for delivery of clinical education. A clinical practicum experience is utilized for providing learning experiences to develop attainment of required program competencies. A Clinical Practicum site requires JRCERT recognition.

Course achievement levels and cumulative Grade Point Averages are provided on semester transcripts using the following grading system:

Letter Grade	Numerical Relationship	<b>Quality Points</b>
A	96-100	4.0
A-	92-95	3.67
B+	88-91	3.33
В	84-87	3.0
B-	80-83	2.67
C+	76-79	2.33
C	72-75	2.0
C-	68-71	1.67
D+	64-67	1.33
$D^*$	60-63	1.0
F	0-59	0.0
I**	Incomplete	
W	Withdrew	

<sup>\*</sup> Minimal passing grade

Cumulative Grade Point Average is computed using the following formula:

Cumulative GPA = total quality points earned per semester(s) total credit hours attempted per semester(s)

<sup>\*\*</sup> A grade of "Incomplete" will be awarded only in exceptional circumstances. A grade of "Incomplete" must be completed within 10 school days. If the grade is still "Incomplete" beyond this period, the grade will be reviewed and may be listed as an "F" or Failure and the course must be repeated.

## **Attendance Policy**

Since regular and prompt attendance is essential to scholastic success and growth, students are expected to attend all scheduled classes and lab sessions for which they are registered. Absence does not excuse a student from the responsibility for class work or assignments that are missed. Students should be sure that they understand the attendance policies as outlined in the course syllabus for each of their instructors and should notify their instructors in the case of absence.

Announcement of the College closing due to inclement weather or emergency conditions will be made on the College's website (www.johnson.edu), WNEP-TV, WYOU-TV, and local radio stations. Information may also be obtained by calling Johnson College at (570) 342-6404 and following prompts. Students may place an Emergency Notification form on file to receive automatic text messages and emails.

#### • Instructor Responsibilities:

- i. All faculty must provide students with a written attendance policy.
- ii. Instructor will provide class with the attendance policy in the course syllabus.
- iii. Record attendance daily.\*\*
- iv. Notify students of noncompliance with the attendance policy.
- v. Communicate warnings of absences via email to the student. These will be retained as a running record.
- vi. Syllabus must reflect how class/lab time missed will impact student grade.

#### • Student Responsibilities:

- i. Prepare thoroughly for each session in accordance with the course calendar and instructor's request.
- ii. Adhere to deadlines and timetables established by the instructor.
- iii. Display appropriate courtesy to all involved in the class sessions (courteous behavior specifically entails communicating in a manner that respects, and is sensitive to, the cultural, religious, sexual, and other individual differences in the college community).
- iv. Demonstrate respect for ideas, beliefs, and people.
- v. Students must inform instructor of all absences.
- vi. Students are responsible to make up the course work from the missed class.
- vii. Avoid chronic tardiness. Be here for when class starts.
- viii. Participate fully and constructively in all course activities and discussions as scheduled.
- ix. Students must verify all excused absences with the instructor.\*

\* Please refer to a list of possible excused absences including but may not be limited to: military, bereavement, extended illness, participation in school function, jury duty.

\*\*Portal Attendance Entries will consist of "Late," "Unexcused," "Excused." (For example some departments use 3 "Lates" constitute 1 unexcused absence.)

Student taking online coursework will also follow the attendance policy dictated by the syllabus. The criteria for attendance is noted in the "Student Handbook" under Distance Education.

## Make-up Work

When students are absent because of conditions beyond their control, they may be permitted to make up lost time in their academic and/or major courses. It is the responsibility of the student to request consideration for make-up work from the instructor. Make-up work is not permitted for the purpose of receiving Veterans Administration Training Allowances.

## **Satisfactory Academic Progress**

Students must maintain a Grade Point Average (GPA) of at least 1.80 for the first semester and a cumulative GPA of 2.00 for subsequent semesters, while completing at least 80% of credits attempted. Failure to maintain the prescribed GPA may prevent students from progressing to higher level courses within their program and may result in dismissal from the program.

Students who are in danger of not meeting the GPA requirement are advised to meet first with their faculty advisor, then with Financial Aid, and then with the Registrar to discuss alternatives and options.

Students must complete their degree at a pace of 150% for financial aid purposes; for example, a student in a two-year Associate degree program must complete within three years.

Information on minimum GPAs for Physical Therapist Assistant, Radiologic Technology and Veterinary Technology students is in the Retention section for each respective program area.

#### **Academic Probation**

Students whose GPA is below the minimum standard of 1.80 for the first semester or a cumulative GPA of 2.00 in subsequent semesters will be placed on academic probation for the next semester. Students must meet with the Financial Aid office to discuss financial aid eligibility. Students on probation are required to follow *Guidelines for Students on Academic Probation* as outlined in the Johnson College Student Handbook and to participate in the College's SUCCESS Program. After completion of the probationary period, students are required to maintain a minimum cumulative GPA of 2.00.

\* Specific Probation policies for Physical Therapist Assistant, Radiologic and Veterinary Technology students can be found in their respective Programmatic Handbooks.

Students who fail to satisfy the minimum standards for academic progress may be dismissed from the College.

## **Termination from the College**

Johnson College makes every effort to assist students in achieving their academic goals; however, the College reserves the right to dismiss students due to special circumstances. In such cases, charges will be adjusted according to College policy and the College will:

- send letters of concern to the student
- counsel the student prior to termination or dismissal
- inform the student of his/her termination or dismissal.

## Dismissal from a Program of Study

The Physical Therapist Assistant, Radiologic and Veterinary Technology programs have specific Grade Point Average (GPA) requirements for their major courses. Specific dismissal policies for Physical Therapist Assistant, Radiologic Technology and Veterinary Technology students can be found in their respective Programmatic Handbooks. Therefore, it is possible for a student to meet the minimum GPA of the College and not meet specific GPA requirements for the program. Students who do not meet GPA requirements for Physical Therapist Assistant, Radiologic Technology and Veterinary Technology will be dismissed from these programs. These students will have the option to transfer into another program of education providing their cumulative GPA is 2.00 or above.

## Withdrawal from the College

Students who wish to withdraw from Johnson College must:

- meet with the Registrar, Director of Financial Aid and the Assistant Director of Student Support Services
- inform the Residence / Student Life Coordinator where applicable
- complete an official Withdrawal form available from the Registrar's Office.

Upon official withdrawal, grades will be recorded on the transcript as "W" (Withdrew).

Johnson College does not consider absence from class an official notice of withdrawal. A student who stops attending class without officially withdrawing will receive the grade earned in that course.

## Medical Withdrawal and Re-entry Policy

Johnson College observes a Medical Withdrawal and Re-entry Policy. Further information is available in the Johnson College **Student Information Handbook**.

## **Student Complaint / Grievance Procedure**

Students having an academic issue should follow the procedure in the **Student Information Handbook** under Appeal of Academic Decisions & Due Process. The handbook is found on the Johnson College website under "Current Students/Student Resources." Complaints not pertaining to academic issues should be forwarded in writing to the Division Chair of the appropriate department. Upon completion of this step, if the complainant is still unsatisfied with the results, a copy of the complaint should be forwarded to the Senior Director of Student Assessment & Support Services for review. The complainant will be kept informed of the process of the complaint and the decision. The complainant has the option to continue the process by reviewing the ACCSC Complaint Grievance procedure.

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 considered by the Commission must be in written form, with permission from the complainant(s) for the Commission to forward a copy of the complaint to the school for a response. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Inquiries may be directed to the Accrediting Commission

of Career Schools and Colleges, 2101 Wilson Blvd./Suite 302, Arlington, VA 22201; (703) 247-4212; http://www.accsc.org/

A copy of the Commission's Complaint Form is available at the College and may be obtained by contacting the Senior Director of Student Assessment & Support Services.

## **Readmission Policy**

Johnson College encourages students to complete their education degrees. To assist students in this endeavor, the College has established the following readmission policy.

Readmitted students are those students who have been separated from Johnson College for two consecutive semesters or less, excluding summer session, and who have earned more than 30 credits prior to seeking to return. Otherwise, the student is considered a new applicant and must contact the Admissions Office to file a new application.

Students wishing to be readmitted, as defined above, must apply for readmission by contacting the Registrar's Office. A readmission application must be completed and submitted with a \$15 readmission fee. Students who desire to be readmitted must have no financial balance and/or any other obligation due to the College.

Students wishing to return who were on academic probation at their time of separation from Johnson College may also be required to meet with the Senior Director of Student Assessment & Support Services prior to being considered for re-admission.

Students who have been dismissed from Johnson College for academic reasons may seek readmission using the procedure outlined above. The Registrar, Senior Director of Student Engagement, Department Chairperson, and Senior Director of Student Assessment & Support Services make the decision for readmission jointly. Students will be enrolled on a probationary status and may be required to take a reduced academic schedule and/or participate in the SUCCESS Program. (Individual program readmission criteria may be found in individual program handbooks.)

Students who are readmitted are required to complete the graduation requirements in effect at the time they re-enter Johnson College. Coursework previously completed will be evaluated to determine if it meets current requirements. Students who have taken courses at other post-secondary institutions since their last date of attendance at Johnson College must submit official college transcripts of that coursework.

## **Veterans' Readmission**

Johnson College complies with Readmission Requirements for Service Members as outlined in the Higher Education Opportunity Act (HEOA) section 487.

The HEOA provides that an institution may not deny readmission to a service member of the uniformed services for reasons relating to that service. In addition, a student who is readmitted under this section must be readmitted with the same academic status as the student had when he or she last attended the institution.

This applies to service in the uniformed services, whether voluntary or involuntary, on active duty in the Armed Forces, including service as a member of the National Guard or Reserve, for a period of more than 30 days under a call or order to active duty of more than 30 days.

To view the full act visit: <a href="http://www2.ed.gov/heoa">http://www2.ed.gov/heoa</a>

#### **Readmission Procedure**

- 1) The Bursar's Office will first review all applications to determine if the student is in good financial standing with the College, before they are considered for readmission.
- 2) Applications of students deemed eligible for readmission will be reviewed by the Registrar's Office and will also be sent to the Department Chair for review and to determine if there are any stipulations to be added for readmission.
- 3) If a student originally left Johnson College for medical reasons, student must provide a medical release from a licensed medical provider to the Senior Director of Student Assessment & Support Services.
- 4) After notification of readmission and any requirements for readmission, student must meet with the Financial Aid and/or Bursar's office to develop a plan to finance their education.
- 5) Students then must complete normal course registration procedures in conjunction with an academic advisor or the registrar.
- 6) After meeting with the academic advisor or registrar, student will meet with the Registrar's Office to fill out appropriate enrollment paperwork and to register for classes.

## **Graduation Requirements**

Students must meet the following requirements in order to be eligible to graduate from Associate Degree programs:

- completion of Student Success Seminar (SS 101)
- completion of 61 credits for Architectural Drafting & Design Technology, Carpentry and Cabinetmaking Technology; 62 credits for Automotive Technology, Electrical Construction & Maintenance Technology; 63 credits for Advanced Manufacturing Engineering Technology, Computer Information Technology, Diesel Truck Technology, Heating, Ventilation & Air Conditioning Technology; 64 credits for Business Management-Project Management track; 65 credits for Business Management-Logistics & Supply Chain Management track, Electronic Engineering Technology; 67 credits for Biomedical Equipment Technology; 69 credits for Veterinary Technology; 71 credits for Physical Therapist Assistant; 73 credits for Radiologic Technology;
- completion of a minimum of 35 credits at Johnson College (requests for exceeding the College's minimum credit requirement must be submitted to the Registrar in writing and approved by the Senior Director of Student Assessment & Support Services)
- completion of clinical/practicum/internship/cooperative education experience for students in the Biomedical Equipment Technology, Business Management Logistics & Supply Chain Management track, Physical Therapist Assistant, Radiologic Technology and Veterinary Technology programs
- achievement of a cumulative Grade Point Average (GPA) of 2.00. Refer to the Retention section in the respective program areas for Physical Therapist Assistant, Radiologic Technology and Veterinary Technology
- full payment or satisfactory arrangement to fulfill all financial obligations
- submission of a completed Graduation Application form by the stated deadline.

Students must meet the following requirements in order to be eligible to graduate from certificate program:

- completion of 31 credits for Diesel Preventative Maintenance Certificate
- completion of 30 credits for Welding Technology Certificate
- full payment or satisfactory arrangement to fulfill all financial obligations
- submission of a completed Graduation Application form by the stated deadline
- completion of a minimum of 25 credits at Johnson College

Students who have not met the graduation requirements will not be allowed to participate in Commencement exercises, will not be eligible for Commencement Awards, and will

not have their names listed in the Commencement Program. Physical Therapy students should also refer to the PTA Student Handbook for Specific Graduation requirements.

## **Academic Honors and Recognition**

#### The President's List

The President's List is published at the end of each semester citing students who achieve a minimum 3.90 GPA, while carrying a minimum of 12 Johnson College credits and matriculating toward a degree. Students who receive a grade of W, F, or I on their transcript for the semester will not qualify for the President's List.

## **Honors upon Graduation**

Graduating students are eligible for recognition based upon scholastic merit. Highest Honors Awards are conferred on graduates with the highest cumulative GPAs among the candidates for the Associate in Applied Science and the Associate in Science degrees. Summa Cum Laude, Magna Cum Laude, and Cum Laude are citations conferred by the College for exceptional academic achievement and completion of a challenging curriculum. Students who are in danger of not meeting graduation requirements at the time of commencement will not be awarded honors.

Students who earn a cumulative GPA of 3.90 or higher as of their semester prior to graduation will graduate Summa Cum Laude. Those with a cumulative GPA of at least 3.80 and equal to or less than 3.89 will graduate Magna Cum Laude. Those with a cumulative GPA of at least 3.70 and equal to or less than 3.79 will graduate Cum Laude.

Graduation honors are calculated based on grades achieved at the end of the Fall semester preceding the May graduation date. Physical Therapist Assistant graduation honors are calculated based on grades achieved at the end of the Spring semester preceding the May graduation the following year.

## **Second Degree**

Students who wish to obtain a second degree may do so if they fulfill the following requirements:

- Students must be admitted into the major program in which the second degree is desired by the Admissions Department and/or Department Chair.
- Students must meet all of the curriculum requirements of the second degree for both major and required courses and successfully complete those courses which cannot be equated with courses taken in the first degree program.
- Students must meet with the Registrar and/or the Department Chairperson of the second degree program to determine the minimum number of credits that need to

be completed for the second degree in addition to the credits taken in the first degree program.

#### **Student Records and Record Maintenance**

In accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA), student records are maintained in the Registrar's Office of the College and are available for inspection by appointment during normal business hours. All documents are the property of Johnson College and may not be copied, duplicated or removed.

Student records may be viewed by College officials with a legitimate educational interest, certain federal and state agencies responsible for enforcement of the Privacy Act, officials of other colleges to which the student has sought enrollment, and accrediting institutions. In the case of a health or safety emergency, parents who claim a student as a dependent for income tax purposes may also view the records. All other requests for student educational records must have the written consent of the student.

The Privacy Act exempts certain records from the individual's examination, as follows:

- financial records of parents
- medical or paramedical records used only for treatment purposes; the individual may have a doctor or other competent professional review these records.
- law enforcement records that are used solely for law-enforcement purposes
- confidential letters of reference submitted prior to January 1, 1975 or letters of reference submitted after January 1, 1975 that were designated as confidential by the student at the time of his/her solicitation or submission.

## **Student Rights of Privacy and Access**

Unless directed by the courts or by determination of a school official that a "need to know" situation exists, information other than "directory information" is not released without a student's written consent. Directory information is determined to be a student's name, address, telephone number, enrollment status, e-mail address, program of study, dates of attendance, participation in activities and sports, honors received, degrees awarded and dates of awarding.

If a student does not wish directory information to be released, a Request to Prevent Disclosure of Directory Information must be submitted to the Registrar's Office within the first two weeks of a semester. Students may restrict directory information from being released without their permission; however, this also will prevent the Registrar from releasing information to the media regarding graduation or awards since that information includes the student's address.

Johnson College assumes that failure on the part of any student to specifically request the withholding of categories of "directory information" indicates individual approval for disclosure.

Johnson College will not release grade information to a student's parent(s) or guardian(s) without the student's written permission; no grade information will be released over the telephone; transcripts will not be faxed or emailed.

#### **Distance Education Classes**

Johnson College currently offers select classes in a distance education format. Classes offered using this delivery will be noted during class registration in the spring and fall and have strict class sizes. These classes are also noted in the College's catalog and require potential students to take the Student Online Success Strategies and complete it successfully. Students who fail to complete this course or fail will not be permitted to take any online coursework. Distance Education classes are provided to students to improve access to classes, provide flexibility options and reduce the amount of time needed to be on campus to complete their program of education. Students enrolled in a Distance Education class will have access to all library materials that are currently available to on-campus students. All online resources are connected to the college library's homepage. This includes Destiny (OPAC-Online Public Access Catalog), LIRN (Library and Information Resources Network), an online database to full-text publications, and Online Reference Center. All book and magazine article requests will be delivered via USPS, email, or fax. The library will support Distance Education programs through online access to electronic databases and access to the librarian by telephone, email requests or texting the librarian.

The written policies for each of the services provided to the distance education student are found in the Appendix of the Student Handbook (Distance Education Student Services Policy.) The services will be handled with the same resources used in the current face-to-face classes. The services provided to the distance education student will include the following departments: Financial Aid, Library, Registrar, Bursar, Career Services and Student Support Services.

## STUDENT SERVICES

#### **Student Information Handbook**

The Johnson College **Student Information Handbook** is accessible through the Johnson College website (<a href="www.johnson.edu">www.johnson.edu</a>, Current Students, Student Resources) to all students to explain assistance, regulations, organizations, scheduling, faculty, facilities, and curriculum. Johnson College adheres to a strict disciplinary sanction policy for violations of the campus rules and/or regulations. Students may reference this Sanction Policy in the Johnson College Student Handbook. It is the responsibility of the student to read the Handbook entirely and to comply with all regulations.

#### **Facilities**

#### **Library / Resource Center**

The Library / Resource Center at Johnson College is a technology-based library offering online computer services in addition to more than 4,500 volumes, 130 current periodical subscriptions and 300 items in the video collection. The library and its resources are available for onsite use by the general public.

#### **Computer Labs**

Two computer labs are conveniently located in the Moffat Student Center. Computers are equipped with the latest available versions Microsoft Windows, Office Suite software, and tutorial software. Computers are also available in the Library/Resource center for student use. Johnson College also provides wireless access campus wide.

#### **Fitness Center**

The Moffat Student Center has a fitness / training area available for student use. Hours of operation are contingent upon the facility's availability.

#### Cafeteria

Located in the Moffat Student Center, the cafeteria is professionally staffed and provides breakfast, lunch, and snacks. The cafeteria is generally open Monday through Friday from 7:00am-2:00pm. Vending machines are available for after-hours snacks and beverages.

#### **Student Housing**

Johnson College offers multiple housing options for students to choose.

On campus, we offer an apartment style housing community designed for 34 students. Each fully furnished apartment has a living room, eat-in kitchen, large bedroom, walk-in closet, bathroom, and is designed to house two students. The complex has a Community

Room with games, television, laundry, and mail facilities. Additionally, there is an outdoor recreation area with picnic tables, grills, and horseshoes.

Additionally, Johnson College has additional housing options available off site of the main campus. For specific options, please refer to the Housing Guide in the Student Life Office.

Residents living in campus housing must submit a Housing Interest Form which is binding for the entire academic year. Students will receive their housing assignment once they return all of the completed paperwork (Housing Deposit/Verification Form/Payment, Housing Preference Form, Health Clearance Form, Financial Planning Checklist, and Missing Student Contact Form,) necessary to secure housing.

Residents must be enrolled full time during the fall and spring semesters. Students whose academic course load drops below full time status will not be guaranteed housing unless they receive permission from the Director of Student Life. The College reserves the right to terminate campus residency of students not engaged in full-time study. During the summer, students must be registered for at least 1 class to live on campus.

When students complete and return their Housing Deposit/Verification Form and deposit, students agree to pay the remaining balance for campus housing for one year, to pay for a meal plan (if applicable), and to abide by the Housing License and Policies, as well as, the rules, regulations, policies and procedures outlined in the Johnson College Student Handbook.

We are committed to a policy prohibiting discrimination based on an individual's race, gender, religion, national origin, age, disability, or sexual orientation.

Campus housing is managed by the Student Life Coordinator for Student Engagement and Residence Life, Resident Assistants, security officers, as well as, staff from offsite locations.

#### **Bookstore**

Johnson College provides students with an online bookstore for text, supply, and apparel purchases. The bookstore can be accessed by visiting <a href="http://www.johnson.edu/current-students/student-resources/bookstore">http://www.johnson.edu/current-students/student-resources/bookstore</a>.

The online store allows students a variety of choices in their book purchases. Students have options to purchase new or used text materials, or if available, utilize the *book rental* and *eBook* options. Any questions regarding your online purchases can be directed to the Student Life Department located in the Moffat Student Center.

#### **National Honor Societies**

## Alpha Beta Kappa

Alpha Beta Kappa is a national honor society open to students who attain a cumulative GPA of 3.50 or higher by the beginning of their last semester at Johnson College and who have participated in a student organization for at least one semester during their time on campus. Eligible organizations include Student Government Association, Social Force, Johnson College Student Ambassador Program, JPow, Gamer Geekz, Snow Jags, athletics, and/or serving as a peer tutor. Peer Tutors must tutor a minimum of once a week for at least one semester. Students are inducted into the Omega of Pennsylvania chapter during a ceremony prior to graduation.

## Chi Alpha Epsilon

Chi Alpha Epsilon is a national honor society that was chartered at Johnson College in 2002. Full-time students who enter the College through a variety of programs and achieve a Grade Point Average (GPA) of 3.00 for two consecutive semesters will be considered for induction into Chi Alpha Epsilon. Eligible programs include the Provisional Accept program and the Summer Preparatory Program. Students who utilize the services of the Student Support Services Office or participate in the SUCCESS program will also be considered for induction. Chi Alpha Epsilon promotes continued high academic standards, honors academic excellence and offers additional opportunities for recognition throughout the students' college years as they continue to excel in their course work. New members are inducted during a formal ceremony.

## **Career Services**

Johnson College Career Services offers assistance to students and alumni seeking employment and internship opportunities. Career Services are available to help them to learn about their skills and interests to assist them in exploring career options and information on career choices as well as assistance with resume preparation, job search strategies, career fair preparation and interviewing skills in individual appointments and class presentations. Fall and Spring Career Fairs are held on campus where students and alumni can explore various employment opportunities with a variety of organizations and options for further education. The Director of Career Services regularly visits employers to learn more about the employment requirements and advises them of the various Johnson College technical programs. Information from these visits is shared with faculty, students and alumni. Employers are also invited to campus to present to students and to conduct interviews. Presentations are also provided to students on topics such as LinkedIn, networking, as well as Federal and Civil Service applications. Job announcements are emailed to graduates and faculty and posted on the Johnson College Group on LinkedIn.

#### STUDENT LIFE

## **Student Life Department**

The mission of the Student Life department is to develop well-rounded and responsible graduates by engaging our students in recreation, leadership, and social opportunities in an inclusive environment.

Student activities and organizations, athletics, housing, orientation, and the bookstore are under the supervision of the Student Life Department.

#### Freshman Orientation

Freshman Orientation is held to help incoming students adjust to college life and provide the information needed to make them successful at Johnson College. All new students are required to attend.

## **Student Organizations**

#### **Student Government Association (SGA)**

SGA is Johnson College's governing body for students and provides students with an opportunity to develop leadership skills while contributing constructively to Johnson College and the student body.

SGA is made up of a cabinet of campus elected student officers, as well as, student representatives from each organization, program area, as well as student interest groups such as Veterans, transfer students, and adult learners.

#### **Social Force**

Social Force is a community service organization for students. Members of Social Force participate in activities such as the Thanksgiving Food Drive, the Giving Tree Christmas project, and other community service activities as decided by the members. Social Force meetings are usually held bi-weekly during the lunch periods. Membership is open to all students and new members are always welcome.

#### **Ambassador Program**

The Student Ambassador Program consists of enthusiastic, knowledgeable, reliable students who are charged with assisting the Admissions Office in the recruitment of potential students and overall student retention for the school.

## Johnson Power (J-POW)

This organization allows students to explore leadership and professional development opportunities to better prepare them for the workforce after graduation and provide them

with the skills needed to attain a position, retain that position with an upward outlook, and succeed in their field of work.

## Johnson Activity Group (JAG)

This organization is an opportunity for students to plan and implement social and fun events on campus. JAG offers students the prospect to boost creative thinking and leadership skills outside the classroom, by conducting regular meetings, planning, promoting, and implementing events, and maintaining an annual budget. Johnson Activity Group is open for all students to join.

#### **Athletics**

Johnson College offers three inter-collegiate sports to students: Women's Volleyball, Men's Basketball and Men's/Women's Bowling. The Johnson College Jaguars Women's Volleyball and Men's Basketball compete in the Eastern Pennsylvania Athletic Conference, Region 19 of the National Junior College Athletic Association at the Division III level. The Bowling team competes as an independent for league play and bowls at the PCAA State Championships. Additionally, Johnson College offers Cheerleading.

#### **Intramurals**

Intramurals are offered twice each week during lunch and occasionally during evenings as announced. They are team sports with a league style format. Each league lasts 5 weeks and has a tournament at the end based on your overall record. You can sign up as an individual (free agent) or put together your own team for the competitions. Intramurals are great for meeting new people and for students that don't have the time to be on one of our athletic teams.

#### Gamer Geekz

This organization is for students interested in video gaming. Beginners, intermediates, and experts are all welcome! These students meet weekly to play new and old favorites and they also hold gaming tournaments with the chance to win prizes!

## **Snow Jags**

This group is for students who are interested in partaking in winter sports/adventures such as skiing, snowboarding & snow tubing! The group will be going to nearby mountains, (Montage, Elk) – being part of this group gets you AWESOME discounts!

#### Kappa Psi Nu (K\U)

Kappa Psi Nu is the first sorority at Johnson College. It is made up of female students who are focused on volunteering in the community, participating in college events and organizations, and building a sisterhood bond that will last a lifetime.

## **Student Support Services**

## Counseling

Johnson College's counseling program is available to students who may need assistance with academic issues or support with personal issues. Faculty or staff members may refer students to the counseling program or students may self-refer. Students may schedule appointments or just "drop by" as the need dictates. Counseling services are available at no additional cost. Counselors may assist with referrals to off-campus counseling/agencies as necessary.

#### **Perkins Grant**

The Perkins Grant program is a federal grant that enables Johnson College to provide support services to students who qualify within the program's guidelines. The program includes a comprehensive system of advising, counseling, and tutorial support.

#### **Tutoring**

Tutoring opportunities are available for general education and technical area courses. Scheduling of the tutoring session(s) is coordinated through the Student Support Services Office and is dependent on the availability of the tutor and the student.

Students may be referred for tutoring by their instructor or they may self-refer. They must register in the Student Support Services office by completing an Individualized Student/College Agreement. By signing the agreement, the student agrees to attend the scheduled tutoring sessions or to notify both the tutorial coordinator and tutor if they are unable to attend. If the student misses 3 sessions without notifying staff, the contract can be voided by Student Support staff. The appointment time slot is then opened for another student.

Evaluations are completed each semester by the tutors and the tutees. There is no additional cost to the student for tutoring services.

## **Learning Support / Testing Accommodations**

Learning Support, in the form of learning and testing accommodations, is available to students with disabilities or ADHD. Students must contact the Student Support Services Office to find out what documentation may be required to substantiate the need for accommodations and to make a request for accommodations. Please refer to the Policies and Procedures section of the Student Handbook for additional information or contact the Student Support Services office by phone at (570) 702-8955.

## **SUCCESS Program**

The SUCCESS Program is a tool offered to students who are motivated to achieve academic and personal success at the college level. The SUCCESS Program is designed to assist students with the transition to college-level academics and to help them to achieve their goals. Students are referred to the program through the admissions process, by a faculty or staff member, by the Senior Director of Student Assessment & Support Services, or by self-referral.

