Institute of Technology
West Virginia University

LEONARD C. NELSON
COLLEGE OF ENGINEERING & SCIENCES

MECHANICAL ENGINEERING
STUDENT HANDBOOK

West Virginia University
Institute of Technology
Montgomery, West Virginia
2016

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Chair's Message

Welcome to the Mechanical Engineering Department of the West Virginia University Institute of Technology. Let me take this opportunity to congratulate you on your acceptance to WVU Tech. You are following the footsteps of generations of high school graduates who chose to study mechanical engineering at Tech and eventually became successful Mechanical Engineers. Tech graduates are known in industrial and governmental organizations as intelligent, hardworking and well-trained professionals. We are proud of the achievements of our graduates and are sure you will do your best to continue the tradition.

We know you come to Tech with a strong desire to succeed and a willingness to work hard to achieve your goals. We are fully aware of the sacrifice you and your family are expected to make so that you can become an Engineer. At Tech you will find the staff and faculty who are eager to help you at every stage of your education. Although not all engineering subjects are easy for everyone, you will find help available everywhere on the campus just for the asking. Starting with the Counselor in the Admissions Office, all the way to your instructors in the senior elective courses, your interests are foremost in our minds. We will help you plan your courses, check to make sure you are in the right course at the right time and provide you with a student friendly environment that is highly conducive to study.

I look forward to meeting each and every one of you and getting to know you personally. My office is always open to you and you are encouraged to come and see me anytime you have a problem. Also, remember your instructors are available and eager to help. I urge you to take every opportunity to make full use of all the facilities available to you on this campus. Good luck.

Dr. Bernhard Bettig, Acting Chair
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NOTE: The material in this handbook was collected over several years by Dr. Govind Puttaiah with the cooperation and support of the Mechanical Engineering faculty and the Administration of WVU Tech.

1.0 INTRODUCTION

1.1 Mechanical Engineering Profession

Mechanical Engineering is one of the largest technical professions with a history of significant and continuous contributions to industrial development since the dawn of human civilization. The History of Technology is replete with stories of successful applications of mechanical engineering ideas and concepts which have lead to increased prosperity of nations and eventual rise in the overall living standards of their citizens. Mechanical engineers also play a vital role in maintaining the technology leadership to insure the survival and growth of industrialized societies. In order to prepare our students for the challenges awaiting them in the real world, the Mechanical Engineering Department at WVU Tech offers a practice-oriented education with strong emphasis on hands-on experience at all levels of its Bachelor of Science curriculum. The curriculum is structured to develop the skills necessary to succeed in a field that is both challenging and rewarding. The program includes sequential courses in several areas, such as English, Mathematics, Physics, Humanities, Computer Science and General Engineering Science as well as the foundation courses in mechanical engineering such as Thermodynamics, Machine Design, Heat Transfer, Mechanical Vibrations, Control Systems and Materials Science. These are considered essential for a sound mechanical engineering program by the Accreditation Board for Engineering and Technology (ABET), the national organization that accredits engineering programs in the United States. Technical electives are offered in the two stems: energy and mechanical systems, enabling students to pursue advanced studies in their areas of interest. Engineers, in general, are builders and therefore need to develop strong analytical and design skills. The Mechanical Engineering curriculum at WVU Tech is structured so that meaningful design experience is included in several of the required and elective courses. ME students develop these skills systematically by successfully completing a series of sequential courses such as Statics, Dynamics, Mechanics of Materials, Dynamics of Machinery, Machine Design and ME Systems Design I and II. Open-ended problems and multiple-solution design concepts are incorporated across the curriculum involving design assignments in thermal and mechanical systems. This process starts with the course: Mechanics of Materials in the sophomore year and culminates with the capstone design courses (ME Systems Design I and II) at the end of the senior year. The capstone design courses provide the students with an opportunity to apply previously acquired knowledge in areas that include mathematics, science, engineering, humanities, communications, ethics, and economics. The Mechanical Engineering faculty also recognize the dynamic nature of modern technology in which changes are inevitable and the need for our graduates to be well-prepared to meet these challenges. The Mechanical Engineering curriculum is under constant review and modifications in the curriculum are introduced continuously in response to the changing needs of the industry and the job market.

1.2 Program Mission

The mission of the Mechanical Engineering (ME) Department at Tech is to produce top quality mechanical engineers with the best possible education and training that would enable them to become competent members of the profession able to handle the most challenging jobs. The ME department will strive to fulfill this mission by maintaining high academic quality of its curriculum and continued ABET accreditation.

1.3 Departmental Goals

In order to succeed in the mission stated above, the ME faculty are committed to the following goals:

1. Provide an atmosphere of dedicated teaching and support services to the students with the best possible classroom instructions, counseling, academic planning, career guidance and personal attention to facilitate growth and success in academic and professional work.
2. Provide quality learning tools and academic environment that would produce technically competent mechanical engineers who are able to meet the needs of employers from government, industry and business.
3. Encourage and nurture students' interest in engineering as a profession.
4. Help students develop self-motivation, good work habits, personal discipline and skills needed to be a professionally successful member of the society.

1.4 Program Educational Objectives

Consistent with the mission and the goals stated above and with input from the constituents of the ME program, the following Educational Objectives have been adopted by the faculty of the ME department.

Graduates of the WVU Tech Mechanical Engineering program:

1. are successful in the practice of mechanical engineering
2. can advance to positions of technical and/or managerial leadership
3. are successful in graduate studies, if they choose to pursue advanced education
4. are able to obtain professional registration, if they choose to, after appropriate professional experience.
5. are dedicated to life-long learning in their professional career

1.5 Student Outcomes

Consistent with the mission of WVU Tech and in compliance with the ABET criteria, the Mechanical Engineering program at WVU Tech emphasizes the development of a well-rounded engineer with a strong background in mathematics, sciences, engineering analysis and design. Graduates of this program will be able to practice engineering as professionals or pursue graduate education and advanced studies. Upon graduation, they will be able to demonstrate:

1. knowledge of mathematics, sciences and fundamentals of engineering necessary for a successful career in engineering practice
2. the ability to identify, formulate, analyze problems and develop solutions based on standard engineering norms and practices
3. the ability to apply their analytical skills and creativity to investigate the adequacy of a design and to make design improvements where necessary
4. the ability to conduct mechanical measurements; collect, evaluate and present experimental results; design and build experiments to investigate engineering phenomena including the analysis and interpretation of data
5. knowledge of and the ability to use the computer, standard software and computing tools appropriate to their work

6. knowledge of safety practices in experimental work
7. knowledge of environmental requirements and constraints on engineering practice
8. knowledge and ability to design a mechanical system, component, or process to meet desired needs
9. the ability to function as a productive member of multi-disciplinary teams
10. knowledge of professional and ethical codes of conduct and responsibilities
11. the ability to effectively communicate in oral and written forms
12. knowledge of the impact of engineering solutions in a global and Societal context as a result of having a broad education
13. the ability to recognize the need for and engage in life-long learning
14. the ability to demonstrate knowledge of contemporary issues
15. the ability to work professionally in thermal and mechanical systems areas including the design and realization of such systems.

The above list is expanded to include (for the sake of clarity and completeness) four more items than the eleven Student Outcomes [(a) through (k)] mandated by the ABET:

(a) an ability to apply knowledge of mathematics, science, and engineering
(b) an ability to design and conduct experiments, as well as to analyze and interpret data
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
(d) an ability to function on multidisciplinary teams
(e) an ability to identify, formulate, and solve engineering problems
(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
(i) a recognition of the need for, and an ability to engage in life-long learning
(j) a knowledge of contemporary issues
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

1.6 Assessment

The Mechanical Engineering program has an assessment process in place which includes: students' class work, homework, tests, assignments, and reports and portfolios of design projects; course evaluations by students; results of FE (Fundamentals of Engineering) examination; exit surveys of graduating seniors; alumni surveys; employer surveys; advisory board surveys, and placement data of graduates. The results are discussed in the faculty meetings and evaluated by the ME faculty to update the curriculum and to make the changes found necessary to enhance the quality of the program. This process 'closes the loop,' thus insuring continuous improvement of the program.

2.0 MECHANICAL ENGINEERING at WVU Tech

In order to prepare our students for the challenges that await them in the real world, the Mechanical Engineering Department at WVU Tech offers a practice oriented education with strong emphasis on hands-on experience at all levels of the Bachelor of Science curriculum. The curriculum is structured to develop the skills necessary to succeed in the field that is both challenging and rewarding. The Mechanical Engineering faculty understands also the dynamic nature of modern technology wherein changes and growth are inevitable and recognize the need for preparing students to meet these challenges. The ME program is, therefore, under constant review and curriculum modifications are introduced in response to the changing needs of employers who hire our graduates.

2.1 Mission Statement

The primary goal of the ME department at Tech is to provide the highest possible quality baccalaureate mechanical engineering education accredited by the Accreditation Board for Engineering and Technology (ABET). The ABET criteria state, among other requirements, that a qualified mechanical engineer should have a strong background in basic sciences, mathematics, computer applications and laboratory experience in addition to fundamentals of mechanical engineering. A broad range of ME elective courses are also mandated to introduce the students to various fields of specialization which will eventually lead them to well-paying job opportunities.

To be a successful professional, a mechanical engineer needs to possess certain personal traits and proficiency in several areas of science and technology. The Section below describes the methodology the department has adopted to achieve this mission.

2.2 Specific Tasks to Achieve the Mission

- Recruiting high quality faculty dedicated to undergraduate education and providing them with the necessary facilities, equipment and support to enable them to achieve their highest potential as teachers.

- Improving the quality of the curriculum by a continuous process of review and updating.

- Building and maintaining high quality laboratory facilities.

- Encouraging a high degree of personal interaction between the students and the faculty.

- Providing individualized advising and personal guidance to students with regard to their academic and career goals.

- Providing strong support to outside student activities such as the Buggy Club, Formula Car, ASME, SAE and Pi Tau Sigma.

- Providing strong support for the faculty in their research activities, consulting and participation in seminars, short courses, workshops as vehicles for faculty development.

- Providing a pleasant and supportive environment in the department that is conducive to teaching and learning.

- Encouraging and assisting students to use appropriate computer hardware and software in their coursework and projects.

- Encouraging students to develop interest in and appreciation of life-long learning.

2.3 Long Term Goals

Growth of enrollment is the most important long term program goal at this time. In order to achieve this goal, the department has been aggressively recruiting freshmen from local high schools and transfer students from institutions that have articulation agreements with Tech. A 2+2 cooperative arrangement is in place between the WVU Mechanical & Aerospace Engineering department at Morgantown and the WVU Tech Mechanical Engineering department at Montgomery. Under this arrangement, a student who wishes to work for a degree in Aerospace Engineering at WVU Morgantown, may begin his/her college education in the Mechanical Engineering Department at Montgomery, complete two years of the four-year BSAE curriculum and then transfer to Morgantown and complete the reminder of the requirements for a BSAE degree at WVU Morgantown. Since its initiation in 1999-2000, several students have completed this program. Program details, including a pattern sheet, may be found in the Appendix I.

3.0 ADMISSION TO MECHANCIAL ENGINEERING PROGRAM

A brief description of the admission requirements of the Leonard C. Nelson College of Engineering & Sciences (LCN College), in general, and the Mechanical Engineering program in particular, is given below. Refer to the institutional catalog for the current policies. Complete details of admission requirements of the programs in the College of Business, Humanities and Social Sciences (BHSS) and the LCN College may be found in Appendix I and also in the LCN College Catalog. Students will be considered for admission on a space available basis if they meet the following criteria.