The SUCCESS Program offers tutoring, counseling, and advising services to students. Additional information about this program is available in the Student Support Services Office, Moffat Student Center.

#### **Educational Resources**

The Student Support Services Office has a full array of resources available for student use. Students may borrow from a library of audio tapes, video tapes / DVD's, and books on such subjects as study, test taking or note-taking skills; alcohol or relationship issues; self esteem building; organizational and time management skills. Also available to students are voice recorders, dictionaries, hand-held spell-checkers, calculators, and relaxation tapes. Students may borrow these items for a semester at a time as needed.

#### Deaf / Hard of Hearing

Students requesting a Sign Language Interpreter should contact the Student Support Services office as soon as they are accepted to the college. Policies for students utilizing Sign Language Interpreting Services can be found in the Policies and Procedures section of the Student Handbook. Any questions can be directed to the Assistant Director of Student Support Services/Disabilities Services Coordinator in the Student Support Services office at (570) 702-8955.

## Student Responsibilities, Conduct, and Dress

Johnson College students are responsible for reading and abiding by all rules and policies described in this **Catalog** and the **Student Information Handbook**. Students are personally responsible for following policies and procedures as they affect their academic progress, financial obligations, and relationships with College authorities, and eligibility for graduation.

Johnson College students are expected at all times to conduct themselves in a responsible manner that conforms to generally accepted standards of adult behavior. Students should show courtesy and respect for other students and the faculty as well as the administrative and support staff of the College. Students also must accept the need for various College regulations and comply with the directives of those authorized to enforce the regulations. Failure to conduct themselves in an acceptable manner may subject students to penalties

such as suspension, expulsion or arrest.

Johnson College students are also expected to exercise good judgment in selecting attire that is appropriate to an educational environment and to abide by all College policies regarding the wearing and use of safety equipment and apparel.

When in doubt about any College directive, students should seek advice from their faculty advisor or the appropriate office within the College.

## Discrimination, Harassment and Sexual Violence

Johnson College promotes a campus environment emphasizing the dignity and worth of all students, staff, and visitors that is free of discrimination, harassment, and violence. Actions or threats against an individual's age, color, disability, gender identity, marital status, national origin, race, religion, sex, or sexual orientation, or any other legally protected class will not be tolerated. Anyone engaging in such behavior will be subject to appropriate disciplinary action, up to and including termination of campus employment and/or termination from his/her program of education. Any student, who becomes aware of these possible behaviors, should promptly advise the Director of Student Life.

If a report about a possible sexual assault is made to a college administrator, faculty member, or staff member (other than to a campus counselor), the Director of Student Life will be informed and will notify local authorities. Student victims will have the option to change their academic and/or on-campus living situations after an alleged sexual assault, if such changes are reasonably available.

# PROGRAM OBJECTIVES AND EMPLOYMENT OPPORTUNITIES

Descriptions of programs on the following pages include a sequence of courses for each program. The sequence is designed to satisfy prerequisite requirements, to ensure access to courses that are not available every semester, and to ensure the completion of course requirements. Students are encouraged to adhere to the sequence as much as possible in order to complete the program in the traditional two-year time frame.

Johnson College recognizes that not all students are able to progress through the course sequence as presented. Students who are not able to adhere to the sequence are encouraged to consult with their faculty advisors in order to ensure completion of graduation requirements.

## **Advanced Manufacturing Engineering Technology (AAS)**

## **Program Objective**

The Advanced Manufacturing Engineering Technology program is designed to prepare students for the modern manufacturing environment of today. This program will prepare you for entry level positions within companies that have implemented team oriented design, production, quality, and maintenance systems within the manufacturing environment. The technical courses provide the graduate with a solid foundation of advanced manufacturing procedures. The combination of the general education courses and technical courses equip the graduates with the communication, mathematics, and problem solving skills necessary to perform in the modern workplace.

## **Career Opportunities**

American manufacturers are becoming increasingly dependent upon the use of high-tech equipment that involves multiple, integrated systems. It is critical that these companies be able to recruit and employ individuals who know how to operate, troubleshoot, and maintain this high-tech equipment.

#### **Program Goals**

- Graduates will possess the skills necessary to obtain entry-level technical positions in the manufacturing environment.
- Graduates will be able to troubleshoot electrical, electronic, and mechanical systems using theoretical principles and measured values to resolve operational issues
- Graduates will demonstrate the ability to communicate in a professional manner to determine the nature of a problem or to explain repairs.
- Graduates will demonstrate the proper and safe use of hand tools, measuring equipment and test equipment used during manufacturing or troubleshooting.
- Graduates will possess the skills necessary to correctly and safely operate machines used in the production of mechanical parts.

## **Pregnancy Policy**

It is the student's choice whether or not to inform the Department Chairperson of a pregnancy. If a student chooses not to do so, no accommodations can be made regarding the student's internship assignment or program of study. Students who choose to disclose their pregnancy should contact the Department Chair.

## Advanced Manufacturing Engineering Technology Major Courses (41 Credits)

AMT 101	Principles for Advanced Manufacturing	3
AMT 111	Fundamentals of Metal Cutting	3
AMT 112	Subtractive Manufacturing	3
AMT 121	Introduction to Electricity	3
AMT 122	Sensors and Systems in Automation	3
AMT 206	Systems Integration (Capstone Project)	4
AMT 208	or Internship	
AMT 211	Computer Numerical Control Machining	3
AMT 213	Computer Aided Design/	3
	Computer Aided Manufacturing	
AMT 214	Additive Manufacturing	3
AMT 221	Programmable Logic Controllers	4
AMT 223	Automation and Robotics	3
BRT 105	Blueprint/Schematic Reading	3 3
LOG 291	Total Quality Management	3
General Ed	lucation - Core (21 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3 3 3 3 3 3 3
ENG 212	Public Speaking	3
MAT 101	College Algebra I and Trigonometry	3
MAT 121	Introduction to Statistics	3
PHY 101	Introductory Physics	3
Other requ	irements	
SS 101	Student Success Seminar	1
Minimum (	Credits to Graduate	63

## Advanced Manufacturing Engineering Technology Associate in Applied Science (AAS) Semester Program Outline

		Credits
Semester 1	Dain sinter from A dress and Manuscrationing	2
AMT 101 AMT 111	Principles for Advanced Manufacturing Fundamentals of Metal Cutting	3 3
AMT 121	Introduction to Electricity	
ENG 101	English Composition I	3 3 3
MAT 101	College Algebra I and Trigonometry	3
SS 101	Student Success Seminar	1
		16
Semester 2		
AMT 112	Subtractive Manufacturing	3
AMT 122	Sensors and Systems in Automation	3
BRT 105	Blueprint/Schematic Reading	3
CPT 101	Microcomputer I	3 3 3 3
MAT 121	Introduction to Statistics	
TC: 4 \$7 7		15
First Year T	otals	31
Semester 3		
AMT 211	Computer Numerical Control Machining	3
AMT 221	Programmable Logic Controllers	4
LOG 291	Total Quality Management	3 3 3
ENG 212	Public Speaking	3
PHY 101	Introductory Physics	_
G		16
Semester 4 AMT 206	Contains Internation (Constant Project)	4
AM1 200	Systems Integration (Capstone Project) or AMT 208	4
AMT 208	Internship	4
AMT 213	Computer Aided Design/	3
	Computer Aided Manufacturing	
AMT 214	Additive Manufacturing	3
AMT 223	Automation and Robotics	3
BUS 101	Introduction to Business	3
		16
Second Year Totals		32
Program T	63	
Minimum	63	

## **Architectural Drafting & Design Technology (AAS)**

## **Program Objective**

The Architectural Drafting & Design Technology program prepares students as entry-level technicians in computer-assisted drafting (CAD) and Building Information Modeling (BIM) for residential and commercial construction. Students will work and learn in all areas of Architectural design and drafting. Instruction and hands on learning includes all phases of building design drafting, print reading, cost estimating, specifications writing and sustainability concepts.

## **Career Opportunities**

Graduates work as designers, computer drafting technicians, construction estimators, architects' representatives, engineering technicians, facility management technicians and field construction inspectors.

Typical employers in the architectural career field are residential, commercial, and industrial contractors and land developers; architectural design firms, civil design firms, and structural engineering companies; modular and mobile home builders; facilities management companies; real estate developers; and government design agencies.

## **Program Goals**

- Graduates will acquire the skills necessary to obtain an entry-level position in the design field.
- Graduates will demonstrate professional behavior and ethics in order to meet the challenges of work within their field.
- Graduates will acquire critical thinking and decision making skills.
- Graduates will acquire a foundation of education and skills for career advancement and lifelong learning.

#### Certification

American Drafting and Design Association International (ADDA)

## **Pregnancy Policy**

It is the student's choice whether or not to inform the Department Chairperson of a pregnancy. If a student chooses not to do so, no accommodations can be made regarding the student's internship assignment or program of study. Students who choose to disclose their pregnancy should contact the Department Chair.

## Architectural Drafting & Design Technology Major Courses (40 Credits)

ADT 113	Residential Planning	4
ADT 114	Introduction to Computer Assisted Drafting (CAD)	4
ADT 120	Contract Drawings	3
ADT 121	Residential Cost Estimating	3
ADT 220	Building Information Modeling, Residential	4
ADT 221	Building Information Modeling, Commercial	4
ADT 223	Codes and Ordinances	3
ADT 224	Specifications	3 3
ADT 225	Commercial Cost Estimating	
ADT 226	Sustainability Design or ADT 217 or ADT 218	3
ADT 217	Internship	4
ADT 218	Co-op Educational Experience	4
BUS 110	Business Research and Report Writing	3
MCH 201	Statics & Strength of Materials	3
General Edu	cation - Core (20 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
ENG 212	Public Speaking	3 3 3 3
MAT 101	College Algebra I and Trigonometry	
MAT 110	Trigonometry	3
Elective (2/3 Credits)		2/3
Other requirements		
SS 101	Student Success Seminar	1
Minimum Credits to Graduate		61

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation.

### Architectural Drafting & Design Technology Associate in Applied Science (AAS) Semester Program Outline

	Ü	Credits
Semester 1		
ADT 114	Introduction to Computer Assisted Drafting (CAD) Planning	4
ADT 120	Contract Drawings	3
BUS 101	Introduction to Business	3
BUS 110	Business Research and Report Writing	3 3
MAT 101	College Algebra I and Trigonometry Student Success Seminar	1
SS 101	Student Success Seminar	1 17
Semester 2		17
ADT 113	Residential Planning	4
ADT 121	Residential Cost Estimating	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
MCH 201	Statics & Strength of Materials	3
	5	16
First Year To	otals	33
Semester 3		
ADT 220	Building Information Modeling, Residential	4
ADT 223	Codes and Ordinances	3
ADT 224	Specifications	3
ENG 212	Public Speaking	3
MAT 110	Trigonometry	3
		16
Semester 4		
ADT 221	Building Information Modeling, Commercial	4
ADT 225	Commercial Cost Estimating	3
ADT 226	Sustainability Design	3
	or ADT 217 or ADT 218	4
ADT 217	Internship	4
ADT 218	Co-op Educational Experience	4
	Elective	2/3
		12/13/14
Second Year	Totals	28/29/30
Program Totals		61/62/63
Minimum Credits to Graduate		61

### **Automotive Technology (AAS)**

#### **Program Objective**

The Automotive Technology program prepares students as entry-level technicians in the automobile and diesel industries.

### **Career Opportunities**

Graduates can work for employers in the automotive career fields of automotive, truck, farm and earthmoving equipment dealerships; truck, power generation and construction companies; automotive service centers; engine repair/machine shops; automotive equipment distributors; independent service garages; automotive parts manufacturers; sales representation; and auto insurance companies. Graduates may work with brake systems, transmissions, alignments and repairs; be representatives in claim, sales and service, or become truck/fleet maintenance technicians.

#### **Program Goals**

- Graduates will possess the appropriate skills needed for entering the Automotive Technology field.
- Graduates will understand the importance of professional behavior, as well as comply with the daily changes within the Automotive Industry and will meet the challenges of continued growth within the Automotive Technology Profession.
- Graduates will be provided the skills that will allow them to choose careers in the field.

#### **Programmatic Accreditation**

The Automotive Technology program is accredited by the National Automotive Technician Education Foundation (NATEF), 101 Blue Seal Drive, S.E., Suite 101, Leesburg, VA 20175

Email: webmaster@natef.org Phone: (703) 669-6650 Website: www.natef.org

#### **Special Fees**

In addition to tuition and fees, Automotive Technology Students will have a fee of \$186 to cover State and Federal Licensing Requirements; State Inspection, Emissions and HVAC license.

### **Pregnancy Policy**

It is not required to tell the instructor if you are pregnant but it is highly recommended because of the lifting and other requirements of the program that may jeopardize the health of the mother and fetus.

### Automotive Technology Major Courses (41 Credits)

VMR 141	Introduction to Vehicle Maintenance &	3
	Repair Technology	
VMR 142	Brake Systems	3
VMR 143	Steering and Suspension Systems	3
VMR 144	Electrical & Electronic Systems	3
VMR 245	HVAC Vehicle Systems	3
AUT 155	Engine Performance & Emissions	3
AUT 158	Internal Combustion Engine Fundamentals	3
AUT 241	Gasoline Engine Overhaul Procedures	4
AUT 252	Fuel Injection Systems	3
AUT 254	Automatic Transmissions & Transaxles	3
AUT 255	Manual Transmissions & Differentials	3
AUT 247	Internship or AUT 248 or AUT 249	4
AUT 248	Co-op Educational Experience	4
AUT 249	Automotive Electrical Technology	4
IET 101	Introduction to Automotive and Diesel Electronics	3
<b>General Ed</b>	ucation Core (20 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
ENG 212	Public Speaking	3
MAT 101	College Algebra I and Trigonometry	3
Electives (5	/6 Credits)	5/6
Other Requ	irements	
SS 101	Student Success Seminar	1
Minimum Credits to Graduate		62

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation.

### Automotive Technology Associate in Applied Science (AAS) Semester Program Outline

		Credits
Semester 1 VMR 141	Introduction to Vehicle Maintenance & Repair Technology	3
VMR 141 VMR 142	Brake Systems	3
VMR 143	Steering and Suspension Systems	3
IET 101	Introduction to Automotive & Diesel Electronics	3
CPT 101	Microcomputer I	3
SS 101	Student Success Seminar	1
S 2		16
Semester 2 VMR 144	Electrical & Electronic Systems	3
AUT 155	Engine Performance & Emissions	3
AUT 158	Internal Combustion Engine Fundamentals	3
BUS 101	Introduction to Business	3
ENG 101	English Composition I	3
MAT 101	College Algebra I and Trigonometry	3
		18 34
First Year To	First Year Totals	
Semester 3		
AUT 241	Gasoline Engine Overhaul Procedures	4
AUT 252	Fuel Injection Systems	3
AUT 254	Automatic Transmissions & Transaxles	3
ENG 212	Public Speaking	3
	Elective	3
Composton 4		16
Semester 4 AUT 255	Manual Transmissions & Differentials	3
VMR 245	HVAC Vehicle Systems	3
AUT 247	Internship or AUT 248 or AUT 249	4
AUT 248	Co-op Educational Experience	4
AUT 249	Automotive Electrical Technology	4
	Elective	2/3
	T	12/13
Second Year		28/29
Program Totals  Minimum Guadita to Guaduata		62/63
Minimum Credits to Graduate		62

### **Biomedical Equipment Technology (AAS)**

### **Program Objective**

The Biomedical Equipment Technology program prepares students as entry-level biomedical technicians with skills training that includes medical terminology and human physiology principles, as well as the maintenance and support, planning and acquisition, and installation of medical equipment according to standards and guidelines.

#### **Career Opportunities**

Graduates work as technicians and sales representatives in the field of Healthcare Technology Management (HTM). Typical employers in this field are hospitals; medical centers; contract maintenance firms; dental, medical, and optical facilities; computer, electronic and medical instrumentation manufacturers.

#### **Program Goals**

- Graduates will possess the skills necessary to obtain an entry-level Biomedical Technician position.
- Graduates have proven their understanding of many of the requirements of healthcare technology management, such as maintenance, repair, and record-keeping for medical equipment.
- Graduates have proven competence with biomedical test equipment and basic testing techniques on common medical devices through hands-on competency tests.

### **Special Enrollment Requirements**

Prior to the start of the first semester, students must provide proof of a criminal background check and hepatitis B vaccination. Proof of a PPD two-step testing (TB test) is required prior to the start of the student's second year.

#### **Internship/Cooperative Education Experience**

A 200 hour internship or cooperative education experience at an approved site is a requirement for graduation and must be completed in the last semester of the second year. Continuation of internship past the end of semester is permitted with prior approval. Students must satisfy the internship requirements of both Johnson College and the internship provider. Students are required to make their own arrangements for internship, which may be outside the local area. Students must have a cumulative GPA of 2.00 to qualify for an internship.

Many internship sites require proof of current health care coverage, criminal, child abuse and FBI background checks, and/or drug and nicotine tests. Internship sites may bar

students from an internship if a criminal record exists or a drug/nicotine test has a positive result. Johnson College cannot guarantee internship placement. Costs for travel to and from an internship site are the responsibility of the student. Internships are typically unpaid.

### **Pregnancy Policy**

It is the student's choice whether or not to inform the Department Chairperson of a pregnancy. If a student chooses not to do so, no accommodations can be made regarding the student's internship assignment or program of study. Students who choose to disclose their pregnancy should contact the Department Chair.

### Biomedical Equipment Technology Major Courses (45 Credits)

EET 111\	DC Electricity and Instrumentation	3
EET 112	Alternating Current and Passive Devices	3
EET 113	Introduction to Semiconductors	3 3
EET 114	Integrated Circuits & Thyristors	
EET 115	Digital Electronics I	3
EET 106	Digital Electronics II	4
BET 201	Medical Equipment Standards and Testing	4
BET 203	Physiological Monitoring Devices	4
BET 204	Life Support Systems	4
BET 215	Specialized Medical Systems	3
BET 207	Internship or BET 208	4
BET 208	Co-op Educational Experience	4
CIT 163	Network Architectures, Principles, and Protocols	4
PHA 201	Physiology and Anatomy	3
<b>General Ed</b>	ucation Core (21 Credits)	
CHE 101	Chemistry I	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3 3 3
ENG 212	Public Speaking	
MAT 101	College Algebra I and Trigonometry	3
MAT 201	College Algebra II and Trigonometry	3
PHY 101	Introductory Physics	3
Other requ	irements	
SS 101	Student Success Seminar	1
Minimum Credits to Graduate		67

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation.

### Biomedical Equipment Technology Associate in Applied Science (AAS) Semester Program Outline

	S	Credits
Semester 1		
EET 111	DC Electricity and Instrumentation	3
EET 112	Alternating Current and Passive Devices	3
EET 115	Digital Electronics I	3 3
CHE 101	Chemistry I	
MAT 101	College Algebra I and Trigonometry	3
SS 101	Student Success Seminar	1
S 4 3		16
Semester 2 EET 106	Digital Electronics II	1
EET 100	Digital Electronics II Introduction to Semiconductors	4
EET 113 <b>EET</b> 114	Integrated Circuits & Thyristors	3 3 3 3
ENG 101	English Composition I	3
PHA 201	Physiology and Anatomy	3
PHY 101	Introductory Physics	3
1111 101	introductory i hysics	19
First Year T	otals	35
Semester 3		
BET 201	Medical Equipment Standards and Testing	4
BET 203	Physiological Monitoring Devices	4
CIT 163	Network Architectures, Principles, and Protocols	4
CPT 101	Microcomputer I	3
MAT 201	College Algebra II & Trigonometry	3
		18
Semester 4	T.C.C.	4
BET 204	Life Support Systems	4
BET 215	Specialized Medical Systems	3
BET 207	Internship or BET 208	4
BET 208 ENG 212	Co-op Educational Experience	4 3
ENG 212	Public Speaking	3 14
		14
Second Year	r Totals	32
Program Totals		67
Minimum Credits to Graduate		67

## **Business Management** – Logistics & Supply Chain Management Track (AAS)

### **Program Objective**

Supply Chain Management prepares students for industry certification exams and entry-level management positions in the field of supply chain management. Careers include inventory management, master resource planning, scheduling and planning, transportation logistics management, route planning, physical distribution management, transportation marketing, customer service, procurement, quality control and operations management. Typical employers include warehousing and transportation distributors, large manufacturing facilities, retail and wholesale distributors.

### **Career Opportunities**

Typical employers include warehousing and transportation distributors, large manufacturing facilities, government, third party logistics, retail and wholesale distributors.

### **Program Goals**

- Graduates will possess the skills necessary to obtain industry certification and entry-level positions in business management, logistics, transportation, warehousing, supply-chain management, or operations.
- Graduates will understand the importance of general business management subjects as well as specific knowledge of information critical to success in the field.
- Graduates will possess the appropriate skills needed for supervision, decisionmaking, project management, and critical thinking, allowing for advancement into supervisory positions.
- Graduates will be able to recognize areas for improvement that will lead to cost reductions and provide logistical advantages over the competition.

### **Internship/Cooperative Education Experience**

A 200 hour internship or cooperative education experience at an approved site may be completed after a student has completed 30 credits and receives approval from the Department Chairperson. Students must satisfy the internship requirements of both Johnson College and the internship provider as a condition of graduation. Students must have a cumulative GPA of 2.00 to meet the minimum qualification for internship through Johnson College. Some internship sites may require students to obtain a higher GPA in their agreement. Some internship sites may also require proof of current health care coverage, a criminal background check, and/or a drug test. Internship sites may bar students from an internship if a criminal record exists or a drug test has a positive result. Costs for travel to and from an internship site are the responsibility of the student. The

schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site.

### **Pregnancy Policy**

It is the student's choice whether or not to inform the Department Chairperson of a pregnancy. If a student chooses not to do so, no accommodations can be made regarding the student's internship assignment or program of study. Students who choose to disclose their pregnancy should contact the Department Chair.

### Business Management – Logistics & Supply Chain Management Track Major Courses (43 Credits)

LOG 191	Basics of Supply Chain Management	3
LOG 192	Transportation Management	3
LOG 194	Warehousing and Distribution	3 3
LOG 195	Production and Inventory Control	
LOG 291	Total Quality Management	3
LOG 294	International Logistics	3
LOG 297	Internship or	4
LOG 298	Co-op Educational Experience	4
ACC 101	Accounting I	3
BSL 201	Business Law	3
BUS 101	Introduction to Business	3 3 3 3 3 3
BUS 201	Project Management	3
ECO 211	Introduction to Macroeconomics	3
MNG 185	Principles of Management	
MNG 284	Management and Supervision	3
General Ed	lucation Courses (21 Credits)	
CPT 101	Microcomputer I	3
ECO 111	Introduction to Microeconomics	3
ENG 101	English Composition I	3 3 3 3 3
ENG 212	Public Speaking	3
HMN 101	Introduction to Humanities	3
MAT 121	Introduction to Statistics	
SOC 101	Introduction to Sociology	3
Other requ	irements	
SS 101	Student Success Seminar	1
Minimum (	Credits to Graduate	65

### **Business Management -**

# Logistics & Supply Chain Management Track Associate in Applied Science (AAS) Semester Program Outline

		Credits
Semester 1		
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ECO 111	Introduction to Microeconomics	3
ENG 101	English Composition I	3
SOC 101	Introduction to Sociology	3
SS 101	Student Success Seminar	1
		16
Semester 2		
LOG 191	Basics of Supply Chain Management	3
LOG 192	Transportation Management	3
ECO 211	Introduction to Macroeconomics	3
ENG 212	Public Speaking	3
MAT 121	Introduction to Statistics	3
		15
First Year To	otals	31
Semester 3		
ACC 101	Accounting I	3
BUS 201	Project Management	3
HMN 101	Introduction to Humanities	3
LOG 194	Warehousing and Distribution	3
LOG 195	Production and Inventory Control	3
MNG 185	Principles of Management	3
		18
Semester 4		
BSL 201	Business Law	3
LOG 291	Total Quality Management	3
LOG 294	International Logistics	3
LOG 297	Internship or LOG 298	4
LOG 298	Co-op Educational Experience	
MNG 284	Management and Supervision	3
		16
<b>Second Year</b>		34
Program Totals		65
Minimum Credits to Graduate		65

## **Business Management - Project Management Track (AAS)**

### **Program Objective**

Students successfully completing this program will be able to demonstrate the skills necessary for entry-level employment in a variety of business and management settings, including utilities, manufacturing, merchandising, retail, sales, construction, consulting, government, supply chain and non-profit organizations. More advanced program outcome skills include project and business design, budgeting, team management, project management, and project evaluation.

### **Career Opportunities**

Careers can lead to a variety of entry and supervisory level positions in construction, architectural firms, sales, customer service, office management, supply chain and project management organizations. Potential job titles include project coordinator, project administrator, and sales or customer service supervisor. Students who continue to work in the field can look forward to positions like scheduler, cost estimator, sales manager, and procurement planner. The degree also offers career enhancement through the addition of marketable skills in one's current field of employment.

### **Program Goals**

- Possess the skills necessary to obtain industry certification and entry-level positions in business.
- Possess the appropriate skills needed for supervision, decision-making, project management, and critical thinking, allowing for advancement into supervisor positions.
- Graduates will be able to recognize areas for improvement that will lead to cost reductions and provide advantages over the competition.

#### **Pregnancy Policy**

It is the student's choice whether or not to inform the Department Chairperson of a pregnancy. If a student chooses not to do so, no accommodations can be made regarding the student's internship assignment or program of study. Students who choose to disclose their pregnancy should contact the Department Chair.

### Business Management – Project Management Track Major Courses (42/43 Credits)

LOG 191	Basics of Supply Chain Management or ADT 223	3
ADT 223	Codes and Ordinances	3
LOG 195	Production and Inventory Control or ADT 220	3
ADT 220	Building Information and Modeling	4
LOG 291	Total Quality Management	3
ACC 101	Accounting I	3
BSL 201	Business Law	3
BUS 101	Introduction to Business	3
BUS 110	Business Research and Reporting	3
BUS 201	Project Management	3
BUS 210	Sales Negotiation and Customer Relationship	3
BUS 220	Advanced Project Management	3 3 3 3 3 3 3 3 3 3 3
CPT 210	Advanced Microcomputers	3
ECO 211	Introduction to Macroeconomics	
MNG 185	Principles of Management	3
MNG 284	Management and Supervision	3
General Ed	ucation Courses (21 Credits)	
CPT 101	Microcomputer I	3
ECO 111	Introduction to Microeconomics	3
ENG 101	English Composition I	3 3 3
ENG 212	Public Speaking	3
MAT 101	College Algebra I and Trigonometry	3
MAT 121	Introduction to Statistics	3
HMN 101	Introduction to Humanities or SOC 101	3
SOC 101	Introduction to Sociology	3
Other requ	irements	
SS 101	Student Success Seminar	1
Minimum Credits to Graduate		64

### Business Management – Project Management Track Associate in Applied Science (AAS)

	Compostor Duogram Ontline	C 1'4-
0	Semester Program Outline	Credits
Semester 1		
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ECO 111	Introduction to Microeconomics	3
ENG 101	English Composition I	3
HMN 101	Introduction to Humanities or SOC 101	3
SOC 101	Introduction to Sociology	3
SS 101	Student Success Seminar	1
		16
Semester 2		
BUS 110	Business Research and Reporting	3
ECO 211	Introduction to Macroeconomics	3
ENG 212	Public Speaking	3 3 3
MAT 101	College Algebra I and Trigonometry	3
MAT 121	Introduction to Statistics	3
		15
First Year Totals		31
Semester 3		
ACC 101	Accounting I	3
ADT 223	Codes and Ordinances or LOG 191	3
LOG 191	Basics of Supply Chain Management	3
BUS 210	Sales Negotiation and Customer Relationship	3
ADT 220	Building Information and Modeling or LOG 195	4
LOG 195	Production and Inventory Control	3
BUS 201	Project Management	3
MNG 185	Principles of Management	3
		18/19
Semester 4		10/12
BSL 201	Business Law	3
BUS 220	Advanced Project Management	3
CPT 210	Advanced Microcomputers	3
LOG 291	Total Quality Management	3
MNG 284	Management and Supervision	3
141110 201	Training ement and supervision	15
		13
Second Year	Totals .	33/34
Program To		64/65
Minimum Credits to Graduate		64
Minimum Creatis to Graduate		V <del>1</del>

### **Carpentry & Cabinetmaking Technology (AAS)**

### **Program Objective**

The Carpentry & Cabinetmaking Technology program prepares students as entry-level trades people in the layout, estimation, and construction of residential construction including the installation of trim, furniture, stairs, and cabinets. The skill set would also include weatherization installers and technicians and conservation retrofitters. Leadership and management skills are stressed. Students work with industry standard tools and equipment such as table saws, jointers, power tools, hand tools, pneumatic nailers, and laser levels.

### **Career Opportunities**

Graduates work as rough and finish carpenters, cabinetmakers, mill workers, building product representatives, and custom woodworkers.

Typical employers in the carpentry and cabinetmaking career field are residential, commercial, and industrial construction companies; remodeling contractors; cabinet and showcase manufacturers; mill-work companies and lumber yards; wholesale and retail building product suppliers; modular home manufacturers; large institutional, business, and industrial complexes; and architectural engineering firms.

### **Program Goals**

- The carpentry and cabinet making program will prepare the student for entry level employment in a variety of fields of construction.
- The program will cover residential construction from the "ground to the clouds" and does so with an emphasis on safety first.
- The student will use hand, portable and stationary machines that can be found on construction sites or in cabinet shops.
- The student will examine the pre-planning phases of construction through the sale of the structure and apply sound customer relation practices.

#### **Special Fees**

In addition to tuition and fees, Carpentry students will have an additional fee of \$650 to cover the cost of supplies and materials used in the hands-on learning process.

### **Pregnancy Policy**

It is not required to tell the instructor if you are pregnant but it is highly recommended because of the lifting and other requirements of the program that may jeopardize the health of the mother and fetus.

### Carpentry and Cabinetmaking Technology Major Courses (40 Credits)

CCM 120	Woodworking Hand and Portable Tools & Materials	3
CCM 121	Woodworking Tools and Machines	3
CCM 122	Kitchen & Bath Design Standards	1
CCM 123	Mathematics for Carpenters	1
CCM 124	Introduction to Print Reading and Interpretation	1
CCM 125	Cabinet Shop Drawing Fundamentals	1
CCM 126	Interior Finishes	3
CCM 127	Cabinet and Component Construction	3
CCM 128	Exterior Finishes	3
CCM 220	Residential Construction Prints	1
CCM 221	Site Layout & Foundations	3
CCM 222	Stairs	3
CCM 223	Floor/Wall Framing Principles	3
CCM 224	Roof Framing	3 3 3 3
CCM 225	Advanced Roof Framing	3
CCM 226	Construction Estimating	3
CCM 227	Commercial Construction Prints	1
CCM 228	Construction Safety	1
General Edu	cation Core (20 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3 3 3
ENG 212	Public Speaking	3
MAT 101	College Algebra I and Trigonometry	
MAT 110	Trigonometry	3
Electives (2/3	3 Credits)	2/3
Other requir	rements	
SS 101	Student Success Seminar	1
Minimum C	redits to Graduate	61

### Carpentry & Cabinetmaking Technology Associate in Applied Science (AAS) Semester Program Outline

Semester 1CCM 120Woodworking Hand and Portable Tools & Materials3CCM 121Woodworking Tools and Machines3CCM 122Kitchen & Bath Design Standards1CCM 123Mathematics for Carpenters1CCM 124Introduction to Print Reading and Interpretation1CPT 101Microcomputer I3MAT 101College Algebra I and Trigonometry3SS 101Student Success Seminar1Semester 2
CCM 121Woodworking Tools and Machines3CCM 122Kitchen & Bath Design Standards1CCM 123Mathematics for Carpenters1CCM 124Introduction to Print Reading and Interpretation1CPT 101Microcomputer I3MAT 101College Algebra I and Trigonometry3SS 101Student Success Seminar1
CCM 122Kitchen & Bath Design Standards1CCM 123Mathematics for Carpenters1CCM 124Introduction to Print Reading and Interpretation1CPT 101Microcomputer I3MAT 101College Algebra I and Trigonometry3SS 101Student Success Seminar1
CCM 123Mathematics for Carpenters1CCM 124Introduction to Print Reading and Interpretation1CPT 101Microcomputer I3MAT 101College Algebra I and Trigonometry3SS 101Student Success Seminar1
CCM 124Introduction to Print Reading and Interpretation1CPT 101Microcomputer I3MAT 101College Algebra I and Trigonometry3SS 101Student Success Seminar116
CPT 101 Microcomputer I 3 MAT 101 College Algebra I and Trigonometry 3 SS 101 Student Success Seminar 1 16
MAT 101 College Algebra I and Trigonometry 3 SS 101 Student Success Seminar 1 16
SS 101 Student Success Seminar 1 16
16
Semester /
1 0
CCM 127 Cabinet and Component Construction 3 CCM 128 Exterior Finishes 3
CCM 128 Exterior Finishes 3 BUS 101 Introduction to Business 3
ENG 101 English Composition I 3
First Year Totals 32
Semester 3
CCM 220 Residential Construction Prints 1
CCM 221 Site Layout & Foundations 3
CCM 223 Floor/Wall Framing Principles 3
CCM 224 Roof Framing 3
MAT 110 Trigonometry 3
Elective 2/3
15/16
Semester 4
CCM 222 Stairs 3
CCM 225 Advanced Roof Framing 3
CCM 226 Construction Estimating 3
CCM 227 Commercial Construction Prints 1
CCM 228 Construction Safety 1
ENG 212 Public Speaking 3
14
Second Year Totals 29/30
Program Totals 61/62
Minimum Credits to Graduate 61

### **Computer Information Technology (AS)**

### **Program Objective**

The Computer Information Technology Program prepares students as entry-level technicians for the maintenance, repair, and troubleshooting of the hardware and software used in today's local and wide area computer networking and information systems.

### **Career Opportunities**

Typical employers are any business or industry using information technology today. Some examples of these are banks, hospitals, educational institutions, government facilities, mail order facilities, retail chains, school districts, and manufacturing facilities. Students work with current industry standard computers, and computer networks.

### **Program Goals**

- Graduates will possess the appropriate skills needed for entering the Computer Information Technology field.
- Graduates will learn the importance of good communications skills with all areas of a project.
- Graduates will develop critical thinking skills for troubleshooting various hardware and software issues.

### **Pregnancy Policy**

It is not required to tell the instructor if you are pregnant but it is highly recommended because of the lifting and other requirements of the program that may jeopardize the health of the mother and fetus.

### Computer Information Technology Major Courses (41/42 Credits)

CIT 160	Computer Hardware and Operating Systems	4
CIT 163	Network Architectures, Principles, and Protocols	4
CIT 164	TCP/IP Network Design Configuration and Maintenance	4
CIT 166	Linux Networking Service and Support	4
CIT 175	Information System Security Design and Administration	3
CIT 261	LAN/WAN Design and Maintenance Principles	4
CIT 270	Web Programming, Client Side Scripting	3
CIT 271	Web Programming, Server Side Scripting	3
CIT 272	Server and Network Operating System Principles	3
CIT 273	Advanced Network Operating System Principles	3
CIT 266	Internetworking Applications	4
	or CIT 267 or CIT 268 or CIT 271	
CIT 267	Internship	4
CIT 268	Co-op Educational Experience	4
PRG 101	Programming for the Enterprise	3
General Edu	cation Core (21 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
DAT 201	Database: Principles & Applications	3
ENG 101	English Composition I	3
ENG 212	Public Speaking	3
MAT 101	College Algebra I and Trigonometry	3
MAT 201	College Algebra II and Trigonometry	3
Other requir	rements	
SS 101	Student Success Seminar	1
Minimum Cı	Minimum Credits to Graduate	

# Computer Information Technology Associate in Science (AS) Semester Program Outline

	Semester Frogram Outline	
		Credits
Semester 1		
CIT 160	Computer Hardware and Operating Systems	4
CIT 163	Network Architectures, Principles, and Protocols	4
PRG 101	Programming for the Enterprise	3 3
BUS 101	Introduction to Business	
ENG 101	English Composition I	3
SS 101	Student Success Seminar	1
6 4 2		18
Semester 2	TOD/IDNI . 1 D . C C 1M	4
CIT 164	TCP/IP Network Design Configuration and Maintenance	4
CIT 166	Linux Networking Service and Support	4
CIT 175	Information System Security Design and Administration	3
CPT 101	Microcomputer I	3
MAT 101	College Algebra I and Trigonometry	3
First Year To	tole	17 35
riist rear 10	tais	33
Semester 3		
CIT 261	LAN/WAN Design and Maintenance Principles	4
CIT 272	Server and Network Operating System Principles	3
BUS 201	Project Management	
DAT 201	Database: Principles & Applications	3 3
MAT 201	College Algebra II and Trigonometry	3
	conege ingesta it and ingenemous	16
Semester 4		
CIT 270	Web Programming, Client Side Scripting	3
CIT 273	Advanced Network Operating System Principles	3
CIT 266	Internetworking Applications	4
	or CIT 267 or CIT 268 or CIT 271	
CIT 267	Internship	4
CIT 268	Co-op Educational Experience	4
CIT 271	Web Programming, Server Side Scripting	3
ENG 212	Public Speaking	3
		12/13
Second Year Totals		28/29
Program Totals		63/64
Minimum Credits to Graduate		63

### **Diesel Truck Technology (AAS)**

### **Program Objective**

The Diesel Truck Technology program prepares students as entry-level technicians with the latest information on diagnosis, repair procedures, preventive maintenance, and necessary safety applications in diesel technology. The course prepares students to take the voluntary mechanic certification test (ASE) in heavy-duty trucks. Graduates work as tune-up, brakes, transmission and refrigeration technicians; diesel truck repair and fleet maintenance technicians; service writing technicians; and sales and service representatives.

### **Career Opportunities**

Typical employers of diesel truck technicians are truck, farm, and earth-moving equipment dealerships; trucking, power generation, and construction companies; truck service centers; engine repair/machine shops; truck equipment distributors; independent service garages; automotive parts manufacturers; sales representatives; and insurance companies.

#### **Program Goals**

- Graduates will possess the appropriate skills and safety awareness that are needed for decision-making, critical thinking for entry into the Diesel Truck Technology field.
- Graduates will understand the importance of professional behavior and life-long learning within the Diesel Truck Industry.
- Graduates will meet the needs of the Diesel Truck Technology field. Graduates will be provided the skills that will provide them the opportunities in various areas of the diesel profession.

#### **Special Fees**

In addition to tuition, students are responsible for a testing fee of \$226 that is charged at the beginning of the senior's last semester of school. This fee covers industry specific testing.

#### **Pregnancy Policy**

It is not required to tell the instructor if you are pregnant but it is highly recommended because of the lifting and other requirements of the program that may jeopardize the health of the mother and fetus.

### Diesel Truck Technology Major Courses (42 Credits)

VMR 141	Introduction to Vehicle Maintenance & Repair Tech.	3	
VMR 142	Brake Systems	3	
VMR 143	Steering and Suspension Systems	3	
VMR 144	Electrical & Electronic Systems	3	
DTT 146	Diesel Engine Overhaul	4	
DTT 155	Diesel Fuel Injection Systems	3	
DTT 241	Diesel Engine Performance and	4	
	Tune-up Procedures		
DTT 252	Manual Transmission Overhaul	3	
DTT 253	Differentials and Drive Line	3	
DTT 254	Automatic Transmission Diagnostics, Basic Hydraulics	3	
VMR 245	HVAC Vehicle Systems	3	
DTT 246	Applied Diesel Truck Principles and Applications	4	
	or DTT 247 or DTT 248		
DTT 247	Internship	4	
DTT 248	Co-op Educational Experience	4	
IET 101	Introduction to Automotive and Diesel Electronics	3	
General Edu	ication Core (15 Credits)		
BUS 101	Introduction to Business	3	
CPT 101	Microcomputer I	3	
MAT 101	College Algebra I and Trigonometry	3 3 3	
ENG 101	English Composition I		
ENG 212	Public Speaking	3	
Electives (5/	6 Credits)	5/6	
Other requi	rements		
SS 101	Student Success Seminar	1	
Minimum C	Minimum Credits to Graduate		

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation.

### Diesel Truck Technology Associate in Applied Science (AAS) Semester Program Outline

		Credits
Semester 1 VMR 141	Introduction to Vehicle Maintenance & Repair Tech.	3
VMR 141 VMR 142	Brake Systems	3
VMR 143	Steering and Suspension Systems	3
IET 101	Introduction to Automotive & Diesel Electronics	3
CPT 101	Microcomputer I	3
SS 101	Student Success Seminar	1
G 4 3		16
Semester 2 VMR 144	Electrical & Electronic Systems	3
DTT 155	Diesel Fuel Injection Systems	3
DTT 146	Diesel Engine Overhaul	4
ENG 101	English Composition I	3
MAT 101	College Algebra I and Trigonometry	3
		16
First Year To	tals	32
Semester 3		
DTT 241	Diesel Engine Performance and Tune-up Procedures	4
DTT 252	Manual Transmission Overhaul	3
DTT 253	Differentials and Drive Line	3
BUS 101	Introduction to Business	3
ENG 212	Public Speaking	3
	Elective	3
		19
Semester 4	And and in Transmissis and Discounties Design Hardward	2
DTT 254 VMR 245	Automatic Transmission Diagnostics, Basic Hydraulics	3 3
DTT 246	HVAC Vehicle Systems Applied Diesel Truck Principles and Applications	3 4
D11 240 •	or DTT 247 or DTT 248	4
DTT 247	Internship	4
DTT 248	Co-op Educational Experience	4
	Elective	2/3
		12/13
Second Year Totals		
Program Totals		31/32 63/64
Minimum Credits to Graduate		63
Minimum Creates to Graduate		

### **Electrical Construction & Maintenance Technology (AAS)**

### **Program Objective:**

The Electrical Construction and Maintenance Technology program prepares students as entry-level technicians for the operation, inspection, installation, calibration, repair, maintenance and safety of residential and commercial electrical equipment.

### **Career Opportunities:**

Graduates work as residential and commercial electricians, industrial engineering technicians in production environments. Graduates will also be prepared as quality assurance technicians, linemen or technicians for the power industry. Typical employers in the electrical field are telecommunications companies, utilities, Union and Non-union electrical companies and manufacturing companies.

### **Program Goals:**

- The student will be prepared as an entry-level technician in the electrical construction and maintenance industry
- Graduates will demonstrate safe electrical practices and understand how important they are in the electrical environment.
- Graduates will acquire a foundation of education and skills for career advancement and lifelong learning.

### **Pregnancy Policy**

It is not required to tell the instructor if you are pregnant but it is highly recommended because of the lifting and other requirements of the program that may jeopardize the health of the mother and fetus.

### Electrical Construction & Maintenance Technology Major Courses (41 Credits)

ECM 121	Fundamentals of Electricity	3
ECM 122	Introduction to Residential Wiring	3
ECM 123	Principles & Applied Practices of Residential Wiring	
ECM 124	Advanced Residential Circuit Installation	3
ECM 125	Service Installation & Troubleshooting	3
ECM 126	Commercial Wiring	3
ECM 221	Industrial Motor Control	3
ECM 222	Advanced Motor Control Circuits	3 3 3
ECM 224	Industrial Maintenance I	
ECM 225	Industrial Maintenance II	3
ECM 206	Applied Practice and Special Topics	4
	or ECM 207 or ECM 208	
ECM 207	Internship	4
ECM 208	Co-op Educational Experience	4
AMT 221	Programmable Logic Controllers	4
CCM 220	Residential Construction Prints	1
CCM 227	Commercial Construction Prints	1
CCM 228	Construction Safety	1
General Edu	cation Core (20 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
ENG 211	Communication Theory	3
or ENG 212	Public Speaking	
MAT 101	College Algebra I and Trigonometry	3
MAT 201	College Algebra II and Trigonometry	3
Electives (2/3		2/3
Other requir	ements	
SS 101	Student Success Seminar	1
Minimum Cr	Minimum Credits to Graduate	

# **Electrical Construction & Maintenance Technology Associate in Applied Science (AAS)**

	Semester Program Outline	Credits
Semester 1	C	
ECM 121	Fundamentals of Electricity	3
ECM 122	Introduction to Residential Wiring	3
ECM 126	Commercial Wiring	3
CCM 220	Residential Construction Prints	1
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
SS 101	Student Success Seminar	1
		17
Semester 2		
ECM 123	Principles & Applied Practices of Residential Wiring	3
ECM 124	Advanced Residential Circuit Installation	3
ECM 125	Service Installation & Troubleshooting	3
CCM 227	Commercial Construction Prints	1
BUS 101	Introduction to Business	3
MAT 101	College Algebra I and Trigonometry	3
		16
First Year To	tals	33
Semester 3		
AMT 221	Programmable Logic Controllers	4
ECM 221	Industrial Motor Control	3
ECM 224	Industrial Maintenance I	3
ENG 211	Communication Theory	3
or ENG 212	Public Speaking	
MAT 201	College Algebra II and Trigonometry	3
<b>a</b>		16
Semester 4		2
ECM 222	Advanced Motor Control Circuits	3
ECM 225	Industrial Maintenance II	3
CCM 228	Construction Safety	1
ECM 206	Applied Practice and Special Topics	4
ECM 207	or ECM 207 or ECM 208	1
ECM 207	Internship	4
ECM 208	Co-op Educational Experience	4 2/3
	Elective	2/3
Second Vega Totals		13/14
Second Year Totals  Program Totals		29/30 62/63
Program Totals  Minimum Condita to Conducts		62/63 62
Minimum Credits to Graduate		

### **Electronic Engineering Technology (AAS)**

### **Program Objective**

The Electronic Technology program prepares graduates as entry-level technicians. Students will become proficient in the theoretical and practical applications associated with electronic devices, instrumentation controls, and systems.

### **Career Opportunities**

Graduates work as technicians and sales representatives in the field of electronic instrumentation and computer repair. Typical employers in the electronic career are machine, tool, and instrumentation manufacturers; electronic service companies; communication industries; electronic media; and electronic sales.

### **Program Goals**

- Graduates will be able to troubleshoot electronic circuits and systems using theoretical principles and measured values to resolve operational issues.
- Graduates will demonstrate the ability to communicate with a customer, team member or supervisor in a professional manner to determine the nature of a problem or to explain repairs.
- Graduates will be able to use hand tools and test equipment in a safe manner.

### **Pregnancy Policy**

It is the student's choice whether or not to inform the Department Chairperson of a pregnancy. If a student chooses not to do so, no accommodations can be made regarding the student's internship assignment or program of study. Students who choose to disclose their pregnancy should contact the Department Chair.

### Electronic Engineering Technology Major Courses (48 Credits)

EET 111	DC Electricity and Instrumentation	3
EET 112	Alternating Current and Passive Devices	3
EET 113	Introduction to Semiconductors	3
EET 114	Integrated Circuits and Thyristors	3
EET 115	Digital Electronics I	3
EET 106	Digital Electronics II	4
EET 211	Communication Electronics	3
EET 213	Industrial Electronics	3
EET 205	Introduction to Automation & Robotics	4
EET 206	Applied Electronics Principles & Applications	
	or EET 207 or EET 208	4
EET 207	Internship	4
EET 208	Co-op Educational Experience	4
AMT 221	Programmable Logic Controllers	4
AMT 223	Automation & Robotics	4
BRT 105	Blueprint/Schematic Reading	3
CIT 163	Network Architectures, Principles, and Protocols	4
General Ed	ucation Core (20 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3 3 3
ENG 212	Public Speaking	3
MAT 101	College Algebra I and Trigonometry	
MAT 201	College Algebra II and Trigonometry	3
Elective (2/3 Credits)		2/3
Other requ	irements	
SS 101	Student Success Seminar	1
Minimum Credits to Graduate		65

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation

### Electronic Engineering Technology Associate in Applied Science (AAS) Semester Program Outline

		Credits
Semester 1 EET 111 EET 112 EET 115 CPT 101 MAT 101 SS 101	DC Electricity and Instrumentation Alternating Current and Passive Devices Digital Electronics I Microcomputer I College Algebra I and Trigonometry Student Success Seminar	3 3 3 3 1 16
Semester 2	Distant Flores and an H	
EET 106	Digital Electronics II	4
EET 113 EET 114	Introduction to Semiconductors	3 3
BRT 105	Integrated Circuits and Thyristors Blueprint/Schematic Reading	3
ENG 101	English Composition I	3
LIVO IVI	Elective	2/3
		18/19
First Year Totals		34/35
Semester 3		
AMT 221	Programmable Logic Controllers	4
EET 211	Communication Electronics	3
EET 213	Industrial Electronics	3
ENG 212	Public Speaking	3
MAT 201	College Algebra II and Trigonometry	3
Semester 4		16
AMT 223	Automation & Robotics	4
CIT 163	Network Architectures, Principles, and Protocols	4
EET 206	Applied Electronics Principles & Applications	4
	or EET 207 or EET 208	
EET 207	Internship	4
EET 208	Co-op Educational Experience	4
BUS 101	Introduction to Business	3
		15
Second Year Totals		31
Program Totals  Minimum Credits to Creducts		65/66
Minimum Credits to Graduate		65

### **Heating Ventilation & Air Conditioning Technology (AAS)**

### **Program Objective**

The Heating Ventilation and Air Conditioning program is to provide students with the skills needed for entry-level positions in the installing, repairing and troubleshooting various heating and cooling equipment. Students will work with industrial standard tools associated with equipment such as oil and gas furnaces, refrigeration units, and air conditioning equipment.

### **Career Opportunities**

Graduates can work as HVAC Installers, Controls Technicians, Service Technicians, Maintenance Mechanics and Plumbers.

Typical employers in the HVAC trade career include custom job shops; research laboratories; wholesale and retail sales.

### **Program Goals**

- Graduates will possess the skills necessary to obtain an entry-level position.
- Graduates will have an understanding of safe HVAC practices and how important they are in the HVAC environment.
- Graduates will understand the importance of professional behavior and life-long learning, and will meet the challenges of continued technological growth within the field.

### **Special Fees**

In addition to tuition and fees, HVAC students will have an additional fee of \$650 to cover the cost of supplies and materials used in the hands-on learning process. A onetime EPA certification fee of \$100 will be charged prior to the start of their senior year.

#### **Pregnancy Policy**

It is not required to tell the instructor if you are pregnant but it is highly recommended because of the lifting and other requirements of the program that may jeopardize the health of the mother and fetus.

### Heating Ventilation & Air Conditioning Technology Major Courses (41 Credits)

Minimum Credits to Graduate		63
SS 101	Student Success Seminar	1
Other require	ements	
PHY 101	Introductory Physics	3
MAT 201	College Algebra II and Trigonometry	3
MAT 101	College Algebra I and Trigonometry	3
ENG 211	Communication Theory	3
ENG 101	English Composition I	3
CPT 101	Microcomputer I	3
BUS 101	Introduction to Business	3
General Educ	cation Core (21 Credits)	
HAC 258	Co-op Educational Experience	4
HAC 257	Internship	4
	or HAC 257 or HAC 258	
HAC 256	Applied HVAC Principles and Applications	4
HAC 254	Refrigeration Applications Commercial Systems	4
HAC 251	Heating System Design & Installation	4
HAC 225	HVAC Controls II	3
HAC 223	Hydronic Heating Systems	3
HAC 222	HVAC Controls I	3
HAC 156	Air Conditioning Systems	4
HAC 155	HVAC/R Electricity II	3
HAC 154	Print Reading and Codes for HVAC	3
HAC 153	Pipefitting	3
HAC 152	HVAC/R Electricity I	3
HAC 151	Introduction to Refrigeration	4

### Heating Ventilation & Air Conditioning Technology Associate in Applied Science (A.A.S.) Semester Program Outline

	<u> </u>	Credits
Semester 1	I de la companya de l	4
HAC 151 HAC 152	Introduction to Refrigeration	4 3
HAC 152	HVAC/R Electricity I Pipefitting	3
ENG 101	English Composition I	3
MAT 101	College Algebra I and Trigonometry	3
SS 101	Student Success Seminar	1
		17
Semester 2		
HAC 154	Print Reading and Codes for HVAC	3
HAC 155	HVAC/R Electricity II	3
HAC 156	Air Conditioning Systems	4
CPT 101	Microcomputer I	3
PHY 101	Introductory Physics	3
First Year To	tals	16 33
riist rear 10	tais	33
Semester 3		
HAC 222	HVAC Controls I	3
HAC 223	Hydronic Heating Systems	3
HAC 251	Heating Systems Design & Installation	4
BUS 101	Introduction to Business	3
MAT 201	College Algebra II and Trigonometry	3
		16
Semester 4	HWA C Company to H	2
HAC 225 HAC 254	HVAC Controls II  Positionary Applications Commonical Systems	3 4
HAC 256	Refrigeration Applications Commercial Systems Applied HVAC Principles and Applications	4
11AC 230	or HAC 257 or HAC 258	7
HAC 257	Internship	
HAC 258	Co-op Educational Experience	
ENG 211	Communication Theory	3
	•	14
Second Year Totals		30
Program Totals		63
Minimum Credits to Graduate		63

### **Physical Therapist Assistant (AS)**

### **Program Objective**

The Physical Therapist Assistant program prepares students for entry-level positions in a variety of clinical settings. Graduates will be prepared to take the National Physical Therapy Exam for Physical Therapist Assistants.

### **Career Opportunities**

Physical therapy is a very rewarding and diverse profession. Practicing physical therapist assistants have the option to work in a variety of settings, including: hospitals, inpatient and outpatient rehabilitation settings, skilled nursing facilities, private practices, home health, and schools. PTAs can also teach in physical therapist assistant programs or if they choose, can further their education in a variety of related fields.

### **Program Mission Statement**

The mission of the Physical Therapist Assistant Program at Johnson College is to prepare students to be competent and caring entry-level physical therapist assistants who work under the direction and supervision of a physical therapist in a variety of settings. Students will be committed to developing and continuing professional competence, demonstrating lifelong learning, and adhering to the behavioral expectations outlined in the APTA Guide for Conduct and Standards of Ethical Conduct for the PTA.

#### What do Physical Therapist Assistants do?

Physical therapy plays a vital role in helping individuals achieve their optimal level of mobility and independence. Physical therapist assistants work under the direction and supervision of licensed physical therapists and work directly with patients to help improve quality of life. Physical therapist assistants must be well educated and personable.

### **Programmatic Accreditation**

The Physical Therapist Assistant Program at Johnson College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: http://www.capteonline.org.

#### **Program Goals/Outcomes**

The goals of the Johnson College Physical Therapist Assistant Program are as follows:

1. To prepare graduates to meet the professional and licensure requirements necessary to function as entry-level PTA's under the direction and supervision of a physical therapist in a variety of clinical settings.

Student Learning Outcomes:

**Outcome #1:** Students/graduates will exhibit conduct that reflects practice standards that are legal, ethical, and safe and that reflects a commitment to meet the expectations of members of society and members of the profession of physical therapy.

Outcome #2: Students/graduates will demonstrate competence implementing interventions identified in the plan of care under the direction and supervision of the physical therapist.

**Outcome #3:** Students/graduates will demonstrate competency performing components of data collection skills under the direction and supervision of the physical therapist.

**Outcome #4:** Students/graduates will recognize when interventions should be modified or not provided due to changes in the patient's status or due to violations in practice guidelines and report this to the supervising physical therapist.

**Outcome #5**: Students/graduates will communicate effectively with other health care providers and with patients, family members, and caregivers in order to achieve patient outcomes based on the physical therapy plan of care.

**Outcome #6:** Students/graduates will implement risk management strategies during all lab and clinical activities to ensure the safety of themselves and others.

**Outcome #7:** Students/graduates will complete thorough, accurate, logical, concise, timely, and legible documentation that meets the requirements of the facility.