3.1 General Requirements for Admission of High School Graduates:

Graduation from an accredited high school with successful completion of:

a. 4 units of English (including grammar, composition, and literature)
b. 3 units of Social Studies (including US history)
c. 4 units of college preparatory mathematics (three units must be algebra I and II and plane geometry)
c. 1 unit of Art
d. 2 units of the same foreign language
e. 3 units of science (all must include laboratory component)

3.2 Leonard C. Nelson College of Engineering & Sciences

In addition to the general requirement for admission listed above, an applicant must also obtain an ACT math score of 19 (or SAT math score of 460) to be admitted as an engineering major to any program in the LCN College. Ordinarily the Admissions Office reviews and certifies that new students meet these requirements. See Appendix (page 40) for additional information.

Normally the department chair will be the academic advisor during the freshman year to assist the student with the selection and registration of courses. Beginning with the sophomore year, the student gets a permanent academic advisor per departmental policies. For example: in the M E department, students are assigned advisors based on the student's last name. Consult the list displayed outside the departmental office or the Department Chair to find out your permanent academic advisor.

3.2.1 Admission to Specific Academic Programs

Admission to the College does not necessarily admit a student to all programs. Prerequisites are required for admission to the following programs.

3.2.2 PRE-ENGINEERING: Students who wish to pursue a degree in engineering, but do not meet the criteria of Sec 3.2 [i.e. ACT(M) lower than 19 or SAT(M) lower than 460] may be admitted to the pre-engineering program for one year. At the end of the first year they become eligible to transfer to the Mechanical (or another) Engineering program, if they maintain a 2.00 GPA and have completed 30 credit hours of college courses which must include MATH 126: *College Algebra* and MATH 128: *Trigonometry*, with a C or better grade. Pre-engineering students normally have the Freshman Student Advisor as their academic advisor.

3.2.3 ENGINEERING TECHNOLOLGY: The Engineering Technology programs are open admission programs. In order to get admission to an engineering technology program, the applicant should have taken, in high school, at least one unit of Algebra, one unit of Plane Geometry and one-half unit of Trigonometry. Prospective students are evaluated to determine the appropriate Math and English entry levels. Students who lack sufficient background in these topics will be given an opportunity to enroll in pre-technology mathematics and English courses so that they can handle the prescribed college-level courses,

3.3 Admission of Transfer Student--including other majors at WVU Tech

Transfer students will be considered by the LCN College on a space available basis if they meet the following criteria:

a. have a minimum grade point average of 2.00 overall and in professional courses (math, physics, chemistry and engineering)
b. have completed MATH 126: *College Algebra* and MATH 128: *Trigonometry* or equivalent with a grade of C or better.

Transfer students with more than 30 semester hours of college work are evaluated based on previous college work. Applicants with less than 30 hours can be admitted under Sec 3.1, if qualified. See Appendix I for detailed information on transfer of credits for courses taken at other institutions.

3.4 Evaluation of Transfer Credits

All credits, grades and quality points will be entered in the permanent record card of transfer students. Subject to 'C' requirements in some mathematics and mechanics courses (see the program course descriptions in the Appendix I). 'D' grades will be accepted from all accredited four year and community colleges that have transfer/articulation agreements with WVU Tech. See Appendix I for a list of Institutions that have 'articulation' agreements with Tech. Students transferring from non-accredited colleges will receive credit only for those courses in which a grade of C or higher has been earned. In sequence courses, however, a D grade may be accepted if followed by a grade of C or higher. Up to seventy-two semester hours of college-parallel courses will be accepted from accredited junior or community colleges or those under the West Virginia system of higher education. If the college is not regionally accredited but has approved status, only 64 hours will be accepted.

The transfer student must fulfill the graduation requirements of the college, including 40 hours of 300-400 level courses. Credits earned at a junior or community college may not be used to satisfy this requirement even though transfer credits are evaluated as comparable to 300 and 400 level courses at WVU Tech. Students with less than 30 transfer credits must take orientation. See Section 7, below for more information on Transfer Students.

Ordinarily, evaluation of transfer credits will be initiated by the Chair and with final approval by the Registrar. However, in some cases the Admissions Counselor or the Associate Provost may complete the transfer of credits, a copy of which will be sent to the department Chair.

3.5 Advanced Placement Test (AP)

Students who take Advanced Placement (AP) tests in high school and score 3 or above may, with the approval of the respective department chairs, receive credits/waivers for courses such as English, Chemistry, Calculus, Physics, History etc. Contact your department Chair before the registration with a copy of the score card to make arrangements for the waiver.

3.6 ACCESS (Attaining College Credits and Experience while in Secondary School)

High school juniors and seniors may earn credit hours toward a degree at this college prior to high school graduation. Students selected for ACCESS may enroll for any freshman level class upon approval of the Registrar. Juniors may enroll during the summer session. Seniors may enroll during the regular school year, but their classes will be limited to those that do not interfere with regularly scheduled high school subjects. Tuition and fees will be the same as those for regular college students.

3.7 Advanced Admission of High School Seniors

High school students who wish to spend their senior year at WVU Tech may apply for advanced admission as a full-time student. Students enrolled under this program will receive grades and quality points as earned. Transcripts will be forwarded to any other college upon request of the student; however, the acceptance of these credits toward a degree will be determined by the individual college. Cost of tuition and fees will be the same as those for all other full-time students.

3.8 Other Opportunities

College credit may be obtained by students while attending high school through three options:

Dual-credit courses
Articulation agreements
Tech-Prep EDGE courses.

Agreements are in place with high schools throughout the region. For more information, contact your high school counselor or Tech's Office of Admissions.

3.9 Admission of International Students

International students applying for admission to the LCN College should visit the WVU Tech web page for international students at international.wvutech.edu, where detailed information can be found on the application process and related items. In general applicants should have completed the equivalent of a secondary education with higher than average grades. It is highly recommended that they take the ACT or SAT and have the scores sent to WVU Tech. For all students with a native language other than English, the "Test of English as a Foreign Language-TOEFL" is also recommended. A score of 500 or above on the paper-based TOEFL, 173 on the computer-based TOEFL, or 61 on the internet-based TOEFL is usually considered adequate for admission. Because WVU Tech offers no elementary studies in English as a foreign language, only students with the above-listed English proficiency in TOEFL are admitted.

3.10 Auditing Courses

Any student wishing to audit a class must notify the Registrar of that intention during regular or late registration. Auditors take no examinations and receive no grades or credits for courses audited. A student may not request credit by examination for an audited course.

3.11 The Special Student

An individual who wishes to take courses, but not for a degree or certificate, is classified as a special student and may register for part-time studies, taking fewer than 12 hours of course credit in any semester. A special student who attempts equal to or more than 12 credit hours must apply for admission as a degree candidate by filing full credentials with the Office of Admissions. An overall grade point average of 2.00 or higher is required for admission. The special student may also enroll as an auditor.

3.12 The Transient Student

A student wishing to take courses to be transferred from/to another college may do so, but must present, at registration, an official transient student permit from the college accepting the course credit. This permit must include the number of semester hours which the student is permitted to complete. A WVU Tech student who wishes to enroll at another college as a transient student must have prior approval of the appropriate advisor, dean, and the Registrar. The required form (called the Transient Form) is available with the chairs and in the Office of the Registrar and Records.

3.13 The Veteran Student

WVU Tech is approved by the WV Higher Education Policy Commission's State Approving Agency for enrollment of veterans and dependents of deceased or 100% disabled veterans eligible for education benefits under current regulations. Those serving in the Army or Air National Guard or those on Active Duty or serving in a Reserve Unit may also qualify for educational assistance. Tech's Veterans Affairs Office serves as the official institutional contact point for military and veterans' programs and services. Any changes in approved course schedules including adding, dropping, and withdrawing from a course or courses and changes of academic program major MUST receive prior approval from the Veterans Affairs Office at Tech. Students receiving educational benefits are expected to make satisfactory progress in attaining their educational goals.

3.14 Counseling Services

The Counseling Office addresses student needs through personal counseling, academic counseling (for students experiencing difficulty in meeting the demands of college life,) career counseling, career testing. In addition, Educational Outreach Programs are also available to assist in preventing any problems that may interfere with personal growth and development, such as for instance: alcohol abuse, substance abuse, eating disorders, stress, relationship issues, sexual assault/abuse, date rape, poor time management skills, etc.

Individual and group counseling sessions are available through the Counseling Office. Students receive assistance in addressing their issues and/or concerns. Workshops are offered regularly on topics such as Stress Management, Time Management, Study Skills, Assertiveness Skills, Healthy Relationships, Clear Communication Techniques, and Conflict Resolution. Diagnostic and career testing are also available. Various support groups are available including Alcoholics Anonymous, Narcotics Anonymous, and Eating Disorders. Although students are encouraged to deal with any concern before it reaches a crisis stage, the counseling staff is trained in crisis intervention. For additional information and guidance contact the Dean of Students at 304-442-3158.

3.15 Student Success Center

Opened in April 2013, the Student Success Center (SSC), is a powerful tool in every WVU Tech student's academic success toolbox. The SSC provided academic advising for first-year students and free peer tutoring and skill building workshops for all WVU Tech students. The SSC also plans and executes new student orientation, a multi-day program designed to assist new students to transition smoothly to the WVU Tech community. Among the most popular destination on campus, the SSC proudly hosted more than 12,000 student visits during the first year of operation. The SSC is dedicated to providing programs and advice to students from orientation to graduation.

4.0 PROGRESS IN THE CURRICULUM

Any course that is failed must be repeated and passed to fulfill the prerequisite requirements, before the student can progress in the curriculum. Students must maintain at least a 2.00/4.00 GPA, cumulatively, to remain on good standing. Probation and suspension policies and the graduation requirements are described in the WVU Tech catalog.

5.0 MECHANICAL ENGINEERING FACULTY

The Mechanical Engineering department currently has equivalent of five full-time faculty and no part-time or adjunct faculty. All faculty members have earned doctorate degrees from renowned universities and they are encouraged to become Registered Professional Engineers. Currently two faculty members are registered professional engineers (PE's) and three others are on track to become P.E.'s. They have long experience in teaching a variety of courses in the areas of Thermal Sciences and Mechanical Systems. All Mechanical Engineering courses are taught by the professors, and in contrast to some large universities, student-assistants do not teach any course in the department which helps to maintain high quality of the program at Tech. See Appendix I for additional information on the ME faculty.

6.0 ADVISING AND MONITORING OF STUDENTS

6.1 Academic Advising

Upon initial registration in the program, every mechanical engineering student is assigned an advisor based on student's last name. The Chair is available in the month of June to advise and register incoming freshmen who wish to register early. All transfer students are also advised by the Chair the first time they register at Tech, and then an advisor is assigned based on the last name. A list on display outside the department office shows the advisor assignments. Students usually keep the same advisor for the duration of their studies. The ME faculty are involved in all phases of academic advising: they must approve and sign student's schedule of classes, changes in schedule, course withdrawal forms, and waiver and substitution slips**.** The advisor also guides the student in choosing appropriate courses to insure satisfaction of prerequisites; helps the student with selection of the General Education Foundations (GEF) courses to fulfill GEF's rigid requirements and offers suggestions on the academic load to insure satisfactory progress through the curriculum. Seniors must complete two graduation checks: one each during their final two semesters prior to graduation. The student should complete a "Graduation Check" form (available in the Chair's office), have it signed by his/her advisor and give it the department secretary who will forward it to the Registrar. The Chair performs the first graduation check to insure graduation requirements are being met. The student will be informed of any existing or developing deficiencies and offered remedies. Every graduating student must meet with the Registrar for the final graduation check prior to graduation. Two back-to-back graduation checks help identify problems which may be rectified, if necessary, during the last semester.

6.2 Student Files

The Department maintains academic files of all students that contain the pattern sheets (outlining the program of study), high school transcripts, ACT/SAT scores, acceptance letters, waiver forms (if any), copies of all grades to date and, for transfer students, approved transfer credits. At the end of each semester, the department secretary updates the files by recording the grades, semester and the year on the pattern sheets. This procedure enables the advisor to keep track of student's progress at all times and is very helpful in monitoring the progress of the student continuously.