**Outcome #8**: Graduates will pass the NPTAE at a rate consistent with CAPTE requirements within one year of graduation.

**Outcome #9:** Graduates who seek employment will be employed in the field within one year of graduation.

2. To ensure that educators of the program, both didactic and clinical provide instruction and guidance that meets the needs of the students and the program.

Outcome #1: Faculty will maintain current licensure in PA.

**Outcome #2:** Faculty will participate in continuing professional competence related to teaching responsibilities.

**Outcome #3:** Faculty will utilize effective instructional methods during didactic, laboratory, and clinical courses.

3. To provide students with a curriculum and resources that are current and in compliance with standards set forth by the Commission on Accreditation in Physical Therapy Education (CAPTE), by the American Physical Therapy Association (APTA), by the PA Physical Therapy state practice act, and by the institution.

Outcome #1: The curriculum will be reviewed annually by the Program Director, core faculty, and the Program Advisory Committee to ensure it is aligned with current requirements and practice trends.

**Outcome #2:** The program resources will be reviewed annually by the Program Director, core faculty, and the Program Advisory Committee to ensure adequacy to meet the needs of the program.

### **Special Admissions Requirements**

Admittance to the Physical Therapist Assistant Program at Johnson College is based on a selective admission process that has been developed to ensure that students who are admitted to the Johnson College PTA Program are prepared to succeed in the program and enter the work force as competent entry-level physical therapist assistants. Students are admitted based on their merit without being discriminated against on the basis of race, religion, color, sex, age, national origin, non-job related disability, sexual orientation, or veteran status. Current enrollment is limited to 12 new students per year based on the number of applicants who meet the admission criteria and qualifications.

The procedure for applicants who desire to seek acceptance into the PTA program is as follows:

- 1. Applicants must contact the Johnson College admissions staff to initiate the application process, which includes submitting an application
- 2. Students must meet the following minimum requirements:
  - a. SAT scores of 900 (combined math and verbal with not less than 450 on either section) or above or ACT scores 18 or above
  - b. Accuplacer Scores of 70 on each section (If SAT scores have not been taken within the last 5 years)
  - c. GPA 2.5 or higher\*
  - d. 1 year of Algebra with a "C" or higher\*
  - e. 2 years of English with a "C" or higher\*
  - f. 1 year of Biology with a "C" or higher\*

- g. Recommended: 1 year of an additional life or physical science with a "C" of higher\*
- h. Observation/Volunteer/Work at a Physical Therapy Clinic for a minimum of 15 hours
- i. PTA Admissions Questionnaire
- j. 2 Recommendations (1 from a Physical therapist or physical therapist assistant)

## (\*denotes pre-requisites that can be completed in high school or college; college level courses will be weighted more in the scoring process)

- 3. Once the applicant has completed all of the above pre-requisites, the admissions representative will send the file to the program director for review.
- 4. An interview will follow if applicant meets the minimum requirements. Students who meet all of the academic requirements (a.- g.) except for one may still be considered for acceptance if the student meets the rubric score requirement listed below.
- 5. The applicant will be scored based on the rubric which can be found on the program website.
- 6. Acceptance will be based on the following scores:
  - Rubric Score of 19 31: automatic acceptance into the program based on rolling acceptance beginning November 1st of the academic year prior to the anticipated year of matriculation
  - **Rubric Score of 10-18**: decision for acceptance will be made after May 1<sup>st</sup> based on pool of applicants
  - Rubric Score of < 10: not accepted

#### **Special Enrollment Requirements**

Prior to admission, students must complete 15 hours of observation in a physical therapy clinic with a Physical Therapist Assistant or a Physical Therapist and provide verification and complete the program admissions questionnaire.

#### **Special Fees**

In addition to tuition and program fees, students are responsible for the cost of physical exams and immunizations. Students are also required to join the American Physical Therapy Association as student PTA members.

#### Retention

Students are required to show both didactic and clinical progression each semester in order to progress through the Physical Therapist Assistant Program.

• The student **MUST PASS** each Physical Therapist Assistant didactic course and MTR 100, HAP 101, HAP 101 Lab, HAP 102, and HAP 102 Lab with a grade of at least a C+ (76) or higher.

- In order to successfully pass each PTA course and progress through the program, students must:
  - o receive a 76% or higher in each lecture and lab portion of the course
  - o receive an overall grade of a 76% or higher
  - achieve a written exam average (written exams + final exam) of 76% or higher
  - o complete all skill checklists
  - o pass each Practical Exam with a 76% or higher
  - o demonstrate appropriate professional behaviors as assessed by the Professional Behavior Assessment Form.

If any of the above criteria are not met, students may Fail the course and will not be able to progress in the PTA program. If students do not obtain a 76 written exam average, but meet all of the other criteria, the students' grade will be based on the written exam average. A student who fails the practical will receive an F in the course.

- The student **MUST PASS** each of the three clinical education courses (CLI 270, CLI 280, and CLI 290).
- The student **MUST PASS** all laboratory practical exams, with a grade of at least a C+ (76%) or better.(Refer to Lab Practical Policy)
- The student **MUST** demonstrate competency for all skills checklists for all PTA classes. (Refer to Skills Check Policy)
- The student MUST maintain a GPA each semester of 2.33 or higher.
- The student MUST demonstrate appropriate Professional Behaviors

Please refer to the **Physical Therapist Assistant Student Handbook** for further information.

#### **Clinical Education**

Clinical education is a significant part of the Physical Therapist Assistant Program. Prior to the clinical education experiences, students must complete criminal background checks, fingerprinting, child abuse clearance, and drug testing. Students must satisfy the clinical requirements for both Johnson College and the clinical sites in order to successfully complete the program.

#### **Pregnancy Policy**

It is the student's choice whether or not to disclose information regarding pregnancy. Please follow the guidelines as stated in the Pregnancy Policy of the Physical Therapist Assistant Student Handbook.

#### **Physical Therapist Assistant Student Handbook**

Physical Therapist Assistant students are responsible for reading and abiding by all policies and procedures in the Physical Therapist Assistant Student Handbook and Clinical Handbook.

## Physical Therapist Assistant Major Courses (46 credits)

PTA 103	Intro. to Physical Therapy for the	
	Physical Therapist Assistant	2
PTA 110	Patient Care	3
PTA 112	Physical Therapy Procedures I	2
PTA 115	Principles of Therapeutic Exercise	2
PTA 201	Pathophysiology	3
PTA 210	Applied Kinesiology	4
PTA 212	Physical Therapy Procedures II	3
PTA 215	Interventions in Musculoskeletal	4
PTA 216	Interventions in Neurology	4
PTA 217	Topics in Rehabilitation	4
PTA 220	Career Readiness	1
PTA 250	Professional Exploration	2
CLI 270	Clinical Experience I (40hrs/3wks)	2
CLI 280	Clinical Experience II (40hrs/6wks)	2 5
CLI 290	Clinical Experience III(40hrs/6wks)	5
<b>Related Cou</b>	rses (9 credits)	
HAP 101	Human Anatomy & Physiology I	3
HAP 101 L	Human Anatomy & Physiology I Lab	1
HAP 102	Human Anatomy & Physiology II	3
HAP 102 L	Human Anatomy & Physiology Lab II	1
MTR 100	Medical Terminology	1
General Edu	cation Core (15 credits)	
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
ENG 212	Public Speaking	3 3
MAT 121	Introduction to Statistics	
PSY 101	General Psychology	3
Other requir	rements	
SS 101	Student Success Seminar	1
Minimum Cı	redits to Graduate	71

# Physical Therapist Assistant Associate in Science (AS) Semester Program Outline

	J	Credits
Semester 1		
PTA 103	Intro. to Physical Therapy for the Physical Therapist Asst.	2
PTA 110	Patient Care	3
HAP 101	Human Anatomy & Physiology I	3
HAP 101L	Human Anatomy & Physiology I Lab	1
MTR 100	Medical Terminology	1
ENG 101	English Composition I	3
MAT 121	Introduction to Statistics	3
SS 101	Student Success Seminar	1
		17
Semester 2		
PTA 112	Physical Therapy Procedures I	2
PTA 115	Principles of Therapeutic Exercise	2
PTA 201	Pathophysiology	3
PTA 210	Applied Kinesiology	4
HAP 102	Human Anatomy & Physiology II	3
HAP 102L	Human Anatomy & Physiology II Lab	1
		15
First Year To	otals	32

# Physical Therapist Assistant Associate in Science (AS) Semester Program Outline

	Semester 110gram Sutmite	
		Credits
Semester 3		
PTA 212	Physical Therapy Procedures II (12 week course)	3
PTA 215	Interventions in Musculoskeletal (12 week course)	4
CPT 101	Microcomputer I (12 week course)	3
PSY 101	General Psychology (12 week course)	3
CLI 270	Clinical Experience I (3 weeks)	2
	• • • • • • • • • • • • • • • • • • • •	15
Semester 4		
PTA 216	Interventions in Neurology	4
PTA 217	Topics in Rehabilitation	4
PTA 220	Career Readiness	1
PTA 250	PTA Professional Exploration	2
ENG 212	Public Speaking	3
		14
Semester 5		
CLI 280	Clinical Experience II (6 weeks)	5
CLI 290	Clinical Experience III (6 weeks)	5
		10
Second Year	Totals	39
Program Totals		71
Minimum Credits to Graduate		71

#### Radiologic Technology (AS)

#### **Program Objective**

The Radiologic Technology program prepares students for entry-level positions in a hospital or outpatient clinical setting. Graduates will be prepared to take the national certification for the American Registry of Radiologic Technologists (ARRT) examination to become a registered technologist.

#### **Career Opportunities**

Graduates can work as technologists in hospitals, medical service centers, and outpatient imaging centers, or with additional training and education, career advancement into other imaging modalities is possible.

The Radiologic Technology program at Johnson College offers several career and employment post-graduation paths. Upon successfully passing the ARRT national certification examination, students may continue their education in a nine month certificate program in MRI or CT scanning.

Students may also further their education to complete an online Bachelor of Science degree in Applied Health Studies (BAH) through an articulation agreement with Pennsylvania College of Technology.

#### **Program Mission Statement**

The mission of the Radiologic Technology Program at Johnson College is to develop competent, professional radiographers whose expertise will meet the community they serve by providing patient- centered care in a professional, compassionate and responsible manner.

#### **Program Vision Statement**

The vision of the Radiologic Technology Program at Johnson College is rooted in the ideals set forth by Orlando Johnson; to provide industry-focused learning and to prepare graduates to compete and excel in the working community

#### What do Radiologic Technologists do?

The Radiologic Technologist must be well educated in:

Anatomy Patient positioning Exam techniques
 Equipment protocols Radiation safety Radiation protection

• Basic patient care

The technologist will be responsible for patient assessment and preparation for radiologic procedures and image production. You are an important part of the diagnostic team responsible for producing a quality diagnostic image. The physicians that are specialized

in the field of radiology (Radiologists) interpret these images to obtain an accurate diagnosis to rule out disease, injury, and develop a course of treatment.

#### **Programmatic Accreditation**

The Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT)

20 North Wacker Drive, Suite 2850 Chicago, IL 60606-3182

Phone: (312) 704-5300 E-mail: mail@jrcert.org Website: www.jrcert.org

#### **Program Goals**

## Goal One: Graduates will possess the skills necessary to obtain an entry-level radiologic position

Student learning outcome

- Graduates will demonstrate competence in position skills.
- Graduates will be able to utilize the knowledge to set appropriate technical factors.
- Graduates will practice safe radiation practices.

## Goal Two: Graduates will understand the importance of professional behavior and life-long learning.

Student learning outcome

- Students/Graduates will be a responsible member of the healthcare team.
- Students/Graduates will display professionalism in the medical environment.
- Students/Graduates will demonstrate a good work ethic in the clinical environment.

## Goal Three: Graduates will possess the appropriate skills needed for decision-making and critical thinking, and make professional advancement within the Radiologic Technology field.

Student learning outcome

- Graduates will partake in personal and professional growth opportunities.
- Students/Graduates will assess patient condition and adjust the situation or procedure accordingly.
- Students/Graduates will demonstrate the necessary oral and written communication skills.

#### Goal Four: Graduates will meet the needs of the patient.

Student learning outcome

• Graduates will be able to critique images for diagnostic purpose.

• Graduate will be able to adjust standard procedures to meet the needs of the individual patient for non-routine exams.

#### **Required Courses**

Required courses in high school include Algebra I and Algebra II or Geometry, and Biology.

#### **Recommended Courses**

Recommended courses include Physics and math courses higher than Algebra II.

#### **Special Admissions Requirements**

A minimal Scholastic Aptitude Test (SAT) score of 900 for combined math and verbal or a minimal American College Test (ACT) of 20 is required for admission. The new writing component of the SAT will be reviewed by the Admissions Office and may assist in determining placement and/or admission to the College.

Applicants must take either Biology or Physics and attain a grade of "C" or higher. A completed Radiologic Technology questionnaire must be submitted. Application deadline is February 15 of each year.

#### **Special Fees**

In addition to tuition and fees, Radiologic Technology students will have a summer practicum fee of \$1,200.00. Students are responsible for the costs of required health exams and immunizations.

#### Retention

Throughout the program of study, students are required to maintain a cumulative Grade Point Average (GPA) of at least 2.00 and a minimum grade of 2.67 in each Radiologic Technology major course in order to remain in the program. Students who do not meet the GPA requirements for Radiologic Technology subjects will be placed on Academic Probation as outlined in the **Radiologic Technology Handbook**.

#### **Clinical Practicums**

Clinical practicum rotations at approved sites must be completed. Students must satisfy the clinical requirements of both Johnson College and the clinical provider as a condition of graduation.

Clinical sites require criminal background checks, fingerprinting, child abuse clearance and drug testing. Clinical sites may bar students from clinical rotations if a criminal record exists or a drug test has a positive result.

#### **Pregnancy Policy**

It is the student's choice whether or not to inform the Department Chairperson and Clinical Coordinator of a pregnancy. If a student chooses not to do so, no accommodations can be made to the student's clinical assignment or program of study. Students who choose to disclose their pregnancy are required to follow the guidelines of the Pregnancy Policy as stated in the **Radiologic Technology Student Handbook**.

#### **Criminal Background/ Drug Screening Policy**

Each student will be required to have both state and federal criminal background checks, child abuse clearance, fingerprinting and drug screening. Johnson College is not responsible for the decisions or actions of other institutions or organizations that may result from students' failure of drug screening, random drug screening, background checks, or students' failure to report the results of these incidents to the college.

Failure of drug screening both on and off Johnson College premises will result in disciplinary action up to and including dismissal from the program.

#### **Student Handbook**

Radiologic Technology students are responsible for reading and abiding by all policies and procedures in the **Radiologic Technology Student Handbook.** 

## Radiologic Technology Major Courses (36 credits)

RAD 132	Radiologic Positioning I/Lab	4
RAD 133	Radiologic Exposures & Principles I/Lab	4
RAD 134	Introduction to Radiology/Patient Care	2
RAD 145	Radiologic Positioning II/Lab	3
RAD 136	Radiologic Exposures & Principles II/Lab	4
RAD 137	Radiologic Nursing Procedures	1
RAD 138	Radiation Biology & Protection	3
RAD 231	Radiologic Pathology	2
RAD 233	Image Analysis	2
RAD 234	Advanced Exposures	2
RAD 236	Advanced Medical Imaging	2
RAD 237	Registry Seminar	2
PRA 131	Clinical Practicum I	1
PRA 132	Clinical Practicum II	2
PRA 231	Clinical Practicum III	1
PRA 232	Clinical Practicum IV	1
<b>Related Cours</b>	es (15 credits)	
HAP 101	Human Anatomy & Physiology I	3
HAP 101L	Human Anatomy & Physiology I Lab	1
HAP 102	Human Anatomy & Physiology II	3
HAP 102L	Human Anatomy & Physiology II Lab	1
MTR 100	Medical Terminology	1
PHY 101	Introductory Physics	3
PHY 201	Imaging Physics	3
<b>General Educa</b>	ation Core (21 credits)	
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
ENG 211	Communication Theory	3
or ENG 212	Public Speaking	3
HMN 101	Introduction to Humanities	3
MAT 101	College Algebra I and Trigonometry	3
<b>or</b> MAT 201	College Algebra II and Trigonometry	3
MAT 121	Introduction to Statistics	3
PSY 101	General Psychology	3
or SOC 101	Introduction to Sociology	
Other require		
SS 101	Student Success Seminar	1
Minimum Cre	dits to Graduate	73

## Radiologic Technology Associate in Science (AS) Semester Program Outline

		Credits
Semester 1		
RAD 132	Radiologic Positioning I/Lab	4
RAD 133	Radiologic Exposures & Principles I/Lab	4
RAD 134	Introduction to Radiology/Patient Care	2
HAP 101	Human Anatomy & Physiology I	3
HAP 101L	Human Anatomy & Physiology I Lab	1
MAT 101	College Algebra I and Trigonometry	3
or MAT 201	College Algebra II and Trigonometry	
MTR 100	Medical Terminology	1
SS 101	Student Success Seminar	1
		19
Semester 2		
PRA 131	Clinical Practicum I	1
RAD 145	Radiologic Positioning II/Lab	3
RAD 136	Radiologic Exposures & Principles II/Lab	4
RAD 137	Radiologic Nursing Procedures	1
HAP 102	Human Anatomy & Physiology II	3
HAP 102L	Human Anatomy & Physiology II Lab	1
PHY 101	Introductory Physics	3
ENG 101	English Composition I	3
		19
Summer Sessi	ion I	
PRA 132	Clinical Practicum II	2
First Year To	tals	40

## Radiologic Technology Associate in Science (AS) Semester Program Outline

		Credits
Semester 3		
PRA 231	Clinical Practicum III	1
RAD 138	Radiation Biology & Protection	3
RAD 233	Image Analysis	2
RAD 234	Advanced Exposures	2
CPT 101	Microcomputer I	3
ENG 211	Communication Theory	3
or ENG 212	Public Speaking	
PHY 201	Imaging Physics	3
		17
Semester 4		
PRA 232	Clinical Practicum IV	1
RAD 231	Radiologic Pathology	2
RAD 236	Advanced Medical Imaging	2
RAD 237	Registry Seminar	2
HMN 101	Introduction to Humanities	3
MAT 121	Introduction to Statistics	3
PSY 101	General Psychology	3
or SOC 101	Introduction to Sociology	
		16
Second Year	Totals	33
Program Totals		73
U	redits to Graduate	73
MIIIIIIIIIIIIIII	icuits to Graduate	13

#### **Veterinary Technology (AS)**

#### **Program Objective**

The Veterinary Technology program prepares students to join an animal-care team as entry-level technicians. Technicians collect samples, perform lab tests, take radiographs, prepare the surgical suite, assist in surgery, monitor anesthesia, provide general nursing care to patients, and assume other clinical duties. Second-year students complete clinical rotations in the Animal Care Center, a pet wellness center on the campus of Johnson College. The program prepares students to become Certified Veterinary Technicians (CVT) upon passing the Veterinary Technician National Exam (VTNE).

#### **Career Opportunities**

Graduates work in many areas of veterinary medicine such as small and large animal clinics, research facilities, academia, zoos, laboratories, pharmaceutical companies, and government agencies such as the United States Department of Agriculture (USDA).

#### **Program Goals**

- Graduates will possess the skills necessary as outlined by the CVTEA required tasks for licensure/certification as an entry-level Veterinary Technician
- Graduates will posses skills that will enable continuing education within the veterinary technology profession.
- Graduates will abide by the NAVTA Veterinary Technician Oath.

#### **Programmatic Accreditation**

The Veterinary Technology program is accredited by the American Veterinary Medical Association (AVMA).

#### **Recommended Courses**

Recommended courses in high school include Physics, and math courses at a level of Algebra II or higher.

#### **Special Admissions Requirements**

A minimal high school grade point average (GPA) of 2.5 along with a minimal Scholastic Aptitude Test (SAT) score of 1300 total or a minimal American College Test (ACT) of 18 is required for admission.

Applicants must take 2 years of Biology and/or Life Sciences, and Inorganic Chemistry and attain a grade of "C" or higher. A completed Veterinary Technology questionnaire must be submitted and ten hours of observation at a veterinary clinic is required. Application deadline is February 15 of each year.

#### **Special Enrollment Requirements**

Prior to the start of the first semester, students must provide proof of a tetanus inoculation. Rabies inoculation is also required to participate in any laboratory and clinical activities involving animals.

#### **Special Fees**

In addition to tuition and fees, students are responsible for the purchase of clinic, lab, and class supplies as well as the costs of immunizations. Veterinary students will have a fee of \$1,000.00 to cover the cost of a summer off-campus internship or cooperative education experience.

#### Retention

Veterinary Technology students are required to maintain a cumulative 2.33 GPA (76% or higher) in VET courses. Additionally, a student must receive an average grade of "C" (72%) or higher in each VET course. If a student receives a grade below 72%, the student must re-take the course at his/her own expense. If the student's GPA falls below 2.33, the student will be placed on academic probation. Please review to the Veterinary Technology Program Syllabus for details concerning academic progress and probation details.

VET 204 and VET 208, Senior Clinical Rotations I and II are capstone courses. The clinical experiences are to provide an environment allowing students to incorporate and enhance all AVMA required tasks. Students must receive a score of 70% or better on Clinical Rotation written final exams, oral/practical exams, and instructor evaluations of students. Students who do not obtain a minimum score of 70% in any of the three evaluations will receive a letter grade of "F" for the rotation and must repeat the course. Students are also required to adhere to strict guidelines on patient neglect or cruelty.

#### **Internship/Cooperative Education Experience**

A five-week internship or cooperative education experience at an approved site must be completed after the last semester of the second year. Students must satisfy the internship requirements of both Johnson College and the internship provider as a condition of graduation.

Some internship sites may require a criminal background check and/or a drug test. Internship sites may bar students from an internship if a criminal record exists or a drug test has a positive result. Costs for travel to and from an internship site are the responsibility of the student.

#### **Pregnancy Policy**

Students should contact the Veterinary Technology Department Chair for a copy of the program's pregnancy policy.

## Veterinary Technology Major Courses (48 Credits)

	Major Courses (48 Credits)	
VET 101	Introduction to Veterinary Technology/Clinical Mgmt.	1
VET 102	Clinical Applications for Large Animals	2
VET 102L	Clinical Applications for Large Animals Lab	2
VET 103	Clinical Applications for Small Animals	2
VET 103L	Clinical Applications for Small Animals Lab	1
VET 104	Animal Anatomy and Physiology I	3
VET 104L	Animal Anatomy and Physiology Lab I	1
VET 105	Animal Anatomy and Physiology II	3
VET 105L	Animal Anatomy and Physiology Lab II	1
VET 106	Animal Husbandry/Breeds/Nutrition	2
VET 201	Pharmacology & Anesthesia	3
VET 202	Clinical Pathology	2
VET 202L	Clinical Pathology Lab	1
VET 203	Parasitology	2
VET 203L	Parasitology Lab	1
VET 204	Clinical Rotation I	1
VET 205	Surgical Nursing I and Lab	2
VET 206	Microbiology & Immunology	2
VET 206L	Microbiology & Immunology Lab	1
VET 207	Surgical Nursing II and Lab	2
VET 208	Clinical Rotation II	1
VET 209	Veterinary Radiology	1
VET 209L	Veterinary Radiology Lab	1
VET 210	Intensive Care Applications	3
VET 211	Diseases & Zoonoses	3
VET 212	Internship	4
or VET 213	Co-op Educational Experience	4
	ation Core (18 Credits)	
BUS 101	Introduction to Business	3
CHE 101	Chemistry I	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
ENG 212	Public Speaking	3
MAT 101	College Algebra I and Trigonometry	3
Electives (2/3 (		2/3
Other require		
SS 101	Student Success Seminar	1
Minimum Cr	redits to Graduate	69

## Veterinary Technology Associate in Science (AS)

## **Semester Program Outline**

\*Note – Some of the course information has been updated to reflect current program guidelines and is solely placed on this website. They are not found in the printed copy of the 2016-2017 Johnson College Catalog.

		Credits
Semester 1		
VET 101	Introduction to Veterinary Technology/Clinical Management	1
VET 102	Clinical Applications for Large Animals	2
VET 102L	Clinical Applications for Large Animals Lab	2
or VET 103	Clinical Applications for Small Animals	2
VET 103L	Clinical Applications for Small Animals Lab	1
VET 104	Animal Anatomy & Physiology I	3
VET 104L	Animal Anatomy & Physiology Lab I	1
MAT 101	College Algebra I and Trigonometry	3
ENG 101	English Composition I	3
SS 101	Student Success Seminar	1
		15/16
Semester 2		
VET 102	Clinical Applications for Large Animals	2
VET 102L	Clinical Applications for Large Animals Lab	2
or VET 103	Clinical Applications for Small Animals	2
VET 103L	Clinical Applications for Small Animals Lab	1
VET 105	Animal Anatomy and Physiology II	3
VET 105L	Animal Anatomy and Physiology Lab II	1
VET 203	Parasitology	2
VET 203L	Parasitology Lab	1
VET 206	Microbiology & Immunology	2
VET 206L	Microbiology & Immunology Lab	1
CHE 101	Chemistry I	3
CPT 101	Microcomputer I	3
		18/19
First Year To	otals	34

## Veterinary Technology Associate in Science (AS) Semester Program Outline

Semester 3		
VET 106	Animal Husbandry/Breeds/Nutrition	2
VET 201	Pharmacology & Anesthesia	3
VET 202	Clinical Pathology	2
VET 202L	Clinical Pathology Lab	1
VET 204	Clinical Rotation I or VET 208 Clinical Rotation II	1
VET 205	Surgical Nursing I and Lab	2
BUS 101	Introduction to Business	3
		15
Semester 4		
VET 207	Surgical Nursing II and Lab	2
VET 208	Clinical Rotation II or VET 204 Clinical Rotation I	1
VET 209*	Veterinary Radiology	1
VET 209L*	Veterinary Radiology Lab	1
VET 210	Intensive Care Applications	3 3
VET 211	Diseases & Zoonoses	
ENG 212	Public Speaking	3
	Elective	2/3
		16/17
Summer Sem		4
VET 212	Internship or	4
VET 213	Co-op Educational Experience	
		4
Second Year	Totals	35/36
Program To	Program Totals	
Minimum Credits to Graduate		69

<sup>\*</sup> Must be taken concurrently with VET 204 offered in Semester 3 & 4.

#### **CERTIFICATE PROGRAMS**

## **Diesel Preventative Maintenance Technology (Certificate)**

The Diesel Preventative Maintenance Technician program prepares students to enter the workforce ready to perform routine repair procedures, preventive maintenance, and safety applications.

Graduates work as brake technicians as well as perform routine maintenance and make general repairs.

Typical employers of Diesel Preventative Maintenance technicians are truck, farm, and earth-moving equipment dealerships; trucking companies; truck service centers; engine repair/machine shops; truck equipment distributors; independent service garages.

#### Diesel Preventative Maintenance Technology Major Courses (22 Credits)

VMR 141	Introduction to Vehicle Maintenance & Repair Tech.	3
VMR 142	Brake Systems	3
VMR 143	Steering and Suspension Systems	3
VMR 144	Electrical & Electronic Systems	3
DTT 155	Diesel Fuel Injection Systems	3
DTT 146	Diesel Engine Overhaul	4
IET 101	Introduction to Automotive and Diesel Electronics	3
General Educa	ntion Core (9 Credits)	
BUS 101	Introduction to Business	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3

#### Minimum Credits to Graduate

31

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation.

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 <a href="http://www.johnson.edu/prospective-students/certificate-programs-gainful-employment/">http://www.johnson.edu/prospective-students/certificate-programs-gainful-employment/</a>

## DIESEL PREVENTATIVE MAINTENANCE TECHNOLOGY CERTIFICATE

#### **Semester Program Outline**

Semester 1		
VMR 141	Introduction to Vehicle Maintenance & Repair Tech.	3
VMR 142	Brake Systems	3 3 3 3
VMR 143	Steering and Suspension Systems	3
IET 101	Intro. to Auto & Diesel Electronics	3
CPT 101	Microcomputer I	3
(* MAT 0100	College Prep Algebra-based on ACCUPLACER score	e) 3
Total Semester 1 15/18		/18*
Semester 2		
VMR 144	Electrical & Electronic Systems	3
DTT 155	Diesel Fuel Injection Systems	3
DTT 146	Diesel Engine Overhaul	
BUS 101	Introduction to Business	4 3 3
ENG 101	English Composition I	3
<b>Total Semeste</b>	r 2	16
TOTAL CRI	EDITS CERTIFICATE	31 / 34*

#### Welding Technology (Certificate)

The Welding Technology certificate course prepares students for entry-level work in the welding industry. Students learn about safety, hand tools, oxy-acetylene torches, plasma arc, shielded metal arc welding (stick), gas metal arc welding (MIG), gas tungsten arc welding (TIG), flux cored arc welding, metallurgy, print reading, and weld symbols.

Graduates work as welders, welder/fabricators, maintenance welders, fitters, ornamental metal sculptors, and welder helpers.

Typical employers in the welding industry include structural steel fabricators, custom metal shops, industrial contractors, shipyards, pipe and pressure vessel fabricators, and retail welding sales.

Welding Ted	chnology Major Courses (30 Credits) *	
WTC 111	Shielded Metal Arc Welding I	3
WTC 112	Gas Metal and Flux Cored Arc Welding I	3
WTC 113	Gas Tungsten Arc Welding I	3
WTC 114	Shielded Metal Arc Welding II	3
WTC 115	Gas Metal and Flux Cored Arc Welding II	3
WTC 116	Gas Tungsten Arc Welding II	3
<b>Related Cou</b>	rses (6 Credits)	
BRT 101	Blueprint Reading	3
MAT 100	Applied Mathematics for Welders	3
General Edu	cation Courses (6 Credits)	
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
Minimum C	redits to Graduate	30

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 <a href="http://www.johnson.edu/prospective-students/certificate-programs-gainful-employment/">http://www.johnson.edu/prospective-students/certificate-programs-gainful-employment/</a>

<sup>\*</sup>All major welding courses will be held at the College's welding shop. This is a satellite location. This location is at 2001 Rosanna Ave., Scranton, PA. The Welding Shop is approximately 1.5 miles from the Main Campus located at 3427 North Main Avenue, Scranton.

## WELDING TECHNOLOGY CERTIFICATE

## **Semester Program Outline**

Semester 1		
WTC 111	Shielded Metal Arc Welding I	3
WTC 112	Gas Metal and Flux Cored Arc Welding I	3
WTC 113	Gas Tungsten Arc Welding I	3
BRT 101	Blueprint Reading	3
MAT 100	Applied Mathematics for Welders	3
Total Semester 1		15
Semester 2		
WTC 114	Shielded Metal Arc Welding II	3
WTC 115	Gas Metal and Flux Cored Arc Welding II	3
WTC 116	Gas Tungsten Arc Welding II	3
CPT 101	Microcomputer I	3
ENG 101	English Composition I	3
Total Semester 2		15
TOTAL CREDITS CERTIFICATE		30

#### **COURSE DESCRIPTIONS**

#### **Programs of Study**

#### **Advanced Manufacturing Engineering Technology**

#### Course No. Course Title Credits

#### **AMT 101** Principles for Advanced Manufacturing

3

This course introduced the students to advanced manufacturing and the man areas into which it is incorporated. The focus of the course will be on manufacturing processes, CAD/CAM basics, robotics, sustainable design and manufacturing, and related manufacturing principles. The course is designed to give the students an understanding of advanced manufacturing's main applications, and the many occupational possibilities it presents.

#### **AMT 111** Fundamentals of Metal Cutting

3

This course covers machine trade theory including safety practices and working concepts of hand tools, band saws, belt sanders, pedestal grinders, drill presses, and cutting tools. It also provides practical applications including jobs and projects involving hand tools, cutting, deburring, sharpening, and grinding various cutting tools. Measuring instruments are also stressed throughout this course.

#### **AMT 112 Subtractive Manufacturing**

3

Safety, cutting speeds, types of lathes, lathe accessories, lathe operation, and measuring instruments are covered in this course. Lathe operations covered include facing, turning, center drilling, reaming, boring, tapering, knurling, and thread chasing. Information about safety, types of milling machines, milling machine attachments, milling operations are covered in this course. Milling operations include squaring a piece, locating holes, drilling operations, and milling slots. Technical competence in the use of measuring instruments is also stressed.

#### **AMT 121** Introduction to Electricity

3

In this course, students will investigate the properties of electricity and its use in the industrial setting for powering systems and controlling them. The course will start with an introduction to electricity, its properties, and safety concerns when engaging it. The students will then work with the industrial aspects of electricity to include three phase

systems for power and lower voltage systems for control purposes. Electrical safety, test and measurement of these systems to ensure proper operation will be an integral part of this course.

#### **AMT 122** Sensors and Systems in Automation

3

This course will introduce the students to common types of detection devices used in automation and allow the student to set-up, operate and troubleshoot them in a practical setting. The course will also introduce the student to pneumatic and vacuum systems used in the industrial setting for control of actuators and grippers in an automated system. The student will work with hydraulic, pneumatic and vacuum systems to deal with the concepts of setup and integration of these systems into the larger control scheme of an automated system.

#### **AMT 206** Systems Integration (Capstone Project)

4

This course will require all students to attend a scheduled weekly meeting to discuss the scope of their work, projects to be completed, project timelines, budgets, and progress made during the previous week. Successes and challenges encountered during the previous week will also be discussed. All students are expected to participate and contribute in a positive manner.

#### AMT 208 Internship

4

This educational experience is designed to expose the student to an actual industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 47 credit hours, maintaining a 2.0 GPA, and having met all other program prerequisites and academic requirements prior to their final spring semester. The student is expected to adhere to all policies and regulations associated with their work term facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician. These previously mentioned criteria will also be used as a component of the student's grade for this course. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (Compensated or Non-Compensated position)

#### **AMT 211** Computer Numerical Control Machining

3

This course covers the general information, such as G codes and M codes needed to program CNC lathes and vertical machining centers. CNC lathe and vertical machining center safety procedures, tooling set-up,

programming, and operation are included in the practical application portion of this course. Tool offsets are also covered in this course.

#### AMT 213 Computer Aided Design/Computer Aided Manufacturing 3

This course introduces the students to the use of Computer Aided Design (CAD) software to create 2 D geometry. Once the 2 D geometry is complete tool paths are created to machine parts, editing tool paths, and downloading appropriate information to CNC and machine.

#### **AMT 214** Additive Manufacturing

3

This course introduces the students to Solidworks and how to create 3 D drawings. Once the part is drawn it is opened in Catalyst and printed in the 3 D printer. The part is than cleaned of the support material and checked for accuracy and functionality. The lecture portion will introduce Solidworks as well as the Additive Manufacturing processes, materials that are used, and how it is used in industry. The lab portion will allow hands on practice with Solidworks to draw 3 D contours, and how to prepare it to run on a 3 D printer. Set-up and operation of the 3 D printer as well as the rinse tank is covered in the lab portion.

#### **AMT 221** Programmable Logic Controllers

4

This course is designed to introduce the student to modern programmable logic controllers through theory and hands on experiments with the CompactLogix Programmable Automation Controllers (PAC's). The student will investigate the setup, configuration, programming, and implementation of the controllers through lab exercises designed to have the student build a system from beginning to end. The course then continues with an examination of the different types of hardware devices that are used in conjunction with PAC's. An emphasis is placed on programming projects throughout the course.

#### **AMT 223** Automation and Robotics

3

This course begins with a study of the terminology for automated and robotic systems. Then the students will work with the classifications, coordinate systems, and physical makeup of a robotic system. This course continues with an examination of the power systems, lifting capacities and applications for automation and robots. An investigation of sensors, vision, artificial intelligence, the principles and techniques involved in working with robotics.

#### BRT 105 Blueprint/Schematic Reading

3

This course conveys to the students an understanding of the procedures for reading and interpreting industrial prints. The course includes related peripheral information that will enhance the students' understanding of the diversity that is characteristic of industrial prints. Many types of industrial prints and their applications will be covered during this course.

#### LOG 291 Total Quality Management

3

This course focuses on the development of efficient product management from production to customer relations. Various manufacturing processes are evaluated and the importance of employee input is stressed. Products are followed for quality control beyond production to purchase and warranty. Methodologies like Lean and Six Sigma will be addressed. (Prerequisites: BUS 101, MAT 121)

#### **Architectural Drafting & Design Technology**

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation

#### Course No. Course Title

**Credits** 

#### ADT 113 Residential Planning

4

This course will provide hands on Computer-Assisted Drafting (CAD) to create Residential Floor Plans, Residential Elevations, Site Layouts, Structural Framing Plans, Plumbing Plans, HVAC Plans and Electrical drawings. It will explain in detail what is required on a Residential Set of drawings for permitting purposes and will introduce students to basic Sustainability concepts and procedures.

#### ADT 114 Introduction to Computer-Assisted Drafting (CAD)

4

This course is an introductory course into Computer-Assisted Drafting. It explains basic CAD commands required to produce working drawings. Students will work with basic lines and editing commands to more complicated concepts in computer drafting. They will produce basic Floor Plans, Elevations, Sections and Details required in the residential drafting field.

#### **ADT 120** Contract Drawings

3

This course will introduce students to reading and understanding Contract Drawings for residential and commercial construction drawings. This course will cover the composition of different industry drawings such as Residential House Plans, Commercial Architectural Plans, Civil Plans, Structural Plans, Plumbing Plans, HVAC Plans and Electrical drawings. Students will be instructed on what type of information these drawings contain and what purpose these drawings serve.

#### **ADT 121** Residential Cost Estimating

3

This course will train students to use Residential Drawings to calculate areas, volumes and other material quantities in order to estimate material costs. It will introduce students to gathering information from various types of drawings such as Site Plans, Floor Plans, Structural Plans, building systems plans and use that information to estimate construction costs for the projects.

#### **ADT 220** Building Information Modeling, Residential

4

This course expands computer skills to include Building Information Modeling (BIM) for residential construction. This course includes basic

Residential building modeling and presentation of the projects in multiviews. It contains sustainability concepts such as site orientation studies for sustainability design.

#### **ADT 221** Building Information Modeling, Commercial

This course expands BIM skills to include Commercial Building Projects and the use of features such as structural steel, multi-levels, curtain walls and store fronts. Students will expand the use of Building Information Modeling by using more advanced program features to implement commercial design into the projects.

#### **ADT 223** Codes and Ordinances

3

This course introduces student to the many regulatory agencies that govern over the drafting and design field. It emphasizes the preparation of permit information for residential projects along with commercial building regulations for the protection of public health, safety and welfare. This course explains in further detail what it means to be sustainable and what practices can be used in "Green Building" Technology.

#### **ADT 224** Specifications

3

This course explores building project materials and product specifications from the CSI format and how these materials and products relate to the drafting and design process. Students will research and write basic building material specifications needed to define the scope of work, construction materials, methods and quality control.

#### **ADT 225** Commercial Cost Estimating

3

This course will bring a new dimension to estimating and will focus on Commercial Building Projects. It will include estimates on commercial building methods such as site work, structural steel systems and commercial building products.

#### **ADT 226** Sustainability Design

3

This course will explain what "sustainability" is and include the construction materials and methods used in sustainability design and how it relates to building design. Students will expand their knowledge to include sustainability concepts into practical construction methods and details used in drafting and design.

#### ADT 217 Internship

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (No compensation)

#### **ADT 218** Cooperative Educational Experience

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (Compensation)

#### **BUS 110** Business Research and Report Writing

3

This course focuses on the skills and techniques required to research, write and format professional business reports. Topics include locating technical specifications, evaluating information, writing specifications and work scopes, communicating specifications to others, formatting and presenting information. (*Prerequisite:* ENG 101)

#### MCH 201 Statics and Strengths of Materials

3

This course is an examination of coplanar force systems, analysis of trusses, axial stress and strain, material properties, centroids, moments of inertia, stresses in beams, beam design and torsion.

#### **Automotive Technology**

This course prepares students with skills labeled by the Commonwealth ofPennsylvania as those used in traditional or evolving green occupation

#### Course No. Course Title

Credits

#### VMR 141

#### Introduction to Vehicle Maintenance & Repair Technology 3

This course covers information on hand tools, machines, and equipment common to the Vehicle maintenance field, general service procedures, lubricants, reference manuals, pre-delivery inspection of new and used vehicles and preventive maintenance procedures. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### VMR 142 Brake Systems

3

This course covers information on hydraulic and air brake systems. Mechanical foundation, air supply, service system principles, major components, parking brake systems, brake system diagnostics, service to drum brake assemblies, air lines and hoses, brake switches, antilock brake principles and service are all a part of this course. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### VMR 143 Steering and Suspension Systems

3

This course covers information on steering and suspension systems, theory and principles, independent suspensions, geometric principles, factors affecting wheel alignment, tools and equipment used for steering and suspension, troubleshooting of suspension and steering, wheel bearings service, manual steering and power steering system operation. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### VMR 144

#### **Electrical & Electronic Systems**

3

This course covers information on electricity, basic electrical circuits, tools and equipment, batteries, charging systems, starting systems, lighting systems, horn, wipers and washers, cooling fans, instrument circuits and body electrical systems. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### VMR 245 HVAC Vehicle Systems

This course covers information on the operation of heating and air conditioning as applied to today's cars and trucks. New learning experiences in the troubleshooting and servicing of these systems are taught. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### **AUT 155** Engine Performance & Emissions

**3** e ope

This course covers information and practical experience on the operation and approved servicing of emission systems, fuel injection systems, computerized emission control systems, computerized engine procedures and live vehicles to reinforce the information presented. Computer diagnostics is introduced including closed-loop theory, closed-loop diagnostics; basic troubleshooting and scan tool operation is also covered. Proper safety procedure related to fuel and emission systems is also covered. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### **AUT 158** Internal Combustion Engine Fundamentals

3

This course covers information and practical experience on the operation and approved servicing of engine cooling systems and lubrication systems. The four- and two-stroke engine configurations are addressed along with various camshaft configurations. Proper safety procedures related to the diagnosis and repair of the internal combustion engine are also covered. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### **AUT 241** Gasoline Engine Overhaul Procedures

4

Information and practical experience is provided for engine overhaul procedures. Emphasis is placed on the repair of cylinder heads, valve trains, and engine blocks. Proper safety procedures related to engine overhaul will also be covered. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### **AUT 252 Fuel Injection Systems**

3

This course covers information and operation of various fuel injection systems. An in-depth study of safety procedures, preventive

maintenance, and distinctions between gasoline and diesel injection are stressed. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### **AUT 254 Automatic Transmissions and Transaxles**

3

This course covers the information and practical experience necessary to service automatic transmissions. Systematic troubleshooting procedures, adjustments and unit overhaul are part of this program. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### **AUT 255 Manual Transmissions and Differentials**

3

This course covers the theory and service experience on complete power-train systems for front-, rear-, and four-wheel drive vehicles. New learning experiences include inspection, replacement, servicing, and rebuilding of manual transmissions, transaxles, locking hubs and power take-off systems. In addition, servicing, troubleshooting and overhaul for 4-wheel drive differentials and drive differentials and drive shafts will be covered. Proper safety procedures related to manual transmissions and differentials will also be covered. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

#### **AUT 247** Internship

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (No compensation)

#### **AUT 248** Cooperative Educational Experience

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a

contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (Compensation)

#### **AUT 249 Automotive Electrical Technology**

4

This course will reinforce theories and principles of automotive electronics through the use of diagnostic equipment for practical troubleshooting scenarios. Shop experiments will be performed to trace and repair electrical issues with the use of wiring diagrams. Students will be able to follow electrical flow through a circuit on a vehicle wiring diagram. Proper safety procedures related to electrical troubleshooting will also be covered. *Prerequisite*: IET 101

#### **IET 101** Introduction to Automotive & Diesel Electronics

3

This course will provide the student with an introduction to DC electric principles and the different electronic devices seen in modern diesel and automotive vehicles. It will explain instruments and procedures used in testing and measuring these devices.

### **Biomedical Equipment Technology**

This course prepares students with skills labeled by the Commonwealth of Pennsylvania as those used in traditional or evolving green occupation

#### Course No. Course Title

Credits

#### EET 111

#### **DC** Electricity and Instrumentation

3

This course introduces the student to the theory and operation of basic DC circuits, circuit construction, operation and troubleshooting. Basic alternative energy technologies are introduced. The student will also gain practical experience in soldering, digital multi-meter usage, and Ohm's Law applications for testing and troubleshooting electric circuits. Elements of proper disposal of batteries and other circuit components considered to be hazardous waste are included.

#### **EET 112** Alternating Current and Passive Devices

3

This course introduces the student to circuitry basic to AC electrical theory. It identifies the fundamental differences between AC and DC energy sources and circuit components. It also introduces oscilloscope usage, AC units, nomenclature and electromagnetism. The course will also cover inductors, transformers, and capacitors and their effects in AC circuits. Work place energy efficiency and conservation habits are included. The concepts of RCL circuits and their use as passive filters will be covered.

#### **EET 113** Introduction to Semiconductors

3

This course provides an introduction to semiconductor theory, the different types of semiconductor components, their symbols, characteristics, and uses. Basic power supplies, small signal amplifiers, large signal amplifiers and coupling techniques are covered. This course will concentrate on characteristic waveforms, theory and troubleshooting. Practice is provided regarding diodes, transistors and circuit applications. Sustainable practices to minimize resources and chemical use are an integral part of the course.

#### **EET 114 Integrated Circuits and Thyristors**

3

This course provides an introduction to integrated circuits through the operational amplifier, its characteristics and configurations. Amplifier troubleshooting is included, highlighting methods of determining causes of failures and locating problems. This study of integrated circuits will continue by investigating the operation of integrated voltage regulators

and the 555 universal timer. The thyristors family of electronic components is introduced through lecture and experimentation to identify the characteristics, circuitry, and methods of troubleshooting this family of components.

#### **EET 115 Digital Electronics I**

3

This course begins by familiarizing the student with the fundamental gates, numbering systems and simplification techniques used for the implementation of digital circuitry. It continues by discussing different IC specifications and interfacing problems found between different families of digital logic. The later portion of the course studies the different digital codes, seven segment displays and flip-flops with emphasis placed throughout the course on schematic interpretation, nomenclature and troubleshooting. Complex programmable logic devices are discussed throughout this course.

#### **EET 106 Digital Electronics II**

4

This course continues the study of digital electronics through the investigation of the circuits used for counters, registers, arithmetic logic circuits and digital to analog interfacing. It examines the circuitry of each section with emphasis on circuit timing, characteristic waveforms and troubleshooting. Throughout this course the student will build and troubleshoot circuits used as the basis of modern digital machines.

#### **BET 201** Medical Equipment Standards and Testing

4

The student learns the requirements and methods of current standards of the Biomedical industry, also known as Healthcare Technology Management (HTM). Students are introduced to the hierarchy of statutes, regulations, standards including accreditation standards, and hospital policies for healthcare equipment management and safety. Students perform extensive equipment testing to verify conformance with national standards and manufacturer's specifications. Students learn standard practices for electrical safety testing, HTM and medical ethics as they pertain to the Biomedical Technician. Equipment management principles that maximize life span and minimize life-cycle costs are stressed. Sustainable practices to minimize resource and chemical use are also emphasized.

#### **BET 203** Physiological Monitoring Devices

4

The beginning of this course is an explanation of the types of hazards encountered in the hospital environment and the role of the BMET in controlling them. It continues by discussing the different types of

transducers and electrodes used with biomedical equipment. The course concludes by examining ECG and pressure monitors, concentrating on the test equipment used to test and verify accuracy.

#### **BET 204** Life Support Systems

4

This course is an overview of the types of medical equipment needed to support patients with life threatening problems. Examples of such equipment are defibrillators, pacemakers, ventilators and hemodialysis units. The function of each type of equipment is discussed. Some pieces of equipment are examined thoroughly in relation to functional testing, preventive maintenance, parts identification, and description of circuits.

#### BET 207 Internship

4

Students work for 200 hours in a health care facility or medical equipment repair facility after completing 50 credit hours, having a cumulative GPA of 2.00, and meeting all other program prerequisites and academic requirements prior to their final spring semester. The internship offers students applied healthcare technology management and service experience. In the internship, the student performs preventive maintenance, safety analysis, and minor repairs on selected pieces of medical equipment. Students are expected to adhere to all policies and regulations associated with their internship facility. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (No compensation) (200 hours)

#### **BET 208** Cooperative Educational Experience

4

Students work for 200 hours in a health care facility or medical equipment repair facility after completing 50 credit hours, having a cumulative GPA of 2.00, and having met all other program academic requirements prior to their final spring semester. The internship offers students applied Healthcare Technology Management and service experience. In the internship, the student performs preventive maintenance, safety analysis, and minor repairs on selected pieces of medical equipment. Students are expected to adhere to all policies and regulations associated with their co-op facility. (Compensation) (200 hours)

#### **BET 215** Specialized Medical Systems

3

This course describes the different types of specialized medical equipment found in the hospital environment. Lasers, x-ray, ultrasound imaging and nuclear imaging equipment are examples of the topics

covered. The basic theory and function of each piece of equipment is explained with emphasis on patient and personal safety. Hands-on testing of ultrasound and x-ray imaging systems are performed.

#### CIT 163 Network Architectures, Principles, and Protocols 4

The focus of this course includes, but is not limited to a vendor-neutral view of the knowledge and hands-on practice necessary to design, install and support the modern networking systems. This course builds the student's knowledge of network media, topologies, protocols and standards, as well as network implementation methods and support skills. This course also covers topics such as safety, environmental issues and professionalism. Knowledge and hands-on experience gained in this course will help prepare students for the CompTIA A+ Essentials and Practical Application and Network+ certification examinations.

#### PHA 201 Physiology and Anatomy

3

The structure and functions of the human body as related to biomedical instrumentation are the subject matter covered in this course. Major body systems are discussed, followed by correlations to the physiological variables to be measured and the basic principles of instrumentation that could be used.

## Business Management – Logistics & Supply Chain Management Track

### Course No. Course Title Credits

### LOG 191 Basics of Supply Chain Management

3

The basic concepts in managing the complete flow of materials in a supply chain from suppliers to customers are covered in the Basics module. This module covers manufacturing, distribution, service, and retail industries. This includes the fundamental relationships in the design, planning, execution, monitoring, and control that occur. Coursework is intended to prepare students for the first APICS Certification exam.

### **LOG 192** Transportation Management

3

Past, present, and future trends in product movement to and from the product's origin are reviewed. Time and cost of various transporters and routes are discussed. Government regulation for safe product handling is covered. *Prerequisite:* LOG 191

### **LOG 194** Warehousing and Distribution

3

This course covers all aspects of the supply and distribution chain and management including computer operations, bar codes, resupply, storage, handling, and subcontracting. An overview of the use of industry specific programs is also covered. Materials handling and OSHA requirements will be covered. *Prerequisite:* LOG 191

### LOG 195 Product and Inventory Control

3

Master Planning of Resources and Detailed Scheduling and Planning are covered in this course. The course will explore demand management, sales and operations planning, master scheduling, and distribution planning. The effects of techniques such as MRP, CRP, lean, TOC, will also be covered. Coursework is intended to prepare students for the second and third APICS Certification exams. In addition, standard measurements for inventory and materials will be examined. *Prerequisite*: LOG 191

### LOG 291 Total Quality Management

3

This course focuses on the development of efficient product management from production to customer relations. Various manufacturing processes are evaluated and the importance of employee input is stressed. Products are followed for quality control beyond production to purchase and

warranty. Methodologies like Lean and Six Sigma will be addressed. *Prerequisites:* BUS 101, MAT 121

### **LOG 294** International Logistics

3

This course examines the policies and procedures used in the global transfer of materials and products. Consideration of cultures, manpower, geography, politics, natural resources, and communication are introduced, and strategic planning is coordinated to meet the requirements of international trade. *Prerequisites:* LOG 194, LOG 195

### LOG 297 Internship

4

This is a planned and supervised off-campus experience in the workplace. It may be paid or unpaid. A selection of acceptable work sites and situations is offered to give students exposure to schedules, pressures, and responsibilities that are encountered in the world of work. Students are placed into a contracted facility after completing 45 credit hours and having a 2.00 GPA. With the approval of the program advisor, students can petition to enroll in an internship after completion of 30 credits. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site.

### **LOG 298** Cooperative Educational Experience

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 45 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course (Compensation.) With the approval of the program advisor, students can petition to enroll in an internship after completion of 30 credits.

### ACC 101 Accounting I

3

This introductory course covers the basic principles of accounting: the accounting equation, the accounting cycle, the trial balance, accounting worksheet, adjusting and closing entries and the preparation of basic financial statements will be covered. An emphasis will be placed on learning the basics of microcomputer accounting.

### **BSL 201** Business Law

3

This course is an overview of the law as it pertains to the business environment. An introduction to law, legal process, negligence and contracts, among other topics, will be reviewed.

Prerequisite: BUS 101, BUS 101, ECO 111, MNG 185

### **BUS 101** Introduction to Business

3

This course includes a survey of current business practices with an examination of the topics of management, ethics, organization, finance, marketing, and human resources function. Particular attention will be paid to examining the current economic environment. Students will also learn about basic personal income, household money management and financial planning skills as well as basic economic decision-making skills. This course may also be offered in a distance education format, when available.

### **BUS 201** Project Management

3

Project Management explores the fundamental knowledge, terminology and processes of effective project management. Topics include project integration management, project scope, time and cost management, human resource management, communication, ethics, risk and procurement. Microsoft Project will be introduced.

Prerequisite: CPT 101

### **ECO 211** Contemporary Issues in Macroeconomics

3

This introductory course will familiarize students with the current trends and issues surrounding the field of economics. Changes in global and national trends, with a concentration on the impact these issues have on growth and productivity of global industries, will be examined. *Prerequisites:* ECO 111, BUS 101

### MNG 185 Principles of Management

3

This is an introductory study of the fundamental concepts and approaches to the management of employees and production. Traditional and current organizational methods of planning, decision making, and motivating are reviewed. Emphasis is on diversity in the workforce and ethics in the business environment. This course may also be offered in a distance education format, when available. *Prerequisite:* BUS 101

## MNG 284 Management and Supervision

3

This course deals with the more complex aspects of management. Because of the needs of today's business world, students will be taught not only how to manage people but also how to manage performance, processes, and relationships. Learning to deal with pressure and constant change will be discussed. *Prerequisite:* MNG 185

# **Business Management – Project Management Track**

### Course No. Course Title Credits

### ACC 101 Accounting I

3

This introductory course covers the basic principles of accounting: the accounting equation, the accounting cycle, the trial balance, accounting worksheet, adjusting and closing entries and the preparation of basic financial statements will be covered. An emphasis will be placed on learning the basics of microcomputer accounting.

## **ADT 220** Building Information Modeling, Residential

4

This course expands computer skills to include Building Information Modeling (BIM) for residential construction. This course includes basic Residential building modeling and presentation of the projects in multiviews. It contains sustainability concepts such as site orientation studies for sustainability design.

### **ADT 223** Codes and Ordinances

3

This course introduces student to the many regulatory agencies that govern over the drafting and design field. It emphasizes the preparation of permit information for residential projects along with commercial building regulations for the protection of public health, safety and welfare. This course explains in further detail what it means to be sustainable and what practices can be used in "Green Building" Technology.

### **BSL 201** Business Law

3

This course is an overview of the law as it pertains to the business environment. An introduction to law, legal process, negligence and contracts, among other topics, will be reviewed.

\*Prerequisites: BUS 101, ECO 111, MNG 185\*

### **BUS 101** Introduction to Business

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This course includes a survey of current business practices with an examination of the topics of management, ethics, organization, finance, marketing, and human resources function. Particular attention will be paid to examining the current economic environment. Students will also learn about basic personal income, household money management and financial planning skills as well as basic economic decision-making

skills. This course may also be offered in a distance education format, when available.