6.3 Advising Material

See Appendix I for additional helpful information related to advising, such as the Patterns Sheets, Flow Chart, list of Technical Electives in the Thermal and Mechanical Systems areas.

6.4 Faculty Office Hours

In order to provide sufficient opportunities for the students to meet with their advisors regularly, the LCN College mandates that the engineering faculty maintain a minimum of ten hours of posted office hours per week. In compliance with this policy the ME faculty have posted office hours. During these meetings, students may seek help with their class work, plan their course work, discuss their academic progress and technical topics of interest. For the ME faculty and staff, "**STUDENTS ARE FIRST"** always and they welcome the opportunity to interact with students.

6.5 Math Help Center

When you begin your education in engineering, mathematics is likely to be one of the most difficult subjects. We have a saying in the College: "*if you successfully complete Calculus II you will eventually graduate with an engineering degree*". Research shows that a vast majority of students who drop out of engineering do so due to difficulties with their math courses such as Calculus I and Calculus II. Therefore you need to pay special attention to math courses, particularly during your freshmen year. In order to minimize this problem, Mathematics faculty operates a "Math Help Center", Monday through Friday in Room # 107, Engineering Lab Building. A math professor is available during the posted hours (which are announced at the beginning of the semester) to help individual students with their math problems. You are encouraged to make full use of this unique facility.

7.0 TRANSFER STUDENTS

7.1 Transfer From Other Tech Majors

Students may transfer to Mechanical Engineering from other majors at Tech if they satisfy the admission requirements of the LCN COE College. See Catalog for details. They are allowed to transfer courses that are common to or apply directly to the Mechanical Engineering curriculum. Special care should be exercised with students transferring from Engineering Technology programs, where they may have taken courses with similar titles. The Chair will evaluate each technology transfer student on an individual basis to insure that the candidate meets the prerequisites especially with regard to calculus requirements.

7.2 Transfer From Other Institutions

Policies governing the transfers from other institutions to the College of Engineering & Sciences are outlined in Sec 3.3 above and in the College Catalog.

Transfer conditions are dependent on whether or not WVU Tech has an articulation agreement with the other institution. Tech has formal transfer agreements with several institutions of higher education (see Appendix I). Students transferring from these institutions may transfer applicable courses with a passing grade. Also see Appendix I for course equivalencies between some of these institutions and WVU Tech. Students transferring from other US institutions are evaluated on a case-by-case basis to insure the quality and pre-requisite equivalency to the courses at WVU Tech. In such cases credits are ordinarily transferred for courses which the student has successfully completed with "C" or better grades. For students transferring from foreign universities, the Chair handles the transfers on a case-by-case basis using the same criteria as applicable to other US colleges. International students with education in non-English medium of instruction need to provide English translations of their records, preferably through an agency such as "World Education Services" (WES^{R}).

7.3 Supporting Material for Transfer

The College requires that students transferring from a school without an articulation agreement must supply official transcripts and a school catalog with course descriptions and credit hours listed in detail. For students transferring from a program that is not accredited by ABET, the College requires official transcripts, school catalog, and detailed syllabi of all courses to be considered for evaluation. Each syllabus must include detailed topical outline; prerequisites and co-requisites; days and times of the lectures; days and times of the laboratories; the author and title of textbook(s) used for the course. It would be helpful if the syllabus included a list of learning outcomes for the course. Samples of student work may also be requested. Due to the ABET requirement for assessing learning outcomes, transfer students must spend enough time at WVU Tech so that their learning outcomes can be measured and validated. In order to meet this condition, Tech requires that all transfer students in engineering must take at least 24 credit hours of upper division (300+) engineering courses in residence at WVU Tech, and these must include the capstone design course(s), (usually 6 credit hours) often listed as "Senior Design", "System Design" or "Senior Projects".

7.4 Evaluation of Transfer Students

WVU Tech accepts transfer students freely from articulation institutions and with some restrictions from others. A set of written policies (see Appendix I) govern the admission and evaluation of transfer students. Upon admission, transfer of credits may be completed by the Freshman Advisor, the Registrar and/or the Chair, depending on the courses completed by the student and the declared major. The Registrar's office may initially evaluate transfer courses listing them as either transferable or nontransferable to Tech. The Chair then evaluates each transferable course in relation to the ME curriculum requirements and generates an "Evaluation of Credits" sheet that indicates the transferred courses and their Tech equivalents. Any credit-hour shortages must be balanced by additional credit hours in other courses to reach 125 credit hour (ME) requirement (effective 2016-2017) for graduation. All transfer credits are officially documented with the original sent to the Registrar and a copy to the student's folder.

7.4.1 Guidelines for Evaluation of Transfer Credits

In evaluating the courses to be transferred, the following guidelines will be followed:

- Transfer students must supply official transcripts to initiate the transfer process.
- The Department will not equate a WVU Tech course to one with fewer credit hours unless there is firm documentation that this substitution is warranted.
- The Department will not equate a WVU Tech course that has a lab component to a course that does not have a lab component unless course content equivalency can be established.
- The Department will not substitute technology courses for engineering courses except at the discretion of the Chair and with the final approval of the Dean of Engineering and Sciences.
- If adequate documentation for a course cannot be supplied, the transfer student may be asked to take an examination ("credit by exam") to be exempt from taking the Tech course. The department that offers the course in question has the discretion not to give such an examination.
- In some cases, the transfer of a course may be conditioned upon successfully completing another course(s); these conditions being determined on a case-by-case basis.
- In general, lower division courses will not be equated to upper division courses. In some cases, the level of the course may be determined by course content and prerequisites rather than by course number. For example, if a math course has a 300 number, but its prerequisites do not include calculus, then it will not be equated to a similarly-named, WVU Tech 300-level math course that does require calculus.
- The College will only accept calculus-based Physics courses for its engineering programs.

Transfer students may appeal the evaluation of courses by supplying further documentation within the first semester of studies at WVU Tech.

8.0 CO-OPERATIVE EDUCATION AND INTERSHIP PROGRAM

The Co-op program at WVU Tech is considered by many past graduates as one of the best features of engineering education at this institution. Until recently, Tech was the only institution of higher education in West Virginia to offer a Co-op education. Although no academic credit is currently given to Co-op work, its value cannot be underestimated. Some important benefits of the Co-op program are: opportunity to "test drive" your interest in mechanical engineering, financial independence and personal growth, on-the-job training and industrial experience, net-working with potential employers and improved job prospects/opportunities. Everyone in the Mechanical Engineering program is strongly urged to consider Co-op at Tech. You may contact the M E Chair or the Co-op director ASAP to find out more about this unique program.

The Co-op program requires a commitment from the student for a minimum of three work periods (semesters). Internships provide the same valuable paid work experience, but are arranged with the employer for only one or two work periods. See Appendix I for additional information on the Co-op program.

9.0 STUDENT ORGANIZATIONS

At present, the following Mechanical Engineering student organizations are active on campus: Student sections of ASME and SAE; Mini Baja Club, SPACE (Student Partnership for the Advancement of Cosmic Exploration-sponsored by NASA) Club and Pi Tau Sigma. The M E Department takes pride in supporting these organizations. They provide opportunities for enhancing the classroom learning with outside activities such as building projects, interdisciplinary group projects, participation in national competitions etc. Everyone is welcome to join these organizations and enjoy the associated benefits.

10 STUDENT ADVISORY COMMITTEE

The M E department has a long-standing practice of establishing a Student Advisory Committee consisting of student members drawn from the Mechanical Engineering freshmen, sophomores, juniors and seniors. The committee usually meets once a year, (or more often if needed,) to discuss the operation of the Department and make recommendations to improve the program and the quality of student life in the Department. The administration will give serious consideration to all recommendations made by the committee. The committee is reconstituted annually with new members replacing the graduating seniors.

11 LABORATORY MANUALS

In the Mechanical Engineering curriculum, you will be required to take several laboratory courses. They include the three free-standing lab courses: (i) MAE 333: *Mechanical Measurements,* (ii) MAE 332*: Experimental Methods and (iii)* MAE 405*: Senior M.E. Lab.* In addition, you will also be taking labs associated with several other courses such as MAE 419: *Heat & Mass Transfer Lab*, MAE 410: *Materials Engineering*, MAE 440: *Industrial Hydraulic Components and Circuits Design*, MAE 455: *Computer Aided Design & Drafting*, MAE 456: *Finite Element Method* etc. In these courses you will be supplied with free Laboratory Manuals prepared by the M E faculty. The lab courses are intended to train you in the techniques of how to design and conduct experiments and develop oral and written communication skills necessary to transmit experimental results. Excellent technical report writing ability and a strong background in experimentation are among the most important requirements for success in mechanical engineering profession. Use the manuals diligently and master the techniques discussed therein.

12 MINORS AND EMPHASIS

While you are working toward a degree in mechanical engineering at Tech, there are opportunities to acquire a ‘minor’ or ‘emphasis’ in subjects that might interest you besides mechanical engineering. See WVU Tech catalog for a complete list of the ‘minors’ or ‘emphasis’ and the requirements. Past experience shows that the areas most popular with the M E’s are: Mathematics and Economics. A minor in Mathematics should be of special interest if you enjoy mathematics and have some interest in going to a graduate school; because a minor in mathematics requires just three more courses beyond the four (4) required math courses for a BSME degree. It may include MATH 441: *Applied Linear Algebra*-an extremely useful course in a graduate program. Consult with your advisor or the Chair if you are interested to know more about this option.

Once again **WECOME**. We, the faculty and staff of the M E department look forward to having you as a student at Tech. Your stay of about four years with us will make a world of difference in your life and we hope they will also be fond memories of your life. Feel free to stop by the office of any faculty any time you need assistance or just to have a chat if it could help. In the M E department, "**STUDENTS ARE FIRST"** always.

APPENDIX I

Details of the Mechanical Engineering Program

MECHANICAL ENGINEERING FACULTY

DR. BERNHARD P. BETTIG, Ph.D.

Dr. Bettig, Associate Professor and Acting Chair of Mechanical Engineering, received his Doctorate Degree from Arizona State University. He is normally responsible for the following courses:

WVUe	191	-	1st Year Seminar-Mechanical Majors
MAE	242	-	Dynamics
MAE	342	-	Dynamics of Machinery
MAE	333	-	Mechanical Measurements
MAE	340	-	Vibrations
ENGR	401	-	Senior Engineering Seminar
MAE	410	-	Materials Science
MAE	423 & 419		Heat Transfer: Lecture & Lab
MAE	445	-	Computer Applications in Eng
MAE	455	-	Computer Aided Design & Drafting
MAE	456	-	Finite Element Method
MAE	468	-	Advanced Vibrations
DRET	314	-	Computer Graphics

Phone: (304)-442-3289
Email: bp@mail.wvu.edu

DR. GOVINDAPPA PUTTAIAH, Ph.D., P.E.

Dr. Puttaiah, Professor of Mechanical Engineering, received his Doctorate Degree from Pennsylvania State University. Dr. Puttaiah is a Registered Professional Engineer. He is normally responsible for the following courses:

MAE	242	-	Dynamics
MAE	340	-	Vibration
MAE	342	-	Dynamics of Machinery
MAE	405	-	Senior Mechanical Eng Lab
MAE	410	-	Materials Science
MAE	429	-	Theory of Turbomachinery
MAE	440	-	Industrial Hydraulics
MAE	449	-	Experimental Stress Analysis
MAE	454	-	Machine Design & Manufacturing
MAE	463	-	Advanced Machine Design
MAE	464	-	Mechanical Eng Projects
MAE	480	-	M. E. Systems Design I
MAE	481	-	M. E. Systems Design II

Phone: (304) -442-3374
Email: Govindappa.Puttaiah@mail.wvu,edu

DR. PAUL STERANKA, Ph.D., P.E.