### **BUS 110** Business Research and Report Writing

3

This course focuses on the skills and techniques required to research, write and format professional business reports. Topics include locating technical specification, evaluating information, writing specifications, communicating specifications to others, formatting and presenting information. (*Prerequisite:* ENG 101)

### **BUS 201** Project Management

3

Project Management explores the fundamental knowledge, terminology and processes of effective project management. Topics include project integration management, project scope, time and cost management, human resource management, communication, ethics, risk and procurement. Microsoft Project will be introduced.

Prerequisite: CPT 101

### **BUS 210** Sales Negotiation and Customer Relationship

3

This course will enable the student to communicate with prospective internal and external customers to understand their needs, match those needs with the appropriate product or service, present an effective presentation and negotiate contracts. Through the use of terminology, practice in role-plays and an understanding of the appropriate approaches and strategies, the student will gain an understanding of the opportunities in the field of personal selling and what it takes to be successful. (*Prerequisite:* ENG 212)

### **BUS 220** Advanced Project Management

3

This course explores various ways project managers may identify, analyze and mitigate the full range of project risks, cost and communication issues. Using a practitioner approach, students learn risk management techniques by applying them to case studies. Students will also learn to investigate costs, prepare budgets and track expenses. (*Prerequisite:* BUS 201)

### **CPT 210** Advanced Microcomputer

3

This course provides an overview of advanced Microsoft Suite applications, including Microsoft Word, Microsoft Excel, and Microsoft Access. The course will increase business and personal productivity through the use of microcomputer applications. (*Prerequisites*: CPT 101)

## **ECO 211** Contemporary Issues in Macroeconomics

3

This introductory course will familiarize students with the current trends and issues surrounding the field of economics. Changes in global and national trends, with a concentration on the impact these issues have on growth and productivity of global industries, will be examined. *Prerequisites:* ECO 111, BUS 101

### LOG 191 Basics of Supply Chain Management

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The basic concepts in managing the complete flow of materials in a supply chain from suppliers to customers are covered in the Basics module. This module covers manufacturing, distribution, service, and retail industries. This includes the fundamental relationships in the design, planning, execution, monitoring, and control that occur. Coursework is intended to prepare students for the first APICS Certification exam.

### **LOG 195** Product and Inventory Control

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Master Planning of Resources and Detailed Scheduling and Planning are covered in this course. The course will explore demand management, sales and operations planning, master scheduling, and distribution planning. The effects of techniques such as MRP, CRP, lean, TOC, will also be covered. Coursework is intended to prepare students for the second and third APICS Certification exams. In addition, standard measurements for inventory and materials will be examined. *Prerequisite:* LOG 191

### LOG 291 Total Quality Management

3

This course focuses on the development of efficient product management from production to customer relations. Various manufacturing processes are evaluated and the importance of employee input is stressed. Products are followed for quality control beyond production to purchase and warranty. Methodologies like Lean and Six Sigma will be addressed. *Prerequisites:* BUS 101, MAT 121

### MNG 185 Principles of Management

3

This is an introductory study of the fundamental concepts and approaches to the management of employees and production. Traditional and current organizational methods of planning, decision making, and motivating are reviewed. Emphasis is on diversity in the workforce and ethics in the business environment. This course may also be offered in a distance education format, when available. *Prerequisite:* BUS 101

## MNG 284 Management and Supervision

3

This course deals with the more complex aspects of management. Because of the needs of today's business world, students will be taught not only how to manage people but also how to manage performance, processes, and relationships. Learning to deal with pressure and constant change will be discussed. *Prerequisite:* MNG 185

## **Carpentry & Cabinetmaking Technology**

### Course No. Course Title Credits

## CCM 120 Woodworking Hand and Portable Tools & Materials 3

Classroom lecture, demonstrations, and intensive, safe use of hand and portable tools used in the carpentry/cabinetmaking field will introduce the student to woodworking. Also covered are the properties of wood and the fasteners used in the carpentry/cabinetmaking field.

### CCM 121 Woodworking Tools and Machines

3

The safe operations of stationary woodworking equipment are the core elements of this course. Through demonstration and guided application the student will be introduced to the safe use of the table saw, the radial arm saw, the band saw, the planer, the jointer, the overhead router, the drill press, the shaper, and the tenoner.

### CCM 122 Kitchen & Bath Design Standards

1

The focus of this course is in the design and types of construction of the various cabinets and counters found in a typical residential structure. It is essential that all woodworkers know the sizes, construction, and standards used in the construction industry. This course develops the skills necessary to read a set of drawings to either construct or install cabinetry.

### **CCM 123 Mathematics for Carpenters**

1

This course is an examination of basic arithmetic, (adding, subtracting, multiplying, and dividing whole numbers, decimals and fractions) as well as percent, formulas as it applies to the carpentry courses. This will also include costs, conversion of units, linear, square, cubic, and board measures.

### CCM 124 Introduction to Print Reading and Interpretation 1

This course is designed to introduce the students to the basics of print reading and interpretation. The areas of focus include the lines types, symbols, views, title blocks, and revisions that are encountered when dealing with industrial prints. The course is intended to give the students an understanding of industrial prints and how their information is conveyed in both diagrammatic and sentential forms.

## **CCM 125** Cabinet Shop Drawing Fundamentals

This course is designed to introduce the students to the various aspects of cabinetmaking, and how to transfer the necessary information to the cabinetmaker through the use of industrial prints. The areas of focus include the types of cabinets, sketching of cabinets, materials and finishes used in their construction, and the design and hardware requirements that are encountered when dealing with cabinetmaking and the related prints. The course is intended to give the students an understanding of cabinetmaking and the involved prints.

### **CCM 126** Interior Finishes

3

1

Interior finishes is the study and practice of the common materials and procedures used for finishing the interior of a building. Students will be exposed to skills in the safe use of equipment and materials common to the construction industry. Students will be required to demonstrate knowledge of different materials and applications in the construction industry.

### **CCM 127** Cabinet and Component Construction

3

The focus of this course is the cutting of components and construction of cabinets, face frames, doors and drawers common to the cabinetmaking industry. The special operations required on specific wood working machinery and the assembly of these cabinets' components is practiced in this course. Hinges, pulls, slides and similar door and drawer hardware are also studied.

### **CCM 128** Exterior Finishes

3

Exterior finishes is the study and practice of the common materials and procedures used for finishing the exterior of a building. Students will be exposed to skills in the safe use of equipment and materials common to the construction industry. Students will be required to demonstrate knowledge of different materials, applications and estimating procedures of the various resources used in the construction industry.

### **CCM 220** Residential Construction Prints

1

This course is designed to introduce the students to the views, callouts, materials and methods that are prevalent in residential construction. The areas of focus include the creation of residential prints, sketching of details, materials and finishes used in residential construction, and related construction methods. The course is intended to give the students an understanding of residential construction prints.

## **CCM 221** Site Layout & Foundations

3

This course covers the factors needed to be considered before the start of a building project. The kind and type of footing and foundation, the use of the structure, soil and climate conditions, methods of construction, and placement of the structure on the lot are examples of subjects studied in this course. Elements of the building codes and zoning laws that apply to site layout procedures are also examined in this course.

### CCM 222 Stairs

3

This is a course designed to teach the student the basics of stair construction. Covered during this course will be the math calculations necessary to design a safe and functional stairway and the methods of layout and construction necessary to install stairs.

### **CCM 223** Floor/Wall Framing Principles

3

This course covers the construction terminology, materials, methods and practical lessons in the various types of floor and wall framing principles found in the construction industry today. Student involvement with building codes, construction terminology, materials estimating and proper construction techniques give the student a broad knowledge of modern construction practices.

### CCM 224 Roof Framing

3

Extensive study and practice in the framing of a common gable roof are the main elements of this course. Construction terminology, safe framing practices to follow when framing a gable roof, application of building codes, solving rafter lengths and cutting and fitting rafters are all considered. Estimating materials and roof coverings concludes this course.

### CCM 225 Advanced Roof Framing

3

This course is designed as a study of and practice in the construction principles of the many different and complicated roof systems found in the construction industry today. Beginning with the hip roof, then the intersecting roof and special roof systems, such as an unequal slope roof system, this course offers the specialized framing skills sought in industry. *Prerequisite: CCM 224* 

### **CCM 227** Commercial Construction Prints

1

This course is designed to introduce the students to the views, callouts, materials and methods that are commonly used in commercial construction. The areas of focus include the reading and interpretation of

commercial prints, sketching of details, materials used in commercial construction, and the design and material differences as compared to residential construction. The course is intended to give the students an understanding of commercial construction prints.

### **CCM 228** Construction Safety

1

This course is an industry-designed course covering safety topics specific to the construction industry. Students who successfully complete the course will earn an OSHA 10 hour card. The course is taught by a certified OSHA 10 trainer.

### **CCM 268** Construction Estimating

3

This course is designed to introduce the students to the basics of material take off and estimating for a residential structure. The areas of focus include the footing and foundation systems, concrete flat work, the wood framing components, insulation and ventilation systems, interior and exterior finishes, cabinets and millwork. The course is intended to give the students an understanding of the cost, quantities and quality of materials needed to construct a residential structure.

## **Computer Information Technology**

### Course No. Course Title Credits

## CIT 160 Computer Hardware and Operating Systems

The focus of this course includes, but is not limited to the essential skills needed to assemble, configure, repair, upgrade, optimize and perform preventative maintenance on personal computer hardware and operating systems. This course also covers topics such as safety and environmental issues, as well as communication and professionalism. Knowledge and hands-on experience gained in this course will help prepare students for the CompTIA A+ Essentials and Practical Application certification examinations.

### CIT 163 Network Architectures, Principles, and Protocols 4

The focus of this course includes, but is not limited to a vendor-neutral view of the knowledge and hands-on practice necessary to design, install and support the modern networking systems. This course builds the student's knowledge of network media, topologies, protocols and standards, as well as network implementation methods and support skills. This course also covers topics such as safety, environmental issues and professionalism. Knowledge and hands-on experience gained in this course will help prepare students for the CompTIA Network + and CompTIA A+ Essentials.

### CIT 164 TCP/IP Network Design Configuration and Maintenance 4

The focus of this course includes basic and advanced concepts of network and computer addressing with TCP/IP, both v4 and v6. This course provides the foundational information needed for network design, management, maintenance and support. Students will learn to install, configure and support TCP/IP on both Microsoft and Linux based networks, as well as install and support TCP/IP applications and services. Knowledge and hands-on experience gained in this course will help prepare students for the CompTIA A+ Essentials and Practical Application certification examinations, as well as many Cisco certification examinations.

### CIT 166 Linux Networking Service and Support

The focus of this course includes the exploration of tools, techniques, procedures and utilities necessary to design, implement and support a Linux-based Local Area Network. The coursework includes comprehensive details of potential areas of network and system

configuration, troubleshooting, performance monitoring, debugging and writing shell scripts for the purpose of performance monitoring and troubleshooting in a Linux environment will be covered in depth. Knowledge and hands-on experience gained in this course will help prepare students for the CompTIA Linux +.

### CIT 175 Information System Security Design and Administration 3

The focus of this course includes theory and hands-on experience necessary to pass the Certified Information Systems Security Professional (CISSP) certification examination. Students will learn to design and implement a secure and reliable Local Area Network environment. The administration of both Windows and Linux users, groups and their permissions within the network environment, as well as drafting many relevant IT security policy statements, physical security of a network environment will be covered in depth. Students will also begin to prepare a Disaster Recovery plan for a sustainable & secure network environment; students will use this to begin building their own unique portfolio. Knowledge and hands-on experience gained in this course will help prepare students for the CompTIA A+ Essentials and Practical Application certification examinations, as well as many Cisco certification examinations.

### CIT 261 LAN/WAN Design and Maintenance Principles

The focus of this course includes the exploration of factors essential to effective Local and Wide Area Network designs, implementation and maintenance. Students will explore the installation, configuration, and support of Cisco and open source technologies in both LAN and WAN routed environments. Students will also learn to diagnose and resolve unexpected LAN/WAN related problems. The design, implementation and maintenance of VLANS will also be covered. Knowledge and handson experience gained in this course will help prepare students for the Cisco CCNA examination.

### CIT 266 Internetworking Applications

The focus of this course includes, but is not limited to an application of systems theory and hands-on experience gained throughout the program's previous courses. Students will work in teams while using project-based learning to master both old and new concepts of network design, implementation, and support.

4

### CIT 267 Internship

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, maintaining a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (No Compensation) (200 Hours)

### CIT 268 Cooperative Educational Experience

4

This work experience is designed to expose students to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (Compensation) (200 Hours)

### CIT 270 Web Programming, Client Side Scripting

3

The focus of this course includes but is not limited to the knowledge and techniques necessary to author industry standard web pages using HTML, XML, CSS, and Java script. Students will analyze problems and develop solutions for a typical company web page, as well as the web pages installation and support on both Windows Internet Information Server and Linux Apache Web Server platforms. Students will also be exposed to basic techniques used to resolve database issues.

### CIT 271 Web Programming, Server Side Scripting

3

The focus of this course includes, but is not limited to an introduction to server-side scripting and web data access using a currently popular server side application platform and relational database.

### CIT 272 Server and Network Operating System Principles

3

The focus of this course includes the theory and hands-on experience related to both on-site and remote service and support network servers. Coursework includes the interconnection of multiple servers with diverse network operating systems, as well as multiple workstations with diverse operating systems in a multiple VLAN environment.

## CIT 273 Advanced Network Operating System Principles

The focus of this course includes advanced principles and hands-on experience related to industry standard server Network Operating System platforms and server virtualization. Installation, configuration and remote administration of both Host Network Operating Systems and Guest Network Operating Systems will be covered in detail. Techniques relating to service and support of both Microsoft and Linux based server platforms, as well as e-mail platforms Microsoft Internet Information Server and Apache Web server will also be covered in detail. The practical use of various server software and the issues encountered during the integration of a company DMZ with a typical company intranet and the Internet will be covered.

## BUS 201 Project Management

3

Project Management explores the fundamental knowledge, terminology and processes of effective project management. Topics include project integration management, project scope, time and cost management, human resource management, communication, ethics, risk and procurement. Microsoft Project will be introduced.

Prerequisite: CPT 101

### PRG 101 Programming for the Enterprise

3

This introductory programming course is required for Computer Information Technology students. Topics include introductory programming concepts, procedures and functions, object-oriented programming design and implementation, and problem-solving skills. The course focuses on Visual Basic and Hypertext Markup Language (HTML) in a lab environment.

## **Diesel Truck Technology**

This course prepares students with skills labeled by the Commonwealth ofPennsylvania as those used in traditional or evolving green occupation

### Course No. Course Title

Credits

### VMR 141

### **Introduction to Vehicle Maintenance & Repair Technology** 3

This course covers information on hand tools, machines, and equipment common to the Vehicle maintenance field, general service procedures, lubricants, reference manuals, pre-delivery inspection of new and used vehicles and preventive maintenance procedures. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### VMR 142 Brake Systems

3

This course covers information on hydraulic and air brake systems. Mechanical foundation, air supply, service system principles, major components, parking brake systems, brake system diagnostics, service to drum brake assemblies, air lines and hoses, brake switches, antilock brake principles and service are all a part of this course. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### VMR 143 Steering and Suspension Systems

3

This course covers information on steering and suspension systems, theory and principles, independent suspensions, geometric principles, factors affecting wheel alignment, tools and equipment used for steering and suspension, troubleshooting of suspension and steering, wheel bearings service, manual steering and power steering system operation. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### VMR 144 \ Electrical & Electronic Systems

3

This course covers information on electricity, basic electrical circuits, tools and equipment, batteries, charging systems, starting systems, lighting systems, horn, wipers and washers, cooling fans, instrument circuits and body electrical systems. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### VMR 245 HVAC Vehicle Systems

3

This course covers information on the operation of heating and air conditioning as applied to today's cars and trucks. New learning experiences in the troubleshooting and servicing of these systems are taught. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### **DTT 146 Diesel Engine Overhaul**

4

Diesel engine principles of operation on four- and two-stroke engines are covered. Component identification, measurement and replacement, along with complete tear down and overhaul procedures are covered in this course. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### **DTT 155** Diesel Fuel Injection Systems

3

This course covers information on the theory and operation of the different types of diesel fuel injection pumps, nozzles and injectors, including current electronic fuel injectors. In-depth study of fuel system preventive maintenance, troubleshooting diagnostics, injection pump timing and installation procedures, and replacement methods for injectors and nozzles are taught. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### **DTT 241** Diesel Engine Tune-up Procedures

4

This course covers information and practical experience on the operation and approved servicing, troubleshooting, and tune-up procedures on several different current models of diesel engines. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### DTT 252 Manual Transmission Overhaul

3

This course covers the information and service experience in truck manual transmissions. New learning experiences include inspection, replacement, servicing and rebuilding of manual transmissions and power take-off systems. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### DTT 253 Differentials and Drive Line

3

3

4

This course covers the information, overhaul, service and troubleshooting of the rear differentials and drive shafts. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### DTT 254 Automatic Transmission Diagnostics, Basic Hydraulics

This course provides information and practical experience necessary to service automatic transmissions found in many heavy diesel trucks. Systematic troubleshooting procedures are all part of this program to assist the technician in the proper repair procedures, installation, and repair of hydraulic systems. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### DTT 246 Applied Diesel Truck Principles and Applications

This course is intended to re-examine and emphasize specific mechanical skills and diagnostic techniques and to apply them to principles and theories learned in previous courses. Students are expected to hone the specific skills to prepare them for entry-level positions upon graduation. High priority tasks recommended by ASE (Automotive Service Excellence) are covered. This will prepare students to take the ASE technician certification test.

### DTT 247 Internship

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. schedule for meeting the requirement of this experience will be arranged between the student. faculty member and internship site. (No compensation) (200 Hours)

### **DTT 248** Cooperative Educational Experience

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting

all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (Compensation) (200 Hours)

## **IET 101** Introduction to Automotive & Diesel Electronics

This course will provide the student with an introduction to DC electric principles and the different electronic devices seen in modern diesel and automotive vehicles. It will explain instruments and procedures used in testing and measuring these devices.

3

## **Electrical Construction & Maintenance Technology**

## Course No. Course Title Credits

### **ECM 121** Fundamentals of Electricity

3

This course covers general safety principles, basic construction guidelines, laws governing electricity, basic hand tool usage, print reading, electrical safety, circuit construction and operation. This course will also begin to outline use and interpretation of the National Electrical Code (NEC).

### **ECM 122** Introduction to Residential Wiring

3

3

This course will provide information on conductor ratings, wiring styles, grounding, and practical experience in basic residential electrical wiring. DC circuit theory will be introduced in this course.

### ECM 123 Principles & Applied Practices of Residential Wiring

This course is a continuation of Introduction to Residential Wiring with advanced practical experience in lighting branch circuits and special purpose circuits. DC circuit theory will continue to be discussed in this course.

### **ECM 124** Advanced Residential Circuit Installation

3

This course will teach advanced residential wiring. In addition to practical application, examination of skills, troubleshooting, and the maintenance and repair of electrical circuits, the course will cover NEC requirements and installation of residential electrical services. AC circuit theory will be introduced in this course.

### **ECM 125** Service Installation & Troubleshooting

3

This course is a continuation of electrical residential wiring. The focus of the practical experience and problem solving skills are in panel board selection, electric service, and overcurrent protection such as fuses and circuit breakers, as well as low voltage lighting and cooling systems. AC circuit theory will continued to be discussed in this course.

### ECM 126 Commercial Wiring

3

This course provides information and practical experience in installation of electrical systems for commercial buildings, reading architectural drawings, and branch circuit feeders and installation, as well as appliance and special systems found in commercial buildings. Students receive

practical experience in conduit bending. Three phase circuits and inductive loads will be covered in this course.

### **ECM 221** Industrial Motor Control

3

This course will introduce the basic principles and practices of motor control pertaining to magnetism, AC/DC contactors and motor starters, time delay and control devices, motor types and motor theory.

### ECM 222 Advanced Motor Control Circuits

3

This course is a continuation of theory and practice in reversing motor circuits, power distribution systems, solid-state electronic control devices, electro-mechanical relays, reduced voltage and accelerating/decelerating methods. Also covered is an introduction to programmable logic controller (PLC) wiring and programming.

### **ECM 224** Industrial Maintenance I

3

This course covers the theory and practice of industrial mechanics including calculations, rigging, lifting, ladders, hydraulics, lubrication, flexible belt drive systems, vibration and alignment.

### ECM 225 Industrial Maintenance II

3

This course covers the service and repair principles and practices for industrial electrical systems, industrial electronic devices, programmable controllers, welding, boilers, HVAC, mechanical and pneumatic and fluid power systems.

### **ECM 206** Applied Practice and Special Topics

4

This course provides the opportunity to integrate all theory and practical experiences learned in previous modules. It is intended to be student project based which will prepare students for an entry-level position. In addition, special topics such as high voltage will be introduced to further enhance their problem-solving and practical skills.

### ECM 207 Internship

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-

level technician and will be used to grade the student's performance for the course. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (200 Hours) (*No compensation*)

### **ECM 208** Cooperative Educational Experience

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry level technician and will be used to grade the student's performance for the course. (200 Hours) (Compensation)

### **AMT 221** Programmable Logic Controllers

4

This course begins with an introduction to programmable logic controllers (PLCs), their uses and configurations. The course continues with an examination of the different types of hardware devices that are used in conjunction with PLCs. This course will cover the programming of PLCs from the simple relay logic functions to advanced functions used in PLCs. An emphasis is placed on programming projects throughout the course.

### **CCM 220** Residential Construction Prints

1

This course is designed to introduce the students to the views, callouts, materials and methods that are prevalent in residential construction. The areas of focus include the creation of residential prints, sketching of details, materials and finishes used in residential construction, and related construction methods. The course is intended to give the students an understanding of residential construction prints.

### **CCM 227** Commercial Construction Prints

1

This course is designed to introduce the students to the views, callouts, materials and methods that are commonly used in commercial construction. The areas of focus include the reading and interpretation of commercial prints, sketching of details, materials used in commercial construction, and the design and material differences as compared to residential construction. The course is intended to give the students an understanding of commercial construction prints.

## **CCM 228** Construction Safety

This course is an industry-designed course covering safety topics specific to the construction industry. Students who successfully complete the course will earn an OSHA 10 hour card. The course is taught by a certified OSHA 10 trainer.

## **Electronic Engineering Technology**

This course prepares students with skills labeled by the Commonwealth ofPennsylvania as those used in traditional or evolving green occupation

### Course No. Course Title

**Credits** 

## EET 111 🖣

### **DC** Electricity and Instrumentation

3

This course introduces the student to the theory and operation of basic DC circuits, circuit construction, operation and troubleshooting. Basic alternative energy technologies are introduced. The student will also gain practical experience in soldering, digital multi-meter usage, and Ohm's Law applications for testing and troubleshooting electric circuits. Elements of proper disposal of batteries and other circuit components considered to be hazardous waste are included.

### EET 112 N

### **Alternating Current and Passive Devices**

3

This course introduces the student to circuitry basic to AC electrical theory. It identifies the fundamental differences between AC and DC energy sources and circuit components. It also introduces oscilloscope usage, AC units, nomenclature and electromagnetism. The course will also cover inductors, transformers, and capacitors and their effects in AC circuits. Work place energy efficiency and conservation habits are included. The concepts of RCL circuits and their use as passive filters will be covered.

### EET 113

### **Introduction to Semiconductors**

3

This course provides an introduction to semiconductor theory, the different types of semiconductor components, their symbols, characteristics, and uses. Basic power supplies, small signal amplifiers, large signal amplifiers and coupling techniques are covered. This course will concentrate on characteristic waveforms, theory and troubleshooting. Practice is provided regarding diodes, transistors and circuit applications. Sustainable practices to minimize resources and chemical use are an integral part of the course.

### **EET 114 Integrated Circuits and Thyristors**

3

This course provides an introduction to integrated circuits through the operational amplifier, its characteristics and configurations. Amplifier troubleshooting is included, highlighting methods of determining causes of failures and locating problems. This study of integrated circuits will

continue by investigating the operation of integrated voltage regulators and the 555 universal timer. The thyristors family of electronic components is introduced through lecture and experimentation to identify the characteristics, circuitry, and methods of troubleshooting this family of components.

#### 

3

This course begins by familiarizing the student with the fundamental gates, numbering systems and simplification techniques used for the implementation of digital circuitry. It continues by discussing different IC specifications and interfacing problems found between different families of digital logic. The later portion of the course studies the different digital codes, seven segment displays and flip-flops with emphasis placed throughout the course on schematic interpretation, nomenclature and troubleshooting. Complex programmable logic devices are discussed throughout this course.

### **EET 106 Digital Electronics II**

4

This course continues the study of digital electronics through the investigation of the circuits used for counters, registers, arithmetic logic circuits and digital to analog interfacing. It examines the circuitry of each section with emphasis on circuit timing, characteristic waveforms and troubleshooting. Throughout this course the student will build and troubleshoot circuits used as the basis of modern digital machines.

### **EET 211** Communication Electronics I

3

This course begins by familiarizing the student with the fundamental theory, safety, circuits and test equipment used in communications. The course continues to cover modulation techniques, transmitters, receivers, transmission lines and antennas. Construction, safety and testing of communication circuits are an integral part of this course.

### **EET 213** Industrial Electronics

3

This course begins with a study of industrial solid state and logic devices and compares these devices to the standard devices used for small scale electronics. The course continues with a comparison between digital logic and relay logic. The issues of power control and triggering circuits are examined with the use of power transistors, thyristors and associated circuitry. The course concludes with a study of sensors, transducers, output devices and an introduction to control topologies. Safety and troubleshooting are emphasized throughout the course.

### **EET 206** Applied Electronics Principles & Application

This course is intended to provide practical electronic projects and procedures to principles and theories learned over the previous modules. Students will be expected to hone their practical skills to better prepare them for an entry-level position upon graduation. Associate theory will be discussed to enhance the student's practical abilities.

### EET 207 Internship

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (No compensation) (200 hours)

### **EET 208** Cooperative Educational Experience

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing 50 credit hours, having a 2.00 GPA, and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (Compensation) (200 hours)

### **AMT 221** Programmable Logic Controllers

This course is designed to introduce the student to modern programmable logic controllers through theory and hands on experiments with the CompactLogix Programmable Automation Controllers (PAC's). The student will investigate the setup, configuration, programming, and implementation of the controllers through lab exercises designed to have the student build a system from beginning to end. The course then continues with an examination of the different types of hardware devices

that are used in conjunction with PAC's. An emphasis is placed on programming projects throughout the course.

### **AMT 223** Automation and Robotics

4

This course begins with a study of the terminology for automated and robotic systems. Then the students will work with the classifications, coordinate systems, and physical makeup of a robotic system. This course continues with an examination of the power systems, lifting capacities and applications for automation and robots. An investigation of sensors, vision, artificial intelligence, the principles and techniques involved in working with robotics. Safety is emphasized throughout the course.

## BRT 105 Blueprint/Schematic Reading

3

4

This course conveys to the students an understanding of the procedures for reading and interpreting industrial prints. The course includes related peripheral information that will enhance the students' understanding of the diversity that is characteristic of industrial prints. Many types of industrial prints and their applications will be covered during this course.

### CIT 163 Network Architectures, Principles, and Protocols

The focus of this course includes, but is not limited to a vendor-neutral view of the knowledge and hands-on practice necessary to design, install and support the modern networking systems. This course builds the student's knowledge of network media, topologies, protocols and standards, as well as network implementation methods and support skills. This course also covers topics such as safety, environmental issues and professionalism. Knowledge and hands-on experience gained in this course will help prepare students for the CompTIA A+ Essentials and Practical Application and Network+ certification examinations.

## Heating Ventilation & Air Conditioning Technology

## Course No. Course Title Credits

### **HAC 151** Introduction to Refrigeration

4

This is the first of two (2) courses in refrigeration. The course familiarizes its students with safety procedures for the use of tools and materials; basic principles of operation of compressors, condensers, and evaporators; control of systems; and performance of standard tests.

### HAC 152 HVAC/R Electricity I

3

This course introduces students to AC and DC circuits, interpretation of electrical schematics, use of electrical test equipment, regulation of electrical systems, and installation of electrical equipment in accordance with the National Electrical Code.

### HAC 153 Pipefitting

3

The fundamental tools, equipment, and procedures used in pipefitting are covered in this course. Matching system components and making proper connections are studied, planned, and practiced. Applications to domestic water distribution and hot water production will be discussed. The student will also be introduced to duct work fabrication.

### HAC 154 Print Reading and Codes for HVAC

3

HVAC blueprint reading is reviewed in relation to each of the curriculum's systems: heating, ventilation, air conditioning, and plumbing. The symbols and specifications pertaining to each system are explained so that they can be followed in the system's installation and repair. Overview of National Codes and Standards will be discussed.

### HAC 155 HVAC/R Electricity II

3

This course is a continuation to HVAC/R 152. Motor controls used in HVAC systems will be reviewed with emphasis on reading of electrical prints, wiring, and troubleshooting of these systems.

Prerequisite: HAC 152

### **HAC 156** Air Conditioning Systems

4

This course exposes the student to the design, operation, and installation of air conditioning systems. All of the systems' components are studied in relation to their compatibility for ventilation, air handling, and climate control. Calculation formulas are studied, appropriate systems are

discussed, and components are arranged to meet specifications and to comply with codes. *Prerequisite HAC 151* 

### HAC 222 HVAC Controls I

3

The regulation of residential HVAC systems is the focus of this course. All HVAC controlling units from circuit breakers to thermostats are reviewed. Both operational theory and installation are covered for all controls. *Prerequisite: HAC 152* 

### **HAC 223 Hydronic Heating Systems**

3

The boilers and furnaces of forced hot-water heating systems are studied in this course, along with their distribution and return piping. The systems are evaluated for their efficiency as well as for their cost for components, installation, and operation. *Prerequisite: HAC 153* 

### HAC 225 HVAC Controls II

**HAC 251** 

3

The regulation of large-scale, commercial HVAC systems is the focus of this course. Operational theory and compatibility of controls to specific systems are the course's main concentration. Both electric and computer controls are integrated into single and multi-zone air-handling systems. An overview of pneumatic controls will be discussed. *Prerequisite: HAC 222* 

4

The study of gas, fuel oil, electric, and coal heating systems includes the calculation of heat requirements, production, circulation, and loss. Various boiler units and their related accessories are evaluated for fuel choice, efficiency, and installation. Heating needs within a variety of climate zones and formulas to calculate heat loss are studied.

### HAC 254 Refrigeration Applications Commercial Systems

**Heating Systems Design and Installation** 

4

This course stresses the refrigeration systems used to regulate air temperature, humidity, and circulation. Both stationary and mobile units are examined in a variety of large walk-in applications. Proper handling of refrigerants is stressed in accordance with federal regulations. Calibration, testing, and troubleshooting of all components are covered. Electrical, mechanical, and material safety is emphasized.

### Prerequisites: HAC 151, HAC 156

### HAC 256 Applied HVAC Principles and Applications

4

This course is intended to re-examine and emphasize mechanical skills and diagnostic techniques and to apply them to principles and theories learned in previous modules. Students are expected to hone the specific skills to prepare them for entry-level positions upon graduation.

### HAC 257 Internship

4

This work experience is designed to expose the student to an actual industrial, commercial, or clinical environment. Students are placed into a contracted facility after they have completed 50 credit hours, have a 2.0 GPA, and have met all other program prerequisites and academic requirements prior to their final spring semester. The student is expected to adhere to all policies and regulations associated with their work term facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. The schedule for meeting the requirement of this experience will be arranged between the student, faculty member and internship site. (No compensation.) (200 hours)

### **HAC 258** Cooperative Educational Experience

4

This work experience is designed to expose the student to an actual industrial, commercial, or clinical environment. Students are placed into a contracted facility after they have completed 50 credit hours, have a 2.0 GPA, and have met all other program prerequisites and academic requirements prior to their final spring semester. The student is expected to adhere to all policies and regulations associated with their work term facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (Compensation) (200 hours)

## **Physical Therapist Assistant**

### Course No. Course Title Credits

# PTA 103 Introduction to Physical Therapy for the Physical Therapist Assistant

2

This course introduces the student to the physical therapy profession. Topics include history of physical therapy, the variety of physical therapy practice settings, an introduction to the Guide to PT Practice, the Code of Ethics and Standards of Ethical Conduct for the PT/PTA, the laws and regulations that oversee the profession, an introduction to principles of teaching and learning as they apply to patient instruction, the PT/PTA relationship, the PTA/patient relationship, cultural competence, patient confidentiality, and Evidence Based Practice (EBP).

### PTA 110 Patient Care

3

This course introduces students to the skills necessary to provide basic patient management during physical therapy interventions. Topics include assessing/monitoring vital signs, body mechanics, positioning and draping, ROM, bed mobility, transfer techniques, gait training, appropriate selection and use of assistive devices, wheelchair management, and documentation.

### PTA 112 Physical Therapy Procedures I

2

This course introduces students to the therapeutic use of physical agents. Students will learn about inflammation, pain, tone abnormalities, and mobility limitations and the physical agents commonly used to treat these impairments. Topics studied and applied include superficial heat, cryotherapy, ultrasound, diathermy, therapeutic massage, and basic wound care. Students will learn principles and application techniques. Students will also participate in training and certification for CPR and basic first aid.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100

### PTA 115 Principles of Therapeutic Excercise

2

This course introduces students to the therapeutic use of physical agents. Students will learn about inflammation, pain, tone abnormalities, and mobility limitations and the physical agents commonly used to treat these impairments. Topics studied and applied include superficial heat, cryotherapy, ultrasound, diathermy, therapeutic massage, and basic wound care. Students will learn principles and application techniques.

Students will also participate in training and certification for CPR and basic first aid.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101 L, MTR 100

### PTA 201 Pathophysiology

3

This course addresses the processes of inflammation and healing and disease processes relevant for the PTA student and practitioner. Topics include pathologies of the immune system, cardiovascular system, respiratory system, musculoskeletal system, neurological system, integumentary system, digestive system, urinary system, and reproductive system, in addition to topics related to neoplasms, the intensive care unit, and the geriatric patient. Students will discuss the medical and pharmaceutical management of these pathologies and the effect on the provision of physical therapy services.

Prerequisites: HAP 101, HAP 101 L, MTR 100

### PTA 210 Applied Kinesiology

4

This course delivers an in-depth study of the musculoskeletal system and body movement. Students will learn the principles and techniques of manual muscle testing and goniometry. Students apply biomechanical principles and muscle actions to functional human motion, with attention to applying those principles to gait and postural analysis.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101 L, MTR 100

### PTA 212 Physical Therapy Procedures II \*

3

This course is the continuation of PTA 112 and focuses on the therapeutic use of electrical and mechanical agents. Specific topics include, hydrotherapy, traction, compression, electrical modalities, light therapy, and ultraviolet radiation. Students will learn principles and application techniques for the agents.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101 L, MTR 100, HAP 102, HAP 102 L, PTA 112, PTA 115, PTA 201, PTA 210, CLI 270

### PTA 215 Interventions in Musculoskeletal

4

This course is an integration of previously learned material and new skills/techniques applied to the prevention, treatment, and management of injuries and conditions associated with the musculoskeletal system. *Prerequisites:* PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100, HAP 102, HAP 102L, PTA 112, PTA 115, PTA 201, PTA 210, CLI 270

### PTA 216 Interventions in Neurology

4

This course is an introduction to neurorehabilitation for the PTA. Topics include normal movement development across the lifespan, motor control, motor learning, and neuroplasticity, along with the integration of previously learned material and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100, HAP 102, HAP 102L, PTA 112, PTA 115, PTA 201, PTA 210, PTA 212, PTA 215, CLI 270

### PTA 217 Topics in Rehabilitation

4

This course will explore different topics in rehabilitation including cardio/pulmonary issues, diabetes, amputations, burns, prosthetics/orthotics, gender specific issues, and vestibular issues. This course will provide the students with the opportunity to incorporate their knowledge of treatment procedures and techniques previously learned to specific populations in rehabilitation.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100, HAP 102, HAP 102L, PTA 112, PTA 115, PTA 201, PTA 210, PTA 212, PTA 215, CLI 270

### PTA 220 Career Readiness

1

This course will provide students with the tools necessary for professional development after graduation, including but not limited to resume writing, interview skills, and preparation for the NPTE for PTA's.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100, HAP 102, HAP 102L, PTA 112, PTA 115, PTA 201, PTA 210, PTA 212, PTA 215, CLI 270

### PTA 250 Professional Exploration

2

The purpose of this course is to provide students with the opportunity to solve clinical problems, improve communication skills, and reinforce professional behavior and ethical practice. Students will plan, create, and share an exploratory project with their peers.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100, HAP 102, HAP 102L, PTA 112, PTA 115, PTA 201, PTA 210, PTA 212, PTA 215, CLI 270

## CLI 270 Clinical Experience I

This is the first of three clinical experiences that will take place during the students' third semester in the PTA program. The focus is on the application of knowledge, skills and behaviors that the PTA student has learned during their didactic and practical classroom work. During this clinical experience, students should become comfortable with basic patient care skills. During the three weeks, students have the opportunity to participate in direct patient care under the direction and supervision of a licensed physical therapist or physical therapist assistant assigned by the facility.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100, HAP 102, HAP 102L, PTA 112, PTA 115, PTA 201, PTA 210

### CLI 280 Clinical Experience II

5

This is the second of three clinical experiences that will take place during the students' fifth semester in the PTA program. The focus is on the application of knowledge, skills and behaviors that the PTA student has learned during their didactic and practical classroom work. During the six weeks, students will have the opportunity to participate in direct patient care under the direction and supervision of a licensed physical therapist or physical therapist assistant assigned by the facility. At this point, students have completed all didactic coursework and should be able to apply those skills to real patient care. In addition to the basic patient care skills, students should be able to implement and progress treatment plans outlined by a physical therapist in a professional manner. *Prerequisites:* PTA 103, PTA 110, HAP 101, HAP 101 L, MTR 100, HAP 102, HAP 102 L, PTA 112, PTA 115, PTA 201, PTA 210, PTA 212, PTA 215, CLI 270, PTA 216, PTA 217, PTA 220, PTA 250

### CLI 290 Clinical Experience III

5

This final clinical experience will take place after CLI 280 in the fifth semester. The focus of this final clinical experience is to prepare the PTA student to function as an entry-level PTA. During the six weeks, students have the opportunity to participate in direct patient care under the direction and supervision of a licensed physical therapist or physical therapist assistant assigned by the facility. Students have completed all didactic coursework and have completed 360 hours of clinical education experience. As in CLI 270 and 280, students should be competent at all basic patient care skills, at following a physical therapist's plan of care and at progressing patients as appropriate. They should be independent with documentation and with working under the rules outlined by the APTA and by the specific clinic.

Prerequisites: PTA 103, PTA 110, HAP 101, HAP 101L, MTR 100, HAP 102, HAP 102L, PTA 112, PTA 115, PTA 201, PTA 210, PTA 212, PTA 215, CLI 270, PTA 216, PTA 217, PTA 220, PTA 250

### HAP 101 Human Anatomy and Physiology I

3

This course is the first semester of a medically-oriented study of the structure and function of the human body. It is designed for students specializing in health-related and science programs. Topics include basic biochemistry; basic genetics; cells; tissues; and the integumentary, skeletal, muscular, endocrine and nervous systems. Successful completion of recent high school biology and chemistry courses is highly recommended.

### HAP 101L Human Anatomy & Physiology I Lab

1

This lab is designed to enhance and reinforce topics covered in HAP 101 lecture. Topics will include body organization, cell anatomy, histology and tissues organization, the integumentary system, the skeletal system, the muscular system, and the nervous system. In addition to the lab manual, this course will utilize McGraw Hill's Anatomy and Physiology Revealed (APR) which is a computerized system that enables students to explore the human anatomy and physiology through the use of a virtual dissection, histological review, and self-paced quizzing.

### HAP 102 Human Anatomy and Physiology II

3

This course is the second semester of a medically-oriented study of the structure and function of the human body. Topics include digestive, cardiovascular, respiratory, lymphatic, immune, urinary, reproductive systems and the inclusion of anatomical topography and transverse anatomy.

Prerequisite: HAP 101 & HAP 101 L.

### HAP 102L Human Anatomy & Physiology II Lab

This lab is designed to enhance and reinforce topics covered in HAP 102 lecture. Topics will include the blood and circulation, the cardiovascular system, the lymphatic system and immunity, the respiratory system, the urinary system, the reproductive system, the digestive system, and the endocrine system, as well as human development and genetics and metabolic function and nutrition. In addition to the lab manual, this course will utilize McGraw Hill's Anatomy and Physiology Revealed (APR) which is a computerized system that enables students to explore

the human anatomy and physiology through the use of a virtual dissection, histological review, and self-paced quizzing. *Prerequisiste*: HAP 101 & HAP 101L.

# MTR 100 Medical Terminology

1

This course is a survey of the terminology used routinely in the medical environment. It will begin with a learning of the common root words used in constructing medical terms and integrate commonly used medical acronyms and abbreviations. The information will be presented according to anatomical systems. The student will be responsible for knowing the written and auditory recognition of the terminology reviewed.

<sup>\*</sup>Note – Some of the course information has been updated to reflect current program guidelines and is solely placed on this website. They are not found in the printed copy of the 2016-2017 Johnson College Catalog.

# Radiologic Technology

# Course No. Course Title Credits

# RAD 132 Radiologic Positioning I/Lab

4

This course introduces the student to basic terminology used in radiographic positioning. The curriculum provides a comprehensive study of theory and principles of basic positions of the upper and lower extremities, bony thorax, chest and abdomen. This course is designed to develop competency through a combination of lecture and laboratory. Further practice will come in the actual clinical setting under the guidance of an assigned clinical radiographer.

# RAD 133 Radiologic Exposures & Principles I/Lab

4

This course is an introduction to the fundamental concepts and techniques relating to the production of x-rays. Emphasis through lecture and lab, is placed on the factors affecting an acceptable radiograph: contrast, density, recorded detail and visibility of detail. Students will display work with darkroom applications, display basic radiation protection standards, be familiar with assorted radiographic equipment.

# RAD 134 Introduction to Radiology/Patient Care

2

This course will introduce the student to the field of radiology. It will review today's health care and hospital environment, accrediting bodies, and the professional ethics guiding the health worker today. The profession will be examined to assist students in committing themselves to a career in Radiography. This course also provides a comprehensive study of basic concepts regarding patient care. The student will study proper body mechanics, transfer techniques, medical asepsis, communication skills with patients and co-workers, how to measure vital signs, how to deal with medical emergencies, and isolation techniques. Professionalism and legal implications will also be discussed.

# RAD 136 Radiologic Exposures & Principles II/Lab

4

A continuation of RAD 133, through lecture and lab, this course is designed to acquaint students with the comprehensive analysis of the factors affecting image quality requiring integration of all exposure and technical factors previously learned. The student will learn the components, principles and operation of digital imaging systems and the factors that impact image acquisition, display, and retrieval in radiology. *Prerequisites:* RAD 131, RAD 132, RAD 133, RAD 134, HAP 101

# **RAD 137** Radiologic Nursing Procedures

1

This course is a continuation of patient care techniques. It progresses into theory and advanced application of the clinical concepts of patient care and medical techniques in the radiology department. The student will become familiar with venipuncture, contrast media use and interactions, sterile technique, history taking and basic pharmacology. *Prerequisites:* RAD 132, RAD 133, RAD 134

# **RAD 138** Radiation Biology & Protection

3

This course describes the effects of ionizing radiation on cells in the human body. Special emphasis is placed on how the effects of x-ray radiation affect biological tissue. Radiation protection and monitoring concepts will be reviewed. The student will learn the importance of applying the ALARA concept for patient and staff safety. Discussion of regulatory agencies and their involvement in radiation protection will also be included. Stochastic and Non-stochastic effects are also discussed. *Prerequisites:* RAD 132, RAD 133, RAD 134, HAP 102

### RAD 145 Radiologic Positioning II/Lab

3

This course is a continuation of RAD 132. The course is designed to develop competency in diagnostic procedures of the vertebral column, cranium, gastrointestinal system, biliary tract, and urinary system. Competence will be demonstrated on a weekly basis in a laboratory setting. Further practice will come in the actual clinical setting under the guidance of an assigned clinical radiographer.

Prerequisites: RAD 132, RAD 133, RAD 134, HAP 101

### RAD 231 Radiologic Pathology

2

This course emphasizes human pathology on a gross anatomic level. Inflammatory, immunology, infections, traumatic and neoplastic processes will be emphasized. Specific diseases will be studied in further depth from an organ system approach.

Prerequisites: RAD 135, RAD 136, RAD 137, HAP 102

# **RAD 233** Image Analysis

2

This course is designed to provide students with a basis for analyzing radiographic images for diagnostic purposes. Students will become acquainted with the importance of minimum imaging standards, problem solving technique for image evaluation and the factors that can affect the image quality. Students will be responsible for looking at radiographs to

decide whether they are diagnostically acceptable and assure consistency in the production of quality images.

Prerequisites: HAP 102, RAD 135, RAD 136

### **RAD 234** Advanced Exposures

2

This course is an introduction of the basic principles and techniques of digital radiology. Topics include image acquisition, display, archiving along with principles of both digital system and film quality assurance and maintenance.

Prerequisites: RAD 135, RAD 136, RAD 137, PRA 132

# **RAD 236** Advanced Medical Imaging

2

This course familiarizes the student with the different modalities within the field of radiology. The students will explore topics in specialized areas such as CT, MRI, Nuclear Medicine, Mammography, PET, Bone Densitometry, US, and Radiation Oncology. The students will review, cross sectional anatomy, trauma radiology, myelograms, arthrograms and pediatric imaging.

Prerequisites: RAD 138, RAD 234, PHY 201

# **RAD 237** Registry Seminar

2

This course is established to assist the student in preparing for the registry examination given by the American Registry of Radiologic Technologists (ARRT). *Prerequisite:* PRA 231. *Must pass competency examination with a minimum score of 77%*.

# PRA 131 Clinical Practicum I

1

An introduction to the clinical radiographic experience applies radiographic theory and provides learning experiences to help the student acquire expertise and proficiency in a variety of diagnostic radiographic procedures at specified levels of competency. Students will work on various radiographic equipment, and show competency in anatomy and physiology and radiographic positioning. Additionally, students will integrate knowledge of patient care, medical ethics and apply critical thinking skills into daily radiographic practice. Students will spend a minimum of 16 per week hours in the clinical environment. Students must have verification of current CPR certification, annual health examination, immunizations, and all current clearances required by Johnson College.

Prerequisites: RAD 132, RAD 133, RAD 134, HAP 101

### PRA 132 Clinical Practicum II

2

A continuation of the clinical radiography experience applies radiographic theory and provides learning experiences to help the student acquire expertise and proficiency in a variety of diagnostic radiographic procedures at specified levels of competency. Students will display basic radiation protection standards, become familiar with various radiographic equipment, and show competency in anatomy and physiology as well as radiographic positioning. Additionally, students will integrate knowledge of patient care, develop critical thinking skills and medical ethics into daily radiographic practice. Students will spend a minimum of 40 hours in the clinical environment per week, which will include one weekend shift. Students must have verification of current CPR certification, annual health examination immunizations, and all current clearances required by Johnson College.

Prerequisites: PRA 131, HAP 102, RAD 135, RAD 136, RAD 137.

### PRA 231 Clinical Practicum III

1

A continuation of the clinical radiography experience applies radiographic theory and provides learning experiences to help the student acquire expertise and proficiency in a variety of diagnostic radiographic procedures at specified levels of competency. Students will work on various radiographic equipment, and show competency in anatomy and physiology and radiographic positioning. Additionally, students will integrate knowledge of patient care, develop critical thinking skills and medical ethics into daily radiographic practice. Students will spend a minimum of 16 hours per week in the clinical environment. Students must have verification of current CPR certification, annual health examination, immunizations and all current clearances required by Johnson College. *Prerequisite:* PRA 132

### PRA 232 Clinical Practicum IV

1

The clinical radiography experience applies radiographic theory and provides learning experiences to help the student acquire expertise and proficiency in a variety of diagnostic radiographic procedures at specified levels of competency. Students will work on various radiographic equipment, and show competency in anatomy and physiology and radiographic positioning. Additionally, students will integrate knowledge of patient care, develop critical thinking skills and medical ethics into daily radiographic practice. Students will spend a minimum of 24 hours per week in the clinical environment. During this final practicum, students will be offered an optional rotation through specialized modalities. Students must have verification of current CPR

certification, annual health examination, immunizations and all current clearances required by Johnson College. *Prerequisite:* PRA 231

# HAP 101 Human Anatomy and Physiology I

3

This course is the first semester of a medically-oriented study of the structure and function of the human body. It is designed for students specializing in health-related and science programs. Topics include basic biochemistry; basic genetics; cells; tissues; and the integumentary, skeletal, muscular, endocrine and nervous systems. Successful completion of recent high school biology and chemistry courses is highly recommended.

# HAP 101L Human Anatomy & Physiology I Lab

1

This lab is designed to enhance and reinforce topics covered in HAP 101 lecture. Topics will include body organization, cell anatomy, histology and tissues organization, the integumentary system, the skeletal system, the muscular system, and the nervous system. In addition to the lab manual, this course will utilize McGraw Hill's Anatomy and Physiology Revealed (APR) which is a computerized system that enables students to explore the human anatomy and physiology through the use of a virtual dissection, histological review, and self-paced quizzing.

# HAP 102 Human Anatomy and Physiology II

3

This course is the second semester of a medically-oriented study of the structure and function of the human body. Topics include digestive, cardiovascular, respiratory, lymphatic, immune, urinary, reproductive systems and the inclusion of anatomical topography and transverse anatomy.

Prerequisite: HAP 101 & HAP 101 L.

### HAP 102L Human Anatomy & Physiology II Lab

1

This lab is designed to enhance and reinforce topics covered in HAP 102 lecture. Topics will include the blood and circulation, the cardiovascular system, the lymphatic system and immunity, the respiratory system, the urinary system, the reproductive system, the digestive system, and the endocrine system, as well as human development and genetics and metabolic function and nutrition. In addition to the lab manual, this course will utilize McGraw Hill's Anatomy and Physiology Revealed (APR) which is a computerized system that enables students to explore the human anatomy and physiology through the use of a virtual dissection, histological review, and self-paced quizzing.

Prerequisiste: HAP 101 & HAP 101L.

# MTR 100 Medical Terminology

1

This course is a survey of the terminology used routinely in the medical environment. It will begin with a learning of the common root words used in constructing medical terms and integrate commonly used medical acronyms and abbreviations. The information will be presented according to anatomical systems. The student will be responsible for knowing the written and auditory recognition of the terminology reviewed.

# PHY 201 Imaging Physics

3

This course is structured to help the student understand the physics of radiology and the equipment used to produce x-rays, the electrical principles of x-ray production, and atomic physics.

Prerequisite: PHY 101

# Veterinary Technology

\*Note – Some of the course information has been updated to reflect current program guidelines and is solely placed on this website. They are not found in the printed copy of the 2016-2017 Johnson College Catalog.

### Course No. Course Title

**Credits** 

# VET 101 Introduction to Veterinary Technology/

**Clinical Management** 

1

This course focuses on the duties and responsibilities of veterinary technicians as well as job opportunities in the field of veterinary technology. The human-animal bond and ethical issues are introduced to the student. This course provides students with the basic understanding of operations in a clinical setting in addition to office and managerial duties of technicians such as scheduling, ordering, inventory control, teamwork dynamics, and compassion fatigue. Students are required to attend an OSHA training in order to complete clinical assignments (a certificate will be granted upon completion). Students may be required to participate in activities of the Johnson College Animal Care Center to gain hands on experience to enhance the course material.

### **VET 102** Clinical Applications for Large Animals

2

This course introduces students to large animals (horses, cows, goats, sheep, and pigs). Students will learn about restraint and handling of large animals with an emphasis on safety. Material covered will include basic nursing care (medicating, physical exams, sample collection, as well as other routine procedures). Students will familiarize themselves with the large animal setting (farms/barns) in addition to various tools and techniques found in large animal medicine.

Kennel rotations are associated with this course requiring weekend animal rotations.

### VET 102L Clinical Applications for Large Animals Lab

2

This lab class provides students with hands-on experience with various large animal species. Animals will vary with availability. Tetanus and rabies inoculation are required and documentation must be provided.

Kennel rotations are associated with this course requiring weekend animal rotations.

# **VET 103** Clinical Applications for Small Animals

2

This course provides information on skills needed to work in a clinical setting. Emphasis will be on safety, handling and restraint techniques,

general patient care and assessment, and medicating small animals. The course will also concentrate on rabbits, rats, mice and guinea pigs. Lab animal rotations are associated with this course requiring weekend animal rotations.

# VET 103L Clinical Applications for Small Animals Lab

1

This lab class provides students with hands-on experience with canine, feline, and various lab animal species (rabbits, mice rats, and guinea pigs). Animals will vary with availability. Students must provide proof of wavier or of pre-exposure for the rabies inoculation and tetanus inoculation in order to participate in the lab. NOTE: successful completion of this course requires a 70% or better score on both the Midterm and Final Laboratory Practical Exams. Lab animal rotations are associated with this course requiring weekend animal rotations.

### **VET 104** Animal Anatomy and Physiology I

.

This course places an emphasis on cellular anatomy and morphology, principles of histology, and microscopic anatomy of tissues. Genetics, cellular reproduction, anatomy & physiology of blood, skeletal, muscle and nervous systems will be included in this course noting specific differences between species and emphasizing clinical use. Proper terminology is utilized to describe the major organs of each system, their location and functions.

### VET 104L Animal Anatomy and Physiology Lab I

1

This lab course emphasizes the proper use of microscopes as well as safety in the lab. Topics will include cell morphology and histology. The skeletal system will also be covered.

# VET 105 Animal Anatomy and Physiology II

3

This course is a study of the anatomical and physiological systems of animals that may be encountered by the veterinary technician. It provides exposure to major anatomical and physiological systems, noting specific differences between species and emphasizing clinical use. Proper terminology is utilized to describe the major organs of each system, as well as their locations, and functions. The course will cover the following systems: nervous, integument, special senses, cardiac, respiratory, immune, alimentary, endocrine, urinary, and reproduction as well as basic avian anatomy and physiology. *Prerequisites:* VET 101, VET 104

# VET 105L Animal Anatomy and Physiology Lab II

1

This lab course emphasizes anatomical study through the dissection of the cat. To help the student understand species variation, other organs will be used in the lab. *Prerequisites*: VET 104L

### **VET 106 Animal Husbandry/Breeds/Nutrition**

2

This course introduces students to the basic care and management of common companion and farm animals as well as breeding. Various breeds of each species are highlighted as well as basic nutritional requirements. Reptile and avian species, husbandry and reproduction are covered as well. Students may be required to participate in activities of the wellness center to gain hands-on experience to enhance the course material. *Prerequisite*: VET 101

### **VET 201** Pharmacology & Anesthesia

3

This course is the study of the theory and application of pharmacology. Classifications of drugs and their usage, with specific information on mechanism of action, side effects, and dosing will be discussed. Students will be exposed to drug calculations and be expected to prepare and administer medications. This course covers dispensing medication and client instruction on how to give medications as well as educate clients on adverse reactions to medications.