Dr. Steranka, Associate Dean and Professor of Mechanical Engineering, received his Doctorate Degree from National Polytechnical Institute of Lorraine in Nancy, France. Dr. Steranka is a Registered Professional Engineer. He is normally responsible for the following courses:

MAE	201	-	Applied Engineering Analysis
MAE	242	-	Dynamics
MAE	331	-	Fluid Mechanics
MAE	332	-	Experimental Methods
MAE	407	-	Power Plant Engineering
MAE	427	-	Heating/Vent and Air Cond
MAE	428	-	Aerodynamics
MAE	460	-	Automatic Controls
MAE	480	-	M. E. Systems Design I
MAE	481	-	M. E. Systems Design II

Phone: (304) -442-3388
Email: Paul.Steranka@mail.wvu.edu

DR. FARSHID ZABIHIAN, Ph.D.

Dr. Zabihian, Assistant Professor of Mechanical Engineering, received his Doctorate Degree from Ryerson University, Canada. He is normally responsible for the following courses:

MAE	201	-	Applied Engineering Analysis
MAE	331	-	Fluid Mechanics
MAE	320	-	Thermodynamics
MAE	321	-	Applied Thermodynamics
MAE	332	-	Experimental Methods
MAE	333	-	Mechanical Measurements
MAE	407	-	Power Plant Engineering
MAE	423 & 419		Heat Transfer Theory & Lab
MAE	425	-	Internal Combustion Engineering
MAE	427	-	Heating/Vent and Air Conditioning
MAE	480	-	M. E. Systems Design I
MAE	481	-	M. E. Systems Design II

Phone: 304 442-3280
Email: Farshid.Zabihian@mail.wvu.edu

DR. Yogendra Panta , Ph.D.

Dr. Panta, Assistant Professor of Mechanical Engineering, received his Doctorate Degree from the University of Nevada, Las Vegas. He is normally responsible for the following courses:

MAE	241	-	Statics
MAE	242	-	Dynamics
MAE	320	-	Thermodynamics
MAE	321	-	Applied Thermodynamics
MAE	331	-	Fluid Mechanics
MAE	332	-	Experimental Methods
MAE	333	-	Mechanical Measurements
MAE	342	-	Dynamics of Machines
MAE	407	-	Power Plant Engineering
MAE	423	-	Heat Transfer - Lecture
MAE	419	-	Heat Transfer - Lab
MAE	425	-	Internal Combustion Engineering
MAE	429	-	Theory of Turbomachinery
MAE	464	-	Mechanical Engineering Projects

Phone: (304)-442-3348
Email: Yogendra.Panta@mail.wvu.edu

MECHANICAL ENGINEERING DEPARTMENT
PLAN of STUDY for the BSME PROGRAM

STUDENT I.D. No.:_____-_____-_____ **NAME:** _____, _____
Last **First**

SCHOLARSHIP (If any):_____ **ADVISOR:**_____

1ST YEAR-Fall Semester		**Cr Sem/Yr/Gr**
WVUE 191	1st Year Seminar	1 ____ ___ __
ENGL 101	English Composition. I	3 ____ ___ __
CHEM 115	Fund. of Chemistry I	4 ____ ___ __
DRET 120	Drafting I	2 ___ ___ ___
MATH 155	Calculus I*	4 ___ ___ ___
**** ACT(M)=28-36, SAT(M)=630-800***		**14**

2ND YEAR-Fall Semester		**Cr Sem/Yr/Gr**
MAE 242	Dynamics	3 ____ ___ __
MAE 243	Mechanics of Materials	3 ____ ___ __
MAE 240	Manufacturing Processes	3 ____ ___ __
MATH 251	Multivariable Calculus	4 ____ ___ __
PHYS 111	General Physics. I	4 ____ ___ __
		17

3RD YEAR-Fall Semester		**Cr Sem/Yr/Gr**
MAE 342	Dynamics of Machinery	3 ____ ___ __
MAE 333	Mechanical Measurements	1 ____ ___ __
MAE 321	Applied Thermodynamics	3 ____ ___ __
EE 221	Intro to Electrical Engineering	3 ____ ___ __
EE 222	Intro to Ele Engr. Laboartory	1 ____ ___ __
MAE 454	Machine Design & Mfg	3 ____ ___ __
		14

4TH YEAR-Fall Semester		**Cr Sem/Yr/Gr**
MAE 405	Sr. Mechanical Engi Lab	1 ____ ___ __
MAE 455	CADD	3 ____ ___ __
MAE 480	ME Systems Design I	3 ____ ___ __
_____ ___	_____(GEF # F6)	3 ____ ___ __
_____ ___	_____(GEF/# F7)	3 ____ ___ __
_____ ___	Technical Elective 1	3 ____ ___ __
		16

1ST YEAR-Spring Semester		**Cr Sem/Yr/Gr**
ENGL 102	English Comp II	3 ___ ___ ___
ENGR 111	Software Tools for Eng	3 ____ ___ __
_____ ___	_____ (GEF # F5)	3 ____ ___ __
MAE 241	Statics	3 ___ ___ ___
MATH 156	Calculus II	4 ___ ___ ___
		16

2ND YEAR-Spring Semester		**Cr Sem/Yr/Gr**
PHYS 112	General Physics II	4 ____ ___ __
MAE 331	Fluid Mechanics	3 ____ ___ __
MAE 201	Applied Eng Ana	3 ____ ___ __
MAE 320	Thermodynamics	3 ____ ___ __
MATH 261	Elem Diff. Equations	4 ____ ___ __
		17

3RD YEAR-Spring Semester		**Cr Sem/Yr/Gr**
MAE 332	Experimental Methods	1 ____ ___ __
MAE 423	Heat Transfer	3 ____ ___ __
MAE 419	Heat Transfer lab	1____ ___ __
MAE 340	Vibration	3 ____ ___ __
ENGL 305	Technical Writing	3 ____ ___ __
ECON 401	Manag Econ (GEF# F4)	3 ____ ___ __
MAE 460	Auto Controls	3 ____ ___ __
		17

4TH YEAR-Spring Semester		**Cr Sem/Yr/Gr**
ENGR 401	Sr. Engineering Seminar	1 ____ ___ __
MAE 410	Materials Science	4 ____ ___ __
MAE 456	Finite Element Method	3 ____ ___ __
MAE 481	ME Systems Design II	3 ____ ___ __
_____ ___	Technical Elective 2	3 ____ ___ __
		14

	Course #/Sem/Yr
GEF # F4: ***Society & Connections*** (3)	Econ 401 /____/___
GEF # F5: ***Human Inquiry & Past*** (3)	_____ /____/___
GEF # F6: ***The Arts & Creativity*** (3)	_____ /____/___
GEF # F7: ***Global Diversity Studies*** (3)	_____/____/____

	Course #/ Sem/Yr
Technical Elective 1	_____/____/____
Technical Elective 2	_____/____/____

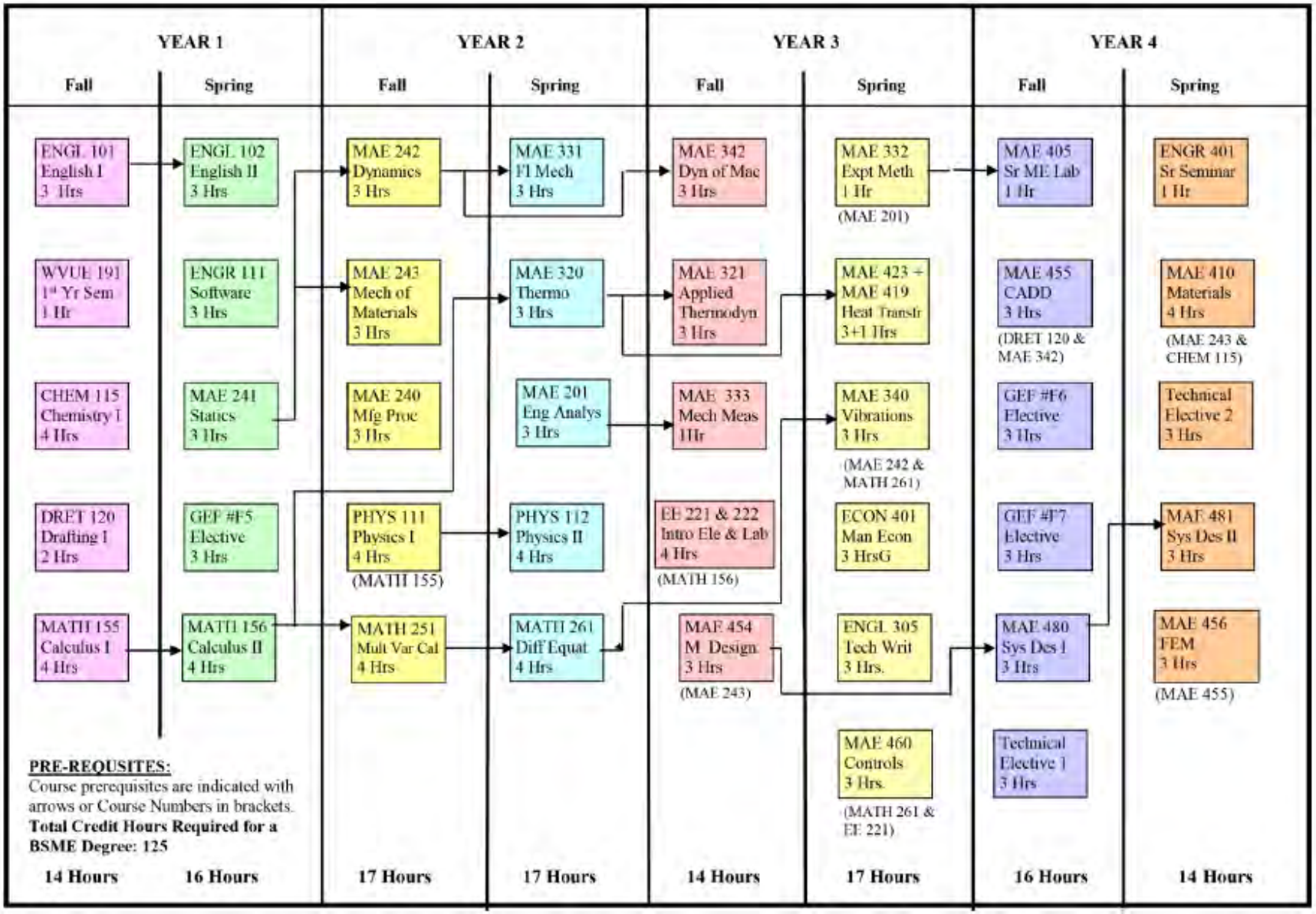
ALL TECHNICAL AND GEF ELECTIVES MUST BE APPROVED BY THE M.E. DEPARTMENT ADVISORS. Students & Advisors: Use the GEF 'Working Matrix', (available in the M.E. department office,) to select appropriate GEF Courses.

SAT (V) _____ (M) _____
ACT (E) _____ (M) _____ (R) ____(S)____(C)____
ENGL 090:Dev Writing- ACT(E) = 0-17/SAT(V) = 200-429
ENGL 091: Fund Reading-ACT(R) = 0-16/SAT(V) = 200-419
All others must take ENGL 101 & ENGL 102 Regardless of ACT(E) or SAT(V) scores

MATH 126A*/126B**: 5-Day/4-Day Algebra 3 ___ ___ __
MATH 128: Trigonometry ***[ACT(M)=19-27]*** 3___ ___ __
****ACT(M)=19-22/SAT(M)=460-539: 5-Day College Algebra***
*****ACT(M)=23-27/SAT(M)=540-629: 4-Day College Algebra***

TOTAL SEMESTER HOURS FOR GRADUATION: 125

WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY
Mechanical Engineering Department
Plan of Study Flow Chart for the BSME Program



AEROSPACE ENGINEERING

A 2+2 Program offered with West Virginia University (Morgantown)

West Virginia University Institute of Technology (WVU Tech) and West Virginia University (WVU) have joined their resources to offer a 2+2 aerospace program, (two years each at Montgomery and Morgantown), leading to a Bachelor of Science in Aerospace Engineering degree. Under this arrangement, a student interested in a BSAE degree from WVU, can start as a freshman at WVU Tech in mechanical engineering, complete the appropriate courses in four semesters with a GPA of at least 2.0 at Montgomery and transfer to the Mechanical and Aerospace Engineering (MAE) Department at Morgantown. Upon completion of the appropriate curriculum requirements, as indicated in the pattern sheet below and the WVU catalog during the following four semesters at Morgantown, he/she may receive a BSAE degree from WVU.

Air travel has fascinated humans for a long time. Recent technical advances in aerospace travel, space exploration, and flight of manned and unmanned vehicles have been phenomenal and continue to gain in significance. Aerospace engineering deals with the science and technology of airborne and space vehicles such as airplanes, rockets, missiles and spacecrafts. Aerospace technology has also been successfully adopted to improve the performance of many earth-bound vehicles such as hydrofoil ships, high-speed trains and automobiles.

The aerospace engineering program at WVU is designed to prepare the student for a career in the aerospace industry or in the government research and development centers and laboratories, as well as in military mission-oriented agencies. The undergraduate curriculum also allows the student to prepare for graduate studies in aerospace engineering and in other engineering as well as non-engineering fields.

The Aerospace curriculum includes studies in the disciplines encountered in the design of aerospace vehicles, missiles, rockets and spacecraft. The undergraduate curriculum includes extensive study of the basic principles of fluid dynamics, solid mechanics and structures, stability and control, thermal sciences and propulsion.

The student is involved in both theoretical and experimental studies, and is trained to integrate basic knowledge of physical and engineering sciences with practical engineering design. With the breadth and depth of education in aerospace engineering, the student becomes a versatile engineer, competent to work in many areas. The curriculum may serve as a terminal program by incorporating design oriented courses for technical electives, or it may be used as a preparatory program for advanced study by the selection of science-oriented courses.

Students can also pursue simultaneously B.S. degrees in both aerospace engineering and mechanical engineering by completing additional courses. Information on this 158-credit hour option can be obtained from the Mechanical and Aerospace Engineering department at WVU.

The student should refer to the university catalog and relevant WVU publications for additional information on the graduation requirements.

PLAN OF STUDY for the (2+2) BSAE PROGRAM (Montgomery & Morgantown)

STUDENT ID No.: _____ - _____ - _____

NAME: _____, _____ ADVISOR: _____
Last First

1ST YEAR-Fall (Montgomery)		**Cr Sem/Yr/Gr**
ENGL	101 English Comp. I	3 ____ ___ __
WVUE	191 1st Year	____ ___ __
MATH	155 Calculus I*	4 ____ ___ __
CHEM	115 Chemistry I	4 ____ ___ __
DRET	120 Drafting I	2 ____ ___ __
*ACT(M)=28-36 / SAT (M) = 630-800		**14**

1ST YEAR-Spring (Montgomery)			**Cr Sem/Yr/Gr**
ENGL	102	English Comp II	3____ ___ __
ENGR	111	Software Tools for Engineers	3 ____ ___ __
MAE	241	Statics	3 ___ ___ ___
MATH	156	Calculus II	4 ___ ___ ___
____	____	_____ **(GEF #F5)**	3 ___ ___ ___
			16

2ND YEAR-Fall (Montgomery)			**Cr Sem/Yr/Gr**
MAE	242	Dynamics	3 ____ ___ __
MAE	243	Mechanics of Materials.	3 ____ ___ __
MATH	251	Multivariable Calculus	4 ____ ___ __
PHYS	111	General Physics I	4 ____ ___ __
____	___	_____ **(GEF #F6)**	3 ____ ___ __
			17

2ND YEAR-Spring (Montgomery)			**Cr Sem/Yr/Gr**
MAE	331	Fluid Mechanics	3 ____ ___ __
MAE	320	Thermodynamics	3 ____ ___ __
MATH	261	Elem. Differential Equations	4 ____ ___ __
PHYS	112	General Physics II	4 ____ ___ __
ECON	201	Microeconomics **(GEF #F4)**	3 ____ ___ __
			17

3RD YEAR-Fall (Morgantown)			**Cr Sem/Yr/Gr**
MAE	215	***Intro to Aerospace Eng****	3 ____ ___ __
MAE	316	Analysis of Engr. Systems	3 ____ ___ __
MAE	335	***Incompressible Aerodynamics***	3 ____ ___ __
MAE	343	Intermed. Mech. of Materials	3 ____ ___ __
ECON	202	Macroeconomics **(GEF #F8)**	3 ____ ___ __
			15

3RD YEAR-Spring (Morgantown)			**Cr Sem/Yr/Gr**
MAE	336	***Compressible Aerodynamics***	3 ____ ___ __
MAE	345	***Aerospace Structures***	3 ____ ___ __
MAE	365	***Flight Dynamics***	3 ____ ___ __
EE	306	Basic Electrical Engineering	3 ____ ___ __
EE	307	Basic Electrical Engr. Lab	1 ____ ___ __
MAE	244	Dynamics & Strength Lab	1 ____ ___ __
____	___	_____ **(GEF #F7)**	3 ____ ___ __
			17

4TH YEAR-Fall (Morgantown)			**Cr Sem/Yr/Gr**
MAE	426	***Flight Vehicle Propulsion***	3 ____ ___ __
MAE	434	***Experimental Aerodynamics***	2 ____ ___ __
MAE	456	***CAD/Finite Element Analysis***	3 ____ ___ __
MAE	476	***Space Flight and Systems***	3 ____ ___ __
_____	___	_____# 1Tech Elective**	3 ____ ___ __
			14

4TH YEAR-Spring (Morgantown)			**Cr Sem/Yr/Gr**
MAE	423	Heat Transfer	3 ____ ___ __
MAE	460	Automatic Controls	3 ____ ___ __
MAE	475	***Flight Vehicle Design***	3 ____ ___ __
____	___	_____ # 2 Technical Elective**	3 ____ ___ __
____	___	_____ # 3 Technical Elective**	3 ____ ___ __
			15

Courses shown in red/italics are taught only at the WVU campus in Morgantown in the semesters indicated.

(i) ** Nine hours of technical electives must be selected from a list of approved Aerospace Engineering technical electives after consulting with the advisor. The courses selected should form a clear and consistent pattern according to the career objectives of the student.

(ii) A total of 12 hours of **General Education Foundation courses (GEF #F4, F5, F6, & F7)** must be selected from the approved list of courses to meet the University and the college GEF requirements. **All Electives must be approved by your advisor.**

	Course #/Sem/Yr		**Course #/Sem/Yr**
GEF # F4: ***Society & Connections*** (3)	ECON 201 ___/___	Technical Elective #1	_____/____/____
GEF # F5: ***Human Inquiry & Past*** ***(3***	_____/____/__	Technical Elective #2	_____/____/____
GEF # F6: ***The Arts & Creativity*** ***(3***	_____/____/___	Technical Elective #3	_____/____/____
GEF # F7: ***Global Diversity Studies*** ***(3)***	_____/____/___	MATH 126A*/126B**:5-day/4-day Algebra	3 ___
		MATH 128 Trig(ACT(M)=(19-27)	3 ___

ACT(E)____ (M)____(R)____(S)_____(C)_____
SAT(V)_____ (M)_____

ACT(M)=19-22/SAT(M)=460-539: 5-Day College Algebra
ACT(M)=23-27/SAT(M)=540-629: 4-Day College Algebra

TOTAL SEMESTER HOURS FOR GRADUATION = 125

(Graduation requirements for the BSAE degree are governed by the prevailing policies of the MAE Department at West Virginia University, Morgantown.)

MECHANICAL ENGINEERING
TECHNICAL ELECTIVES

The primary objective of including technical electives in the curriculum is to encourage you to develop professional interest in a specific area of mechanical engineering which you may wish to pursue further in your career as a 'specialization'. However, in order to broaden your horizon you are encouraged to take at least one course each in 'energy' and 'mechanical systems' areas, shown on the next page.

The courses listed below are the only acceptable Technical Electives approved by the Mechanical Engineering faculty. If you decide to take a course from the list that is outside the M.E. department (i.e. without MAE designation), make sure you meet their prerequisites. Any other course that is of interest to you but is not listed here, must be approved by your academic advisor, the M.E. Chair and the Dean. A 'Substitution Form' must be completed and sent to the registrar with a copy retained in your folder in the M .E. office.

MAE	**311**	**Intermediate Mechatronics**
MAE	**407**	**Power Plant Engineering**
MAE	**425**	**Internal Combustion Engineering**
MAE	**427**	**Heating, Ventilating & Air Conditioning**
MAE	**428**	**Aerodynamics**
MAE	**429**	**Theory of Turbomachinery**
MAE	**440**	**Industrial Hydraulic Components and Circuits**
MAE	**445**	**Computer Applications in Engineering**
MAE	**449**	**Experimental Stress Analysis**
MAE	**463**	**Advanced Machine Design**
MAE	**468**	**Advanced Vibrations**
CS	**456**	**Numerical Analysis**
CS	**470**	**Introduction: Computer Graphics**
CE	**461**	**Structural Analysis**
CE	**421**	**Hydraulic Engineering**
DRET	**314**	**Computer Graphics**
CPE	**271/271**	**Intro Digital Logic Design/Lab**
EE	**335/336**	**Electromechanical Energy Conservation Systems/Lab**
EE	**420**	**Microcomputers**
EE	**427**	**Introduction to Robotics**
ELET	**436**	**Programmable Logic Controllers**
INDT	**302**	**Industrial Safety**
INDT	**308**	**Automated Manufacturing**
INDT	**410**	**Plant Equipment & Maintenance**
MATH	**441**	**Applied Linear Algebra**
MATH	**448**	**Probability and Statistics**

MECHANICAL ENGINEERING
TECHNICAL ELECTIVES

Although the M.E. curriculum requirements specify two Technical Electives, it is not mandatory that you select them from any one specific area. It is recommended that you take at least one course from each of two 'stems': Energy and Mechanical Systems.

Course No	Course Name	Stem
MAE 311	Intermediate Mechatronics	Other
MAE 407	Power Plant Engineering	Energy
MAE 425	Internal Combustion Engineering	Energy
MAE 427	Heating, Ventilating & Air Conditioning	Energy
MAE 428	Aerodynamics	Other
MAE 429	Theory of Turbomachinery	Energy
MAE 440	Industrial Hydraulic Components and Circuits	M S *
MAE 445	Computer Applications in Engineering	Other
MAE 449	Experimental Stress Analysis	M S
MAE 463	Advanced Machine Design	M S
MAE 468	Advanced Vibrations	M S

CLASSIFICATION OF ELECTIVES

ENERGY	*MECHANICAL SYSTEMS	OTHER
MAE 407: Power Plant Eng	MAE 440: Hydraulics	MAE 311: Intermediate Mechatronics
MAE 425: I C Engineering	MAE 449: Exptl Stress Analysis	MAE 428: Aerodynamics
MAE 427: Heat/Vent/Air Cond	MAE 463: Adv Mach Des	MAE 445: Comp Applications
MAE 429: Turbomachinery	MAE 468: Adv Vibrations	

MECHANICAL ENGINEERNG PROGRAM COURSES
-Major Subjects

MAE - MECHANICAL AND AEROSPACE ENGINEERING

ß—Co-requisite to be taken same time. F=Fall Semester only, S=Spring Semester only

MAE-201 APPLIED ENGINEERING ANALYSIS (3-0) 3 S
(ENGR 111, MATH 156)
Overview of engineering analysis fundamentals. Applied linear algebra and statistical analysis. Use of software such as spreadsheets, symbolic and analytic mathematical modeling packages, solid modeling packages, preparation of graphs of data and curve fitting.