*Prerequisites:* VET 101, VET 102, VET 103, VET 104, VET 105, CHE101, CHE101L

# VET 202 Clinical Pathology

- 2

This course is designed to familiarize the student with diagnostic laboratory procedures commonly performed in the veterinary field. Discussion includes clinical chemistry, veterinary hematology, urology and cytology. In addition, sample collection and handling is covered along with instrumentation and equipment maintenance. *Prerequisites:* VET 101, VET 104, VET 104L, VET 105, VET 105L

### VET 202L Clinical Pathology Lab

1

This lab is designed to enhance and reinforce lecture and/or demonstrations by allowing students the opportunity to practice a variety of laboratory tests common to veterinary medicine. Students will perform hematological analyses, clinical chemistries, and urinalysis in addition to ear and skin cytology. *Prerequisites:* VET 101, VET 102, VET 102L, VET 103L, VET 105L

# VET 203 Parasitology

2

This course is the study of common internal and external parasites found in domestic and food animals. The characteristics, methods of transmission, life cycle and clinical signs commonly seen in animals will be studied including a review of safety concerns when dealing with these samples. *Prerequisites:* VET 101, VET 104, VET 104L

# VET 203L Parasitology Lab

1

This course allows students to practice sample collection, preparation and evaluation of samples for parasitologic examination. Laboratory sessions will include techniques for identifying intestinal, blood and external parasites. *Prerequisite:* VET 101, VET 104, VET 104L

### VET 204 Clinical Rotation I

1

Each student will be assigned to specific areas within the Johnson College Animal Care Center. Areas will include radiology, lab, kennel, reception, pharmacy, and examination rooms, as well as other areas within the facility. Students will work alongside a licensed technician to hone skills learned in lecture and in labs. NOTE: successful completion of this course requires a 70% or better score on the written final exam, oral/practical exam, and instructor evaluations' of students.

Prerequisite: Students must have successfully completed all first year courses before clinical rotations may be taken.

# VET 205 Surgical Nursing I and Lab

2

This course focuses on anesthesia principles and practices and standard surgical procedures. This course covers the role of a surgical technician in regards to preoperative procedures, prepping, scrubbing, assisting, and post-operative procedures, as well as client education/communication. This course includes 15 hours of laboratory time. *Prerequisites:* VET 102, VET 102L, VET 103, VET 103L, VET 105L

# VET 206 Microbiology & Immunology

2

This course will focus on providing a foundation in microbiology for veterinary technicians. A general understanding of bacterial, viral, and fungal characteristics will be covered with an emphasis on sample collection, laboratory diagnostics, treatment & prevention and client education. In addition, this course will introduce some basic concepts of humoral and cellular immunity, emphasizing uses in laboratory diagnostics and vaccines.

Prerequisites: VET 101, VET 104, VET 104L

# VET 206L Microbiology & Immunology Lab

This course involves identifying bacteria common to veterinary medicine, as well as performing biochemical & other tests used to identify microorganisms. Sample collection, handling, preparation & precautions are stressed. This course also includes study in identification of certain mycoses, including dermatophytes as well as certain viral diseases.

# VET 207 Surgical Nursing II and Lab

2

1

Dental procedures will be a focus of this course. Additionally, this course focuses on surgical procedures (spays and neuters as well as other common surgeries of both small and large animals) as well as ECG application and interpretation for patient monitoring. The course places special emphasis on pain management, wound management, physical therapy and other nursing care duties and responsibilities of technicians. This course includes 30 hours of lecture and 15 hours of lab. *Prerequisite:* VET 106, VET 205

### VET 208 Clinical Rotation II

1

Each student will be assigned to specific areas within the Animal Care Center. Areas will include treatment, lab, kennel, and surgery, as well as other areas within the facility. Students will work alongside a licensed technician to hone skills learned in lecture and in labs. NOTE: successful completion of this course requires a 70% or better score on the written final exam, oral/practical exam, and instructor evaluations' of students. Prerequisite: Students must have successfully completed all first year courses before clinical rotations can be taken.

### **VET 209 Veterinary Radiology**

1

This course is a study of radiological procedures for domestic animals common to veterinary medicine. It includes an overview of radiographic properties and equipment, restraint and positioning techniques, as well as exposing, developing and assessing radiographs. Record keeping and safety issues are discussed in addition to specialized radiographic studies. Students are provided hands-on opportunity to practice the techniques learned in class. *Prerequisites:* VET 101, VET 102, VET 102L, VET 103, VET 103L, VET 105, VET 105L

### **VET 209L Veterinary Radiology Lab**

1

This course provides a hands-on study of radiological procedures for domestic animals common to veterinary medicine. It encourages the practice of how to work with radiographic properties and equipment, restraint and positioning techniques, as well as exposing, developing and assessing radiographs. Appropriate record keeping and safety issues are reviewed in addition to specialized radiographic studies. Students are provided hands-on opportunity to practice the techniques learned in lecture. *Prerequisites:* VET 101, VET 102, VET 102L, VET 103, VET 103L, VET 105, VET 105L

# **VET 210** Intensive Care Applications

3

This course is a study of the technician's role in emergency and intensive care. Students will study fluid therapy, blood transfusion, CPR and other procedures associated with emergency and critical care protocols. This course also includes 8 hours of exposure to emergencies in an emergency facility. *Prerequisites:* VET 101, VET 102, VET 102L, VET 103, VET 103L, VET 105, VET 105L

### **VET 211 Diseases and Zoonoses**

3

This course is the study of diseases affecting domestic animals. Etiology, clinical signs, diagnoses, prevention, treatments and public health issues are stressed. A study of vaccine protocols for each species is also included. *Prerequisites:* VET 101, VET 102, VET 102L, VET 103, VET 103L, VET 105, VET 105L, VET 106, VET 201, VET 206, VET 206L

# VET 212 Internship

4

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (No compensation)

### **VET 213** Cooperative Educational Experience

This work experience is designed to expose the student to an industrial, commercial, or clinical environment. Students are placed into a contracted facility after completing and meeting all other program prerequisites and academic requirements prior to their final spring semester. Students are expected to adhere to all policies and regulations associated with the facility. Students will work on projects selected to expose the student to "live" work situations, while building upon the

student's knowledge, skill and attitude as an entry-level technician and will be used to grade the student's performance for the course. (Compensation)

# **Welding Technology**

# Course No. Course Title Credits

# WTC 111 Shielded Metal Arc Welding 1

3

This course is designed to teach the student the basic safety, principles, practices, and applications of SMAW. This course covers welding trade theory including safety, tool usage, equipment set up and standard terms and definitions. Basic welding and cutting techniques in the flat and horizontal position, tank safety and welding safety will be taught. The course also covers basic metallurgy and how to identify weld problems and defects.

# WTC 112 Gas Metal and Flux Cored Arc Welding 1

3

This course is designed to teach the student the basic principles, practices, and applications of GMAW and FCAW. This course covers gas metal arc welding and flux cored arc welding in the flat and horizontal position. Students will be given classroom theory and hands on instruction in both processes. American Welding Society weld symbols will also be covered.

### WTC 113 Gas Tungsten Arc Welding 1

3

This course introduces students to the GTAW welding process. The equipment, consumables, practices and procedures are discussed, with extensive practice in the GTAW process in the flat and horizontal position. This course will also cover inspection tools, destructive and non-destructive testing methods and an overview of the AWS D1.1 welding code.

### WTC 114 Shielded Metal Arc Welding II

3

This course covers the most advanced SMAW practices. The concentration will be on vertical and overhead welding techniques conforming to the AWS structural welding code. Weld problems, corrections and carbon are gouging techniques will be covered in this course. Open roots will be taught for the pipe welding process as well as pipe welding codes, tools, materials and equipment needed for pipe welding. Prerequisite WTC 111.

### WTC 115 Gas Metal and Flux Cored Arc Welding II

3

This course is designed to teach the student advanced principles, practices, and applications of GMAW and FCAW. This course covers gas metal arc welding and flux cored arc welding in the vertical and

overhead position. Students will be given classroom theory and hands on instruction in both processes. *Prerequisite WTC 112* 

# WTC 116 Gas Tungsten Arc Welding II

3

This course is designed to teach the student advanced principles, practices, and applications of the GTAW welding process. This course covers gas metal arc welding and flux cored arc welding in the vertical and overhead position. Open roots will be taught for the pipe welding process. *Prerequisite: WTC 113* 

### **BRT 101** Blueprint Reading

3

This course provides detailed information to help the students gain the skills that are required to read prints that are most common in the welding industry. Basic lines and view, dimensions, bill of materials and structural shapes are emphasized in this course. Accuracy of measurements and attention to detail will be stressed in the course.

# MAT 100 Applied Mathematics for Welders

3

This course is an examination of basic arithmetic, (adding, subtracting, multiplying, and dividing whole numbers, decimals and fractions) as well as percents. This course also covers metric system measurements, computation of geometric measure and shapes, angular development and measurement, and including bends, stretch-outs, economical layout, and takeoffs.

### **General Education Courses**

# **Business**

# Course No. Course Title Credits ACC 101 Accounting I This introductory course covers the basic principles of accounting: the accounting equation, the accounting cycle, the trial balance, accounting worksheet, adjusting and closing entries and the preparation of basic financial statements will be covered. An emphasis will be placed on learning the basics of microcomputer accounting. BSL 201 Business Law This course is an overview of the law as it pertains to the business environment. An introduction to law, legal process, negligence and contracts, among other topics, will be reviewed. Prerequisites: BUS

### **BUS 101** Introduction to Business

101, ECO 111, MNG 185

3

This course includes a survey of current business practices with an examination of the topics of management, ethics, organization, finance, marketing, and human resources function. Particular attention will be paid to examining the current economic environment. Students will also learn about basic personal income, household money management and financial planning skills as well as basic economic decision-making skills. This course may also be offered in a distance education format, when available.

### **BUS 201** Project Management

3

Project Management explores the fundamental knowledge, terminology and processes of effective project management. Topics include project integration management, project scope, time and cost management, human resource management, communication, ethics, risk and procurement. Microsoft Project will be introduced.

\*Prerequisites: CPT 101, MNG 185\*

# **ECO 111** Introduction to Microeconomics

3

This course covers the basic concepts of economics. Topics include supply and demand, optimizing economic behavior, prices and wages, monetary system, interest rates, banking system, unemployment, inflation, taxes, government spending and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors.

# **ECO 211** Contemporary Issues in Macroeconomics

3

This introductory course will familiarize students with the current trends and issues surrounding the field of economics. Changes in global and national trends, with a concentration on the impact these issues have on growth and productivity of global industries, will be examined. *Prerequisites:* ECO 111, BUS 101

# **ENT 101** Entrepreneurship I

3

This course acquaints the student with a realistic approach to the problems and concerns of starting a small business. An understanding of the economic and social environment within which the small business functions will be developed. The student will be familiarized with the writing of a business plan. *Prerequisite:* BUS 101

# MNG 185 Principles of Management

3

This is an introductory study of the fundamental concepts and approaches to the management of employees and production. Traditional and current organizational methods of planning, decision making, and motivating are reviewed. Emphasis is on diversity in the workforce and ethics in the business environment. This course may also be offered in a distance education format, when available.

# MNG 284 Management and Supervision

3

This course deals with the more complex aspects of management. Students will be taught not only how to manage people but also how to manage performance, processes, and relationships. Learning to deal with stress and constant change also will be discussed. *Prerequisites:* MNG 185, LOG 192, LOG 195

# **Computers**

### Course No. Course Title

**Credits** 

### **CPT 101** Microcomputer I

3

This course provides a basic overview of microcomputer fundamentals and applications. It includes a study of word processing using Microsoft Word; spreadsheet applications using Microsoft Excel; and simple databases using Microsoft Access. The student is also exposed to basic computer operations, managing files, and a brief introduction to

PowerPoint. This course may also be offered in a distance education format, when available.

# **DAT 201** Database: Principles & Applications

3

This course is designed to introduce the student to database processing by examining basic database models and applying these models to creating and managing multi-user database systems. This course uses instructor guided project based learning to become proficient with Microsoft Access and SQL Server. *Prerequisite:* PRG 101

# **English**

### Course No. Course Title

**Credits** 

# **ENG 0100 Basic College Writing**

3

This course is designed to help the entering college student prepare for college-level writing. Word choice and mechanics are reviewed. Emphasis is placed on sentence and paragraph structure and development in writings such as article reviews and brief essays.

# **ENG 101** English Composition I

3

This course develops writing competency through the students' construction of all types of essays. Additional writing assignments include a course notebook, job resume and cover letter, sentence definitions, summaries, instructions, and technical research paper completed in Modern Language Association (MLA) style. Outlining, mechanics, syntax, and format are stressed in all writing assignments.

### **ENG 211** Communication Theory

3

Specialized communication that helps readers, viewers, and/or listeners respond to the challenges of the world of technology in which we are asked to be ethically and legally responsible is studied and practiced in this course. The class content has an impact on everyday life. The four components of the course are the following: understanding communication in the workplace; acquiring the tools/strategies needed for effective workplace communication; creating effective workplace documents; and developing, maintaining, and using effective workplace communication. Throughout the course socially situated activities, collaboration, diversity, and learning aids are integrated into the course content. *Prerequisite:* ENG 101

# **ENG 212** Public Speaking

3

Stressed in this course is the importance of oral communication for one's understanding, evaluating, explaining, and altering various occupationally related conditions. The study of the mock interview and discussions is the starting point in which students are introduced to group oral communication. The remaining course content includes theory and practice in the organization, preparation, delivery, and evaluation of extemporaneous discourse as used in interpersonal, small group, and public speaking situations. Each student delivers a minimum of six speeches (counted as test grades) per semester and is involved in class critiquing of all speeches delivered in class. *Prerequisite:* ENG 101

# Humanities

### Course No. Course Title

**Credits** 

# **HMN 101** Introduction to Humanities

3

This course creates an appreciation for cultural values and differences as portrayed in music, painting, architecture, video and literature. When possible, examples that include multiple arts are studied. Diversity is stressed in all examples. This course may also be offered in a distance education format, when available.

# **Mathematics**

# Course No. Course Title Credits

# MAT 0100 College Prep Algebra

3

This course covers arithmetic with the real number system, algebraic and polynomial expressions and their simplification, linear equations and formulas, ratio and proportion and percents.

### MAT 101 College Algebra I and Trigonometry

3

This course covers linear equations and inequalities, ratio and proportions, basic operations involving algebraic, polynomial and rational expressions, exponent rules and factoring, an introduction to geometry, including perimeter, area and volume, right triangle trigonometry and radian measure.

Prerequisite: One year of high school algebra.

### MAT 110 Trigonometry:

3

Investigates angles triangles, trigonometric functions and equations, radian and degree measurements, circular functions, graphs, identities, vectors, complex numbers, polar coordinates, parametric equations, and applications.

Prerequisite: MAT 101 or permission from the Math Dept. Chair.

### **MAT 121** Introduction to Statistics

3

This course is intended to introduce students to the basic concepts of data collection, data analysis and statistical inference. Topics include an overview of observational and experimental study designs, graphical and numerical descriptive statistics, probability distributions for simple experiments and random variables, sampling distributions, confidence intervals and hypothesis testing for the mean and proportion in the one sample case. The emphasis is on developing statistical reasoning skills and concepts. This course may also be offered in a distance education format, when available. *Prerequisite:* One year of high school algebra.

### MAT 201 College Algebra II and Trigonometry

3

This course covers systems of equations, solutions to quadratic and higher degree equations, roots and radicals, and oblique triangles. *Prerequisite:* MAT 101 or permission from the Math Dept. Chair.

### MAT 202 Pre-calculus

3

The course investigates fundamentals of plane analytical geometry, conic sections, complex numbers and polynomial, rational, exponential, logarithmic, and trigonometric functions.

Prerequisite: MAT 201 or permission from the Math Dept. Chair.

# **Physical Fitness**

### Course No. Course Title

**Credits** 

# PED 101 Physical Fitness

2

This class will consist of skills and fitness pertaining to various games and physical activities. The activities consist of volleyball, basketball, badminton, and weight training. The student will learn basic movement through exercises and fitness for better health in the future.

# Reading/Study Skills

#### Course No. Course Title

**Credits** 

# RSS 0100 College Reading/Study Skills

3

This course is designed to develop the student's fundamental reading abilities. Through extensive practice, the student learns to read efficiently and critically. Improved vocabulary and increased reading rate of speed are accomplished while the student's ability to comprehend and retain what he/she reads is developed. The study skills portion of the course allows students to develop the academic skills necessary for success in college-level work. The basic study skills of listening, note-taking, and time management are reviewed. Various study formulas and test-taking strategies are discussed and practiced by the students. A discussion of stress management and theories of memory round out the course content to aid the college student.

# Science

### Course No. Course Title

**Credits** 

### CHE 101 Chemistry I

3

This course emphasizes the fundamentals of basic chemistry. Students will be taught the concept of atoms, molecules and compounds; the

arrangement of atoms within the periodic table; balanced chemical equations; stoichiometry; the ideal gas law and solutions.

# HAP 101 Human Anatomy and Physiology I

3

This course is the first semester of a medically-oriented study of the structure and function of the human body. It is designed for students specializing in health-related and science programs. Topics include basic biochemistry; basic genetics; cells; tissues; and the integumentary, skeletal, muscular, endocrine and nervous systems. Successful completion of recent high school biology and chemistry courses is highly recommended.

# HAP 101L Human Anatomy & Physiology I Lab

1

This lab is designed to enhance and reinforce topics covered in HAP 101 lecture. Topics will include body organization, cell anatomy, histology and tissues organization, the integumentary system, the skeletal system, the muscular system, and the nervous system. In addition to the lab manual, this course will utilize McGraw Hill's Anatomy and Physiology Revealed (APR) which is a computerized system that enables students to explore the human anatomy and physiology through the use of a virtual dissection, histological review, and self-paced quizzing.

# HAP 102 Human Anatomy and Physiology II

3

This course is the second semester of a medically-oriented study of the structure and function of the human body. Topics include digestive, cardiovascular, respiratory, lymphatic, immune, urinary, reproductive systems and the inclusion of anatomical topography and transverse anatomy.

Prerequisite: HAP 101 & HAP 101 L.

### HAP 102L Human Anatomy & Physiology II Lab

1

This lab is designed to enhance and reinforce topics covered in HAP 102 lecture. Topics will include the blood and circulation, the cardiovascular system, the lymphatic system and immunity, the respiratory system, the urinary system, the reproductive system, the digestive system, and the endocrine system, as well as human development and genetics and metabolic function and nutrition. In addition to the lab manual, this course will utilize McGraw Hill's Anatomy and Physiology Revealed (APR) which is a computerized system that enables students to explore the human anatomy and physiology through the use of a virtual dissection, histological review, and self-paced quizzing.

Prerequisiste: HAP 101 & HAP 101L.

# MCH 201 Statics & Strength of Materials

3

This course is an examination of coplanar force systems, analysis of trusses, axial stress and strain, material properties, centroids, moment of inertia, stresses in beams, beam design, and torsion.

Prerequisite: MAT 101 or permission from instructor

# PHY 101 Introductory Physics

3

This course covers the fundamentals of basic physics. Students will understand the concepts of technical measurement, energy, force and vectors, equilibrium and friction, and uniform acceleration.

Prerequisite: MAT 101

# PSY 101 General Psychology

3

This course introduces terms and concepts dealing with basic psychological research methods, human and animal behavior, life-span development, states of consciousness, learning, memory, intelligence, motivation, personality structure, stress and coping, behavior disorders, social pressures and cultures. Students are encouraged to apply critical thinking strategies through their participation in various discussions of psychological theories and concepts throughout this course.

# **SOC 101** Introduction to Sociology

3

Sociology is a way to understand the world. This course is designed to introduce students to the basic principles of sociological inquiry. It includes analysis of social structures and social behavior, including culture and socialization, social institutions, race, class, gender, deviance and social change. Students will be exposed to the basic theoretical and methodological approaches of the discipline. An introduction to sociology will assist students in developing an approach that will allow them to think about and evaluate social situations and issues, thus, acquiring the sociological perspective.

### VAN 101 Small Animal Nutrition

2

VT Nutrition is an introductory small animal nutrition course for matriculating veterinary technician students. This course will identify the six basic nutrients and their functions, explain how to understand pet food labels, and explore applications of nutrition for wellness, life stages and disease management in dogs and cats. The course is conducted via an asynchronous, interactive web-based format, and includes unit self-assessment quizzes, graded exams, discussion boards and homework.

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M.S., University of Scranton B.S., Marywood University

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M.B.A., University of Scranton B.S., Pennsylvania State University

Director of Program & Institutional Research Shirley A. Helbing

M.P.A., University of Phoenix B.A., University of Scranton

# **Faculty**

# A.S. Degree

Computer Information Technology
Department Chairperson
A.E., Pennsylvania State University
Certified Cisco Network Associate (CCNA)
Microsoft Certified Systems Engineer Windows (MCSE)

Microsoft Certified Data Base Administrator SQL 7.0 (MCDBA)

Physical Therapist Assistant Department Chairperson Melissa Cencetti, PT, DPT DPT & MS, Arcadia University BS, King's College

Pediatric Specialty Certificate, Misericordia University Certificate in Advance Graduate Study in Health Professions

Physical Therapist Assistant Acad. Coordinator of Clinical Ed.

Nicole Fabricatore, PTA B.S., Grand Canyon University A.S., Keystone College

Radiologic Technology Program Director / Chair Faculty Leader Joan M. Bonczek R.T. (R)
M.S., Marywood University
B.S., Misericordia University
A.A.S., Misericordia University
American Registry of Radiologic Technologists

Radiologic Technology Clinical Coordinator

Barbara Byrne, B.S.R.T. (R) (MR)
B.S., Misericordia University
American Registry of Radiologic Technologists

Radiologic Technology Clinical Instructor Roxanne M. Caswell, R.T. (R) (M)
B.S., Misericordia University
A.A.S., Broome Community College
American Registry of Radiologic Technologists

Veterinary Technology Department Chairperson Rosemary M. Cook, CVT, Ph.D Ph.D., State University of New York, Buffalo B.S., Medaille College A.S., Medaille College

Veterinarian / Instructor

**TBD** 

**Veterinary Instructor** 

Kimberly Konopka, CVT
B.S., Wilkes University
A.S., Johnson College
Allene Taylor, CVT
A.S., Johnson College

**Veterinary Instructor** 

# A.A.S. Degree

Architectural Drafting & Design Technology

**John F. DeAngelis** B.S., Temple University

Department Chairperson

A.S., Pennsylvania State University
NICET Certified Engineering Technician
(National Institute of Certified Engineering Technicians)
Associate Member American Institute of Architects
Certified Member of the ADDA International

Automotive Technology Instructor Mark Kozemko

A.S.T., Johnson College ASE Cert. Master Auto. Tech.

**Biomedical Equipment Technology** 

Douglas D. Hampton

Department Chairperson Sustainability Coordinator

A.S., Community College of the Finger Lakes A.A.S., Auburn Community College

Carpentry & Cabinetmaking Technology Instructor

Todd Campbell

A.S.T., Johnson College Licensed General Contractor

**Director of the Office of Innovation and Industry** 

Michael K. Novak

Diesel Truck Technology Department Chairperson A.S.T., Williamsport Area Comm. College Certified Forklift Operator Safety Trainer

Certified OSHA 1910 General Industry Outreach Trainer Certified Original Equipment Manufacturers (OEM) Technician Certified Penn DOT Vehicle Safety Inspection Mechanic Instructor

**Diesel Instructor** 

Gerard Barone

A.A.S., Johnson College Waterous Pump Service & Repair Cert. Hale Fire Pump Service & Repair Cert. PA State Certified Vehicle Inspector Electrical Construction & Maintenance Technology Instructor Frank Mickavicz A.A.S., Johnson College

Director of Innovation Electronic Technology Department Chairperson

Richard P. Fornes
B.S. State University of New York, Binghamton
A.S., Broome Community College
A.S.T., Johnson College

**Heating Ventilation & Air-Conditioning Technology Instructor**A.A.S., Technical Career Institute

EPA Approved Universal Technician

**Business Management Department Chairperson** 

Laura Little M.B.A, Cameron University B.A., Binghamton University

Certificate

**Welding Instructor** 

**Anthony Delucca** 

Certificate, Welder Training and Testing Institute
Motorcycle Fabrication Certificate
AWS D1.1 Certified Welder

### Faculty General Education

English, Reading & Study Skills Department Chairperson Director of Student Support Services

George J. Hallesky, Ed.D. Ed.D., Temple University M.S., Marywood University B.A., St. Bonaventure University A.A., Keystone College

**English Instructor Coordinator of Adjuncts** 

Heather Bonker
M.A., College of Charleston
B.A., Saint Vincent College
Post-Masters Certificate in Education, Capella University

Librarian / Resource Specialist

Ronald Krysiewski M.S., Drexel University M.A., University of Scranton B.A., Wilkes University **Mathematics Department Chairperson** 

Richard R. Mishura

M.S., Marywood University B.S., Florida Institute of Technology A.A., Keystone College

Institutional Research Analyst Mathematics Instructor

Barbara Ann Senapedis, Ph.D. Ph.D., Pennsylvania State University M.S., Marywood University B.S., Bloomsburg University

**Technical Generalist** 

Matthew P. Sleboda

A.S.T., Johnson College

Certified American Welding Society (AWS) Inspector

Staff

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**Admissions Representative** 

Lauren Godowski

B.S. Pennsylvania State University

**Admissions Representative** 

**Stephanie Greaney** B.S., Wilson College

Administrative Assistant Academic Affairs & Faculty Felicia Ennes

B.A., Marywood University

Administrative Assistant College Advancement

**Jessie Powers** 

B.A., The City College of New York

**Administrative Coordinator** 

**Brittany Stratton** 

for the Office of Innovation and Industry

B.A., Millersville University

Administrative Coordinator to the Health Science Division

Diane M. Dolinsky

**Advancement Specialist** 

Sean Ann Kelly

B.A., East Stroudsburg University

Assistant to the President & Julia Evans
Secretary to the Board M.B.A., Misericordia University
B.S., Misericordia University

Assistant Director of Student
Support Services / Counselor

M.B.A., Wilkes University
M.S.W., Marywood University
B.A., Wilkes University

Bursar Theodocia Zayac
M.B.A., University of Scranton
B.S., University of Scranton

Coordinator of Student Success for<br/>Enrollment ServicesAngela Semkew<br/>M.S., Slippery Rock University<br/>B.S., Slippery Rock University

Director of Career Services

Roseann Martinetti
M.A., Marywood University
B.A., Marywood University

Director of College Relations

Janine Tomaszewski

B.A., Pennsylvania State University

**Director of Development**Denise Nazarenko
B.S., University of Scranton

Director of Enrollment

M. Ed., Marywood University
B.A., Pennsylvania State University

Director of ERP Data Administration

Susan E. Phillips

M.B.A., University of Scranton

B.S., Boston College

**Director of Finance**Liz Renda
B.S., University of Scranton

Director of Financial Aid

Robin Walker

B.A., Keystone College

A.S., Pennsylvania State University

Director of Network & Systems Administration

Wil Esbrandt, Jr. B.S., Keystone College Microsoft Certified Professional CompTIA A+ Cert.

**Director of Student Life** 

Sarah Williams M. Ed., Mansfield University B.S., Mansfield University

**Facilities Manager** 

William F. Kelly

**Financial Aid Advisor** 

**Jessica Farrell** B.S., Keystone College

**Human Resources Generalist** 

**TBA** 

Loan Coordinator for Financial Aid

**Diana Cassel** B.A., Misericordia University

**Manager of Student Success for** 

Karen Pigga-Capulish

Academic Affairs

B.S., Marywood University

**Planning Manager** 

**Joseph Musheno** B.S., Temple University A.S.T., Johnson College

Registrar

Joshua Hawkins

M.S., Stony Brook University B.S., Farmingdale State College

**Residence / Student Life Coordinator** 

Shannon Cavanaugh

B.S., Indiana University of Pennsylvania

**Senior Director of Faculty** 

Andrew V. Zwanch

B.S., State University of New York, Oswego A.S.T., Johnson College

Senior Director of Student Assessment and Support Services

Dominick A. Carachilo

M.Ed., Temple University B.S., Lock Haven University A.S.T., Johnson College Senior Director of Student Engagement Melissa A. Ide

M.A., Mansfield University B.A., Pennsylvania State University

Staff Accountant Kristin Alfieri

M.B.A., University of Scranton B.S., University of Scranton

Staff Accountant Brittany Corrigan

B.S., Marywood University

Student Life CoordinatorDonald StacknickAthletics and RecreationB.S., Keystone College

Student Support Services Coordinator Lynn M. Krushinski

Technology Support Specialist Patrick Appel

A.S., Johnson College