MAE-240 MANUFACTURING PROCESSES (2-3) 3 F & S
(ß DRET-120)
An introduction to manufacturing systems and strategy. A study of Manufacturing Processes. Measurement and quality assurance, engineering materials; machining, welding and casting processes; hot and cold forming and joining processes, manufacturing and production systems, thermal treatments; equipment and process demonstration films. Lab involves student performed projects utilizing experience in operation of the various processes.

MAE-241 STATICS (3-0) 3 F & S
(MATH-155)
Addition and resolution of forces, equilibrium of a particle, moment of a force, vector methods, equivalent force systems, equilibrium in two and three dimensions, analysis of trusses, analysis of frames and machines, analysis of beams - shear and moment diagrams, friction, centroids, center of gravity, and moment of inertia.

MAE-242 DYNAMICS (3-0) 3 F & S
(MAE-241, MATH-156)
Particle dynamics including study of rectilinear and curvilinear motion, Newton's laws, work and energy, impulse and momentum. Systems of particles, kinematics of rigid bodies, plane motion of rigid bodies, kinetics of rigid bodies in three dimensions.

MAE-243 MECHANICS OF MATERIALS (3-0) 3 F & S
(MAE-241, MATH-156)
Analysis of stresses, strains, and deformations in tension members, thin-walled pressure vessels, connections, circular torsion members, beams and columns. Members with combined loadings are also covered.

MAE-311 INTERMEDIATE MECHATRONICS (3-0) 3 As needed
(MAE-242, MATH 156, EE 221 or Consent of Instructor)
Circuits and electronics, sensors, and actuators. Analysis and synthesis of mechatronic systems, electromechanical system coupling, actuating devices, real time interfacing and case studies.

MAE-320 THERMODYNAMICS (3-0) 3 S
(MATH-156)
Fundamental concepts of energy analysis along with models for material properties necessary for problem solving including use of computer-aided thermodynamic property tables; First Law, introduction to Second Law, pressure, temperature, volume, enthalpy, and entropy. Design of some simple thermal systems.

MAE-321 APPLIED THERMODYNAMICS (3-0) 3 F
(MAE-320) (Continuation of Thermodynamics)
Irreversibility and availability; power and refrigeration cycles, thermodynamic relations; mixtures and solutions; chemical reaction; phase and chemical equilibrium; flow through nozzles and blade passages. Design of some illustrative thermal systems.

MAE-331 FLUID MECHANICS (3-0) 3 F & S
(MAE-242, MATH-156)
Properties of fluids, fluid statics, fluid kinematics, thermodynamic principles, momentum and energy principles, similitude and dimensional analysis, laminar and turbulent flow, viscous effects, flow in pressure conduits.

MAE-332 EXPERIMENTAL METHODS (0-3) 1 S
(ßMAE-321, MAE-201)
Methodology of experimental investigation; common properties of electrical, mechanical, thermal, and fluid systems, statistical analysis of data.

MAE-333 MECHANICAL MEASUREMENTS (0-3) 1 F
(MAE-320, MAE-201)
Laboratory measurements of physical quantities relevant to the mechanical engineering practice. Probability and statistical analysis of experimental data. Calibration of instruments. Sensors and transducers for temperature, pressure, strain, and fluid flow measurements. Technical report writing.

MAE-340 VIBRATIONS (3-0) 3 S
(MATH-261, MAE-242)
Review of linear algebra. Systems of one degree of freedom, undamped and damped; free and forced vibrations; transient and nonlinear vibrations; multi-degree of freedom systems with simulations by analog or digital computer.

MAE-342 DYNAMICS OF MACHINERY (3-0) 3 F
(MAE-242, ß MAE 454)
Analysis of motion in linkages, cams, gears and other basic mechanisms. Synthesis of linkages, cams, gear profiles, and gear trains. Analysis techniques include algebraic, graphical methods, and computer simulation.

MAE-405 SENIOR MECHANICAL ENGINEERING LAB (0-3) 1 F & S
(MAE 332, MAE 423, MAE 201)
Analysis and testing of selected thermal or mechanical systems, such as, turbines, fans, pumps, air conditioning, vibration, and internal combustion engines, statistical analysis.

MAE-407 POWER PLANT ENGINEERING (3-0) 3 As needed in F
(MAE-321, MAE-423 or consent of instructor)
Fuels and combustion, steam generators, super heaters, reheaters; condensers, economizers; feed water heaters; air preheaters, draft systems; introduction to nuclear power plant systems; aspects of environmental pollution, alternative energy systems including hydroelectric plants; field trips.

MAE-410 MATERIALS SCIENCE (3-3) 4 S
(CHEM-115, MAE-243, Senior Status)
Metals, microstructure, chemical composition, heat treatment, plastic deformation, fracture, fatigue, creep, and wear; introduce preparation and microscopic examination of specimens; advanced materials testing.

MAE-423 HEAT TRANSFER (3-0) S
(MAE-320)
Steady-state and transient conduction; one-, two-, and three-dimensional conduction; free and forced convection; radiation; heat exchangers; heat and mass transfer by analytical, numerical, analogical, and experimental methods. Design of thermal systems.

MAE-419 MAE 423 HEAT TRANSFER LAB (0-3) 1 S
(ß MAE 423)
It is a lab session consisting of traditional and computer-linked experiments on various heat transfer processes such as conduction, convection and radiation. Experiments involving several types of commercial heat transfer equipment are also included.

MAE-425 INTERNAL COMBUSTION ENGINEERING (3-0) 3 As needed
(MAE-321)
Operating characteristics; engine cycles; thermochemistry and fuels; air and fuel induction; fluid motion within combustion chamber; combustion; exhaust flow; emissions and air pollution; heat transfer in engines; friction and lubrication, survey of recent developments.

MAE-427 HEATING/VENTILATING/ AIR CONDITIONING (3-0) 3 As needed
(MAE-321, MAE 423 or consent of instructor)
Air and humidity relations; comfort and indoor air quality; building heat transfer; design heating and cooling loads; air distribution; refrigeration; systems and equipment; system energy analysis; control systems.

MAE-428 AERODYNAMICS (3-0) 3 As needed
(MAE-321, MAE-331)
Bernoulli's equation; dimensional analysis; potential flow analysis; lift analysis; compressible flow through nozzles; shock wave analysis; boundary layer effects; experimental testing in subsonic and supersonic flows.

MAE-429 THEORY OF TURBOMACHINES (3-0) 3 As needed
(MAE-321, MAE-331)
Dimensional analysis; energy transfer between a fluid and a rotor; thermodynamics of gas flow; flow of fluids in turbomachines; centrifugal pumps and compressors; radial flow turbines; axial flow turbines; performance of compressors and pumps and comparison of types.

MAE-440 INDUSTRIAL HYDRAULICS: COMPONENTS AND CIRCUITS DESIGN (2-3) 3 As needed
(MAE-242, MAE-331 or consent of instructor)
Basic laws of fluid power. Fluids and auxiliaries. Energy input, energy control and energy output devices. Hydraulic circuits, symbology, operation, analysis and design practices. Component selection and performance analysis.

MAE-445 COMPUTER APPLICATIONS IN ENGINEERING (3-0) 3 As needed in F
(ENGR-111, MATH-251)
Use of spreadsheets for engineering applications. Graphics, drawing and plotting packages. Mathematical packages for equation solving and symbolic algebra. Overview of MATHCAD, MAPLE, MATLAB, 3-D solid modeling using I-DEAS and AUTODESK INVENTOR, Computational Fluid Dynamics Modeling, Visualization and Post-processing.

MAE-449 EXPERIMENTAL STRESS ANALYSIS (2-3) 3 As needed
(MAE 243, MAE-454)
Mechanical, optical, electrical, grid, Moire fringe and brittle coating methods; strain gauge circuitry; photoelasticity; strain indicators; recorders, reflection and circular polariscopes.

MAE-454 MACHINE DESIGN AND MANUFATURING (2-3) 3 F
(MAE-243; ßMAE-342)
Working stresses, theories of failure, fatigue, welded joints, design of machine elements such as shafting, screws, springs, belts, clutches, brakes, gears, bearings and miscellaneous machine elements.

MAE-455 COMPUTER AIDED DESIGN AND DRAFTING (2-3) 3 F
(MAE 201, MAE-342 & Senior Status or consent of instructor)
Computer-aided design fundamentals. Use of graphics capabilities of the microcomputer for Engineering Design and Simulation. Exposure to commercial CAD and Motion Simulation packages. 2-D and 3-D computer drafting. Solid Modeling applications. A preparatory course for Finite Element Method.

MAE-456 FINITE ELEMENT METHOD (2-3) 3 S
(ß MAE 423, MATH-251, MAE-454, MAE 455)Finite element formulation of boundary value problems in engineering. Design and application of one– and two— dimensional elements. The direct formulation approach will be used to formulate the problems. Modern FEM and solid modeling software will be utilized for the solution of representative problems.

MAE-460 AUTOMATIC CONTROLS (3-0) 3 S
(EE-221, MATH-261)
Analysis and design for controlling solid body, thermal, and electromechanical systems. Control system design to satisfy performance criteria including stability, response time, steady-state error, and disturbance rejection using both analytic solutions and numerical simulation; compensation design in the time and frequency domains.

MAE-463 ADVANCED MACHINE DESIGN (3-0) 3 As needed in S
(MAE-201, MAE-454)
Theories of failure in 2-D and 3-D stress systems. Fatigue failure modes and their analysis. Fatigue life estimation techniques. Plasticity of metals and applications. Creep behavior of engineering materials. Shock, wear, corrosion, and other modes of failure. Thermal stresses.

MAE-464 MECHANICAL ENGINEERING PROJECTS (1 to 4) As needed
(Junior or senior status)
An investigation of analytical or experimental nature; design, construction and testing of an experimental apparatus.

MAE-468 ADVANCED VIBRATIONS (3-0) 3 As needed
(MAE-340)
Three-dimensional kinematics and kinetics of particles and rigid bodies. Lagrangian mechanics; Hamiltonian methods; Equations of motion for strings, membranes, prismatical bars, and plates for various boundary conditions; approximate methods for complicated shapes.

MAE-480 SYSTEMS DESIGN I (3-0) 3 F
(MAE-454 one semester before graduation)
Professional ethics, the role of engineer in Society, professionalism and current issues in engineering. Systems design applied to a project; lectures cover morphology of design, the design processes, decision and optimization techniques, and computer aided design. Begin a design project to be completed in MAE 481.

MAE-481 SYSTEMS DESIGN II (3-0) 3 S
(MAE-480)
A semester-long design project in which students normally work in teams. Formal report required at the end of the semester.

MAE-493 SPECIAL TOPICS IN MECHANICAL ENGINEERING (1 to 3) As needed

MECHANICAL ENGINEERNG PROGRAM COURSES-CONTD —*Support Subjects*

CHEM – CHEMISTRY

CHEM-115 FUNDAMENTALS OF CHEMISTRY I (3-3) 4 F & S
Prerequisite CHEM 110 or Satisfactory performance on departmental examination. For students who need more than one year of college chemistry and quantitative relationships on which subsequent chemistry courses are built. (Students may not receive credit for CHEM-117 and for CHEM-115.) Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

DRET – DRAFTING

DRET – 120 DRAFTING I (2-2) 2 F & S
Fundamentals of drafting through the use of sketching and computer graphics as applied to orthographic views, sectional views, isometric views and threads and fasteners. Also the student will be introduced to computer graphics early in the program and will be required to produce much of their work using a Computer Aided Drafting (CAD) software.

ENGR – ENGINEERING

ENGR-101 Engineering Problem Solving I (0-2) 2 S
Orientation to engineering disciplines, academic success strategies, engineering design process and team projects, use of computers in problem solving, technical report writing, presentation techniques, and internet applications.

ENGR-111 SOFTWARE TOOLS FOR ENGINEERS (3-0) 3 F & S
(§MATH-126 and §MATH-128)
Use of software tools such as spreadsheets, numerical and symbolic mathematical analysis packages. Study of programming language, including elementary programming concepts and techniques. Preparation of graphs, interpolation and curve fitting, numerical integration and differentiation, and solution of linear and non-linear simultaneous equations. Emphasis is on the application of numerical methods and software applications. Laboratory practice is required.

ENGR-401 SENIOR ENGINEERING SEMINAR (1-0) 1 F & S
(Senior Standing)
Ethics and professionalism, engineering safety, copyright and liability issues. Citizenship, role of the engineer in society, current issues in engineering, ecological considerations and impact of globalization.

ENGR-402 FUNDAMENTALS OF ENGINEERING REVIEW (2-0) 2 F & S
(Senior Standing)
This course provides information and review materials for students planning to take the Fundamental of Engineering (FE) exam. This course requires prior knowledge of the subject matter and will concentrate on problem solving and review. Basic concepts will be referenced, but will be explained only where the majority of students lack earlier exposure to the material. The topics included are statics, dynamics, mechanics of materials, fluid mechanics, mathematics, probability and statistics, chemistry, engineering economics, electricity and magnetism, material properties, thermodynamics, computers, and ethics and business practices.

EE – ELECTRICAL ENGINEERING

EE-221. INTRODUCTION TO ELECTRICAL ENGINEERING. (3-0) 3 F & S
(C or Better in MATH 156)
Electrical engineering units, circuit elements, circuit laws, measurement principles, mesh and node equations, network theorems, operational amplifier circuits, energy storage elements, sinusoids and phasors, sinusoidal steady state analysis, average and RMS values, complex power.

EE-222. INTRODUCTION TO ELECTRICAL ENGINEERING LABORATORY. (0-3) 1 F & S
(§EE 221. Design and experimental exercises basic electrical circuits. Use of the digital computer to solve circuit problems. (3 hr. lab.)

EE-223. ELECTRICAL CIRCUITS. (3-0) 3 F & S
(§MATH 261; C or better in EE 221 and EE 222)
Continuation of EE 221. Time response of RC and RL circuits, unit step response, second order circuits, poly-phase systems, mutual inductance, complex frequency, network frequency response, two-port networks and transformers. Fourier methods and Laplace Transforms.

EE-224. ELECTRICAL CIRCUITS LABORATORY. (0-3) 1 F & S
(§EE 223. Design and experimental exercises in circuits. Transient circuits, steady state AC circuits, frequency response of networks. Use of digital computer to solve circuit problems. (3 hr. lab.)

INDT – INDUSTRIAL TECHNOLOGY

INDT-302 INDUSTRIAL SAFETY (3-0) 3 F
Topics covered in this course will include: manual handling and material storage; mechanical injuries; industrial environmental hazards - solvents, particulates, noise, radiation, toxicology, and ergonomics, etc.; monitoring instruments; protective devices; industrial hygiene programs and safety practice in the use of basic hand and machine tools, with reference to OSHA, and other regulatory safety regulations.

INDT-308 AUTOMATED MANUFACTURING (2-3) 3 S
(MEET-121, GNET-108, MATH-041, or ßMATH-114, or consent of department)
Principles, techniques and applications of Numerical Control CNC programming utilizing CAD/CAM, automated methods of material handling, manufacture, assembly, inspection/testing and material processing. Field trips may be included.

INDT 410 PLANT EQUIPMENT AND MAINTENANCE (2-3)3 S
(Junior status, MATH 126 & MATH 128)
A study of various manufacturing equipment, maintenance planning, scheduling, staffing, training, and resource management for maintenance requirements in industrial/educational facilities. Field trips may be included.

MATH – MATHEMATICS

MATH-91 ELEMENTARY ALGEBRA (3-0) 3 F & S
(For students with ACT score of 14-16)
Addition and multiplication of polynomials; integral exponents; graphing linear equations; linear inequalities; solving systems of linear equations; real number operations; solving linear equations. Credit not applicable toward degree requirements.

MATH-93 INTERMEDIATE ALGEBRA (3-0) 3 F/S
(For students with ACT score of 17-18 or C or better in MATH 91)
Radical expressions; radical, rational, and quadratic equations; factoring; rational expressions; absolute value equations and inequalities; solving systems by determinants. Credit not applicable toward degree requirements.

MATH-121 INTRODUCTORY CONCEPTS OF MATHMATICS (3-0) 3 F & S
(Grade of C or better in MATH-91 or MATH-93 or a math ACT of 19 or more and 1 unit of high school algebra. Designed for non-science majors who do not need the techniques of mathematics for other coursework in their programs.)
Topics in modern mathematics.

MATH-123 FINITE MATH (3-1) 3 F & S
(Grade of C or better in MATH-91 or MATH-93, or 1 unit of high school algebra and ACT math score of 19 or higher)
Fundamentals of algebra; functions and graphs; linear functions; introduction to exponential and logarithmic functions; solving linear and quadratic equations; matrices.

MATH 126A -5 Day COLLEGE ALGEBRA (3-2) 3 F & S
(For engineering, science, or mathematics students with 2 units each of high school algebra, 1 unit of high school geometry and a math ACT score of 19-22; or a "C" or higher in Math 93) (3 credits applicable toward degree requirements.) (See MATH 126B for Topics)

MATH-126B-4 Day COLLEGE ALGEBRA (3-1) 3 F & S
(2 units of high school algebra, 1 unit of high school geometry and ACT math score of 23 or higher. Students who have passed Math-93 must register for Math-126A and not Math-126B.)
Review of the real number system and algebraic expressions, equations, inequalities, graphing, functions, exponential and logarithmic functions, basic matrix operations and properties systems of equations, polynomials.

MATH-128 PLANE TRIGONOMETRY (3-1) 3 F & S
(Grade of C or better in MATH-93; or 2 units of high school algebra, 1 unit of high school geometry and ACT math score of 19 or higher) Trigonometric functions, identities, vectors, complex numbers, and trigonometric equations.

MATH-150 INTRODUCTION TO CALCULUS (3-0) 3 S
(Grade of C or better in MATH-124 or MATH-126A or MATH-126B)
Disciples other then engineering needing calculus for applications. Limits of sequences and functions, continuity, derivatives, and integrals of polynomials, rational functions, and exponential and logarithmic functions, partial derivatives, maxima and minima.

MATH-155 CALCULUS 1 (4-1) 4 F & S
(Grade of C or better in MATH-126A and MATH-128; or a grade of C or better in MATH-126 and MATH-128; or ACT math score of 28 or higher). Introduction to limits, continuity, derivatives, antiderivatives, definite integrals, and applications of the derivative.

MATH-156 CALCULUS 2 (4-0) 4 F &S
(Grade of C or better in MATH-155) Techniques of integration, applications of the definite integral, polar coordinates, indeterminate forms, infinite series.

MATH-218 HISTORY OF MATHEMATICS (3-0) 3 S
Offered as needed. Development of mathematics through calculus, with emphasis on mathematical theories and techniques of each period and their historical evolution.

MATH-251 MULTIVARIABLE CALCULUS (4-0) 4 F & S
(Grade of C or better in MATH-156) Introduction to solid analytic geometry, vector algebra, matrix algebra, calculus of several variables.

MATH-261 ELEMENTARY DIFFERENTIAL EQUATIONS (4-0) 4 F & S
(MATH-251; Grade B or better in MATH-315) Ordinary differential equations, Laplace transforms, partial differential equations, Fourier series, applications. Emphasis on learning to prove theorems.

MATH-315 ADVANCED TECHNICAL MATHEMATICS (4-0) 4 F
(Grade of C or better in MATH-117; This course may not be used as credit toward a math major or minor.)
Applications of integration to areas, volumes, centroids, and moments of inertia; differentiation and integration of trigonometric, logarithmic and exponential functions; methods of integration, expansion of functions in series; elementary differential equations.

MATH-420 NUMERICAL ANALYSIS 1 (3-0) 3 Offered as needed.
(MATH-261 or MATH 441, Programming ability required)
Computer arithmetic, roots of equations, interpolation, Gaussian elimination, numerical integration and differentiation. Numerical solution of initial value problems for ordinary differential equations. Least square approximations.

MATH-441 APPLIED LINEAR ALGEBRA (3-0) 3 F & S
(MATH-251)
Matrix algebra with emphasis on algorithmic techniques and applications to physical models. Topics include solution of large systems of equations, orthogonal projections and least squares, and eigenvalue problems.

MATH-448 PROBABILITY AND STATISTICS (3-0) 3 F & S
(MATH-251; grade of B or higher in MATH-315)
Samples spaces; probability, definition and elementary properties; random variables, expectation; special distributions; estimation; hypothesis testing; linear regression.

MATH-451 INTRO TO REAL ANALYSIS 1 (3-0) 3 F
(MATH-283 or consent of the department)
A study of sequences, convergence, limits, continuity, definite integral, and derivative, differentials, functional dependence, multiple integrals, sequences, and series of functions.

PHYS – PHYSICS

PHYS-111 GENERAL PHYSICS (3-3) 4 F
(A grade of C or better in MATH 155)
Survey of classical mechanics, thermodynamics, and waves.

PHYS-112 GENERAL PHYSICS (3-3) 4 S
(PHYS 111)
Survey of electricity, magnetism and optics.

PHYS-314 INTRODUCTORY MODERN PHYSICS(3-3) 4 as needed
(PHYS 112 and MATH 156)
Topics of modern physics of interest to science majors and engineers; atomic and molecular structure and spectra, solid state and nuclear physics, relativity, and elementary particles.

INSTITUTIONS WITH ARTICULATION AGREEMENTS WITH WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

The LCN College of Engineering, Sciences and Mathematics has articulation agreements that permit transfer of equivalent credits for the courses completed successfully at the following institutions:

1. Belmont Technical College (OH)
2. BridgeValley Community & Technical College (WV)
3. Dabney S. Lancaster Community College (VA)
4. Hocking Technical College (OH)
5. Jefferson Community College (OH)
6. Marshall University & Mountain State Community & Technical College (WV)
7. New River Community College (VA)
8. Southern West Virginia Community & Technical College (WV)
9. Southwest Virginia Community College (VA)
10. Washington State Community College (OH)
11. West Virginia Northern Community College (WV)
12. West Virginia State University & Kanawha Valley Community & Technical College (WV)
13. West Virginia University-Parkersburg (WV).

These institutions offer courses that may be equivalent to similar courses in the M.E. curriculum. So if you have taken and completed successfully any courses at these institutions, you need to discuss it with your advisor and have a 'Transfer of Credit' form completed. If you plan to take a course(s) at any of these institutions after you have started at WVU Tech, your advisor and the registrar need to complete a 'Transient Student' form which is required by the host institution to permit you to enroll as a transient student (say during summer sessions).

The tables in the following pages show courses offered at some of these and other neighboring institutions in the region that are equivalent and transferable to the M E curriculum at Tech. They are for general information and should be used to determine approximate number of transferable credits. Once you have decided to transfer to Tech, but before you begin the actual registration process, you should meet with the ME Chair to confirm the actual quantum of transferable courses and credits. You should also find this information highly useful to check the course equivalencies if you are thinking of attending a summer session at any of these institutions, say, to catch up with some missing course work. Once you have decided to take a course there, you need to consult your advisor and have a 'transient student form' completed to confirm the approval of the transferability of specific course(s). A copy of the transient student form is included in Appendix II for your information.

TRANSFER CREDITS FROM
BLUEFIELD STATE COLLEGE

TO WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

BLUEFIELD STATE COLLEGE				WVU TECH			Cr.Hr
ENGL	101	Composition	3 hrs.	ENGL	101	English Comp I	3
ENGL	102	Research	3 hrs.	ENGL	102	English Comp II	3
CHEM	101	Gen Chemistry	3 hrs.	CHEM	115	Chemistry I	4
CHEM	103	Gen Chemistry Lab	1 hr.				
CHEM	102	Gen Chemistry	3 hrs.	CHEM	116	Chemistry II	4
CHEM	104	Gen Chemistry Lab	1 hr.				
PHYS	211	Gen Physics I	3 hrs.	PHYS	111	General Physics I	4
PHYS	223	Physics I Lab	1 hr.				
PHYS	212	Gen Physics II	3 hrs.	PHYS	112	General Physics II	4
PHYS	224	Physics II Lab	1 hr.				
MATH	220	Calculus I	4 hrs.	MATH	155	Calculus I	4
MATH	230	Calculus II	4 hrs.	MATH	156	Calculus II	4
MATH	240	Calculus III	4 hrs.	MATH	251	Multivariable Calc	4
MATH	310	Diff Equations	3 hrs.	MATH	261	Diff Equations	4*
ENGR	111	Engr Graphics	3 hrs.	DRET	120	Drafting I	2
ENGR	221	Circuits I	4 hrs.	EE	221	Intro Electrical Engr	3
				EE	222	Intro EE Lab	1
ENGR	222	Circuits II	4 hrs.	EE	223	Electrical Circuits	4
ENGR	313	Engr Mechanics I	5 hrs.	MAE	241	Statics	3
ENGR	314	Engr Mechanics II	3 hrs.	MAE	243	Mech of Materials	3
ENGR	315	Engr Economics	3 hrs.	ECON	401	Managerial Econ	3
MEET	201	Mfg Processes	3 hrs.	MAE	240	Mfg Processes	3

*Need to make up 1 hr in another Math course.

NOTE:

1. Students transferring to WVU Tech should consider attending the summer session at Tech immediately following the completion of any of these courses at Bluefield State.

2. All Tech students are required to complete a total of seven (7) General Education Curriculum (GEC) courses. Consult your advisor or see Tech catalog for more details on this topic.

3. Ordinarily courses with 'D' grades are not transferable. Consult your advisor or see Tech catalog for details on this topic.

TRANSFER CREDITS FROM
MARSHALL UNIVERSITY

TO WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

MARSHALL UNIVERISTY				WVU TECH			Cr Hr
ENGL	101	English Comp	3 hrs.	ENGL	101	English Comp I	3
ENGL	102	English Comp	3 hrs.	ENGL	102	English Comp II	3
CHM	211	Prin of Chemistry I	3 hrs.	CHEM	115	Chemistry I	4
CHM	213	Ident of Elements	2 hrs.				
CHM	212	Prin of Chemistry II	3 hrs.	CHEM	116	Chemistry II	4
CHM	214	Quant Asp Chem	2 hr.				
MTH	131	Calculus I	4 hrs.	MATH	155	Calculus I	4
MTH	230	Calculus II	4 hrs.	MATH	156	Calculus II	4
MTH	231	Calculus III	4 hrs.	MATH	251	Multivariable Calc	4
MTH	335	Diff Equations	3 hrs.	MATH	261	Diff Equations	4*
PHY	211	Prin of Physics	4 hrs.	PHYS	111	General Physics I	4
PHY	212	Physics Lab	1 hr.				
PHY	213	Prin of Physics	4 hrs.	PHYS	112	General Physics II	4
PHY	214	Physics Lab	1 hr.				
GLY	200	Physical Geology	3 hrs.	GEOL	312	Geology	3
EM	213	Statics	3 hrs.	MAE	241	Statics	3
EM	214	Dynamics	3 hrs.	MAE	242	Dynamics	3
EM	215	Engr Materials	3 hrs.	MAE	410	Materials Science	4**
EM	216	Mech of Def Bodies	3 hrs.	MAE	243	Mech of Materials	3
EM	218	Fluid Mechanics	3 hrs.	MAE	331	Fluid Mechanics	3
EG	101	Engr Graphics	2 hrs.	DRET	120	Drafting I	2
EE	201	Circuits I	4 hrs.	EE	221	Intro Electrical Engr	3
				EE	222	Intro EE Lab	1
EE	222	Circuits II	4 hrs.	EE	223	Electrical Circuits	4
EG	221	Engineering Econ	3 hrs.	ECON	401	Managerial Econ	3

*Need to make up one hour of sophomore level math course, if transfer is desired

**Need to make up one hour of materials lab, if transfer is desired.

NOTE:

1. Students transferring to WVU Tech should consider attending the summer session at Tech immediately upon completing any of these courses at Marshall University.
2. All Tech students are required to complete a total of seven (7) General Education Curriculum (GEC) courses. Consult your advisor or see the GEC Matrix for details.
3. Ordinarily courses with 'D' grades are not transferable. Consult your advisor or see Tech catalog for specifics on this topic.

TRANSFER CREDITS FROM
WVU at PARKERSBURG

TO WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

MARSHALL UNIVERISTY			WVU TECH			Cr Hr
ENGL 101	English Comp	3 hrs.	ENGL 101	English Comp I		3
ENGL 102	English Comp	3 hrs.	ENGL 102	English Comp II		3
CHEM 115	Fund of Chemistry 1	4 hrs.	CHEM 115	Chemistry I		4
CHEM 116	Fund of Chemistry 2	4	CHEM 116	Chemistry II		4
MATH 151	Calculus 1	4 hrs.	MATH 155	Calculus I		4
MATH 152	Calculus 2	4 hrs.	MATH 156	Calculus II		4
MATH 251	Calculus 3	4 hrs.	MATH 251	Multivariable Calc		4
MATH 252	Calculus 4	4 hrs.	MATH 261	Diff Equations		4
PHYS 115	Gen Physics 1	4 hrs.	PHYS 111	General Physics I		4
PHYS 116	Gen Physics 2	4 hrs.	PHYS 112	General Physics II		4
GEOL 111	Physical Geology	3	GEOL 312	Geology		3
DRAF 102	Drafting Fund	3 hrs.	DRET 120	Drafting I		2
MECH 135	Mfg Process & Mat	3 hrs	MAE 240	Mfg Processes		3
INDT 431	Eng Economics	3 hrs	ECON 401	Managerial Econ		3

NOTE: 1. Students transferring to WVU Tech should consider attending the summer session at Tech immediately upon completing any of these courses at WVU-Parkersburg.

2. All Tech students are required to complete a total of seven (7) General Education Curriculum (GEC) courses. Consult your advisor or see the GEC Matrix for details.

3. Ordinarily courses with ‘D’ grades are not transferable. Consult your advisor or see Tech catalog for specifics on this topic

TRANSFER CREDITS FROM
POTOMAC STATE COLLEGE

TO WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

BLUEFIELD STATE COLLEGE				WVU TECH			Cr.Hr
ENGL	101	Comp & Rhet	3 hrs.	ENGL	101	English Comp I	3
ENGL	102	Comp & Rhet	3 hrs.	ENGL	102	English Comp II	3
CHEM	115	Fund of Chemistry	4 hrs.	CHEM	115	Chemistry I	4
CHEM	116	Fund of Chemistry	4 hrs.	CHEM	116	Chemistry II	4
PHYS	111	General Physics	4 hrs.	PHYS	111	General Physics I	4
PHYS	112	General Physics	4 hrs.	PHYS	112	General Physics II	4
MATH	155	Calculus 1	4 hrs.	MATH	155	Calculus I	4
MATH	156	Calculus 2	4 hrs.	MATH	156	Calculus II	4
MATH	251	Multivariable Calc	4 hrs.	MATH	251	Multivariable Calc	4
MATH	261	Elem Diff Equations	4 hrs.	MATH	261	Diff Equations	4
ENGR	199	Orientation	1 hrs	WVUe	191	1st Year seminar	1
EE	221	Intro to Ele Engr	3 hrs.	EE	221	Intro Electrical Engr	3
EE	222	Intro to EE Lab	1 hrs.	EE	222	Intro EE Lab	1
MAE	241	Statics	3 hrs.	MAE	241	Statics	3
MAE	242	Dynamics	3 hrs.	MAE	242	Dynamics	3
MAE	243	Mech of Materials	3 hrs.	MAE	243	Mech of Materials	3
MAE	331	Fluid Mechanics	3 hrs.	MAE	331	Fluid Mechanics	3
MAE	320	Thermodynamics	3 hrs.	MAE	320	Thermodynamics	3

NOTE:

1. Students transferring to WVU Tech should consider attending the summer session at Tech immediately following the completion of any of these courses at Potomac State College.

2. All Tech students are required to complete a total of seven (7) General Education Curriculum (GEC) courses. Consult your advisor or see Tech catalog for more details on this topic.

3. Ordinarily courses with 'D' grades are not transferable. Consult your advisor or see Tech catalog for details on this topic.

TRANSFER CREDITS FROM
SHEPHERD UNIVERSITY

TO WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

BLUEFIELD STATE COLLEGE			WVU TECH			Cr.Hr
ENGL 101	Composition 1	3 hrs.	ENGL 101	English Comp I		3
ENGL 102	Composition 2	3 hrs.	ENGL 102	English Comp II		3
CHEM 207	Gen Chemistry	3 hrs.	CHEM 115	Chemistry I		4
CHEM 207L	Gen Chemistry Lab	1 hr.				
CHEM 209	Gen Chemistry	3 hrs.	CHEM 116	Chemistry II		4
CHEM 209L	Gen Chemistry Lab	1 hr.				
PHYS 221	Gen Physics I	3 hrs.	PHYS 111	General Physics I		4
PHYS 221L	Physics I Lab	1 hr.				
PHYS 222	Gen Physics II	3 hrs.	PHYS 112	General Physics II		4
PHYS 224L	Physics II Lab	1 hr.				
PHYS 301	Geology	3 hrs	GEOL 312	Geology		3
MATH 207	Calculus I	4 hrs.	MATH 155	Calculus I		4
MATH 208	Calculus II	4 hrs.	MATH 156	Calculus II		4
MATH 309	Calculus III	4 hrs.	MATH 251	Multivariable Calc		4
MATH 310	Diff Equations	3 hrs.	MATH 261	Diff Equations		4*
ENGR 101	Engr Graphics	3 hrs.	DRET 120	Drafting I		2
			WVUe 191	1st Yr Seminar		1
ENGR 102	Engr Computer Appl	3	ENGR 111	Software Tools		3
ENGR 221	Circuits I	3 hrs.	EE 221	Intro Electrical Engr		3
ENGR 222	Circuits I Lab	1	EE 222	Intro EE Lab		1
ENGR 224	Circuits II	3 hrs.	EE 223	Electrical Circuits		3
ENGR 225	Circuits II Lab	1	EE 224	Ele Circuits Lab		1
ENGR 241	Statics	3 hrs.	MAE 241	Statics		3
ENGR 242	Dynamics	3 hrs.	MAE 242	Dynamics		3
ENGR 243	Mech of Materials	3 hrs.	MAE 243	Mech of Materials		3
MEET 301	Engr Thermo	3 hrs.	MAE 320	Thermodynamics		3

*Need to make up 1 hr in another sophomore level Math course.

NOTE:

1. Students transferring to WVU Tech should consider attending the summer session at Tech immediately following the completion of any of these courses at Shepherd University.
2. All Tech students are required to complete a total of seven (7) General Education Curriculum (GEC) courses. Consult your advisor or see Tech catalog for more details on this topic.
3. Ordinarily courses with 'D' grades are not transferable. Consult your advisor or see Tech catalog for details on this topic.

TRANSFER CREDITS FROM
WEST VIRGINIA STATE UNIVERSITY

TO WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

W V STATE UNIVERSITY				WVU TECH			Cr.Hr
ENG	101	Eff Communication	3 hrs.	ENGL	101	English Comp I	3
ENG	102	Eff Communication	3 hrs.	ENGL	102	English Comp II	3
CHEM	105	College Chemistry	3 hrs.	CHEM	115	Chemistry I	4
CHEM	107	Chemistry Lab	1 hr.				
CHEM	106	College Chemistry	3 hrs.	CHEM	116	Chemistry II	4
CHEM	108	Quant Analysis	1 hr.				
PHYS	231	Physics for Engrs	4 hrs.	PHYS	111	General Physics I	4
PHYS	232	Physics for Engrs	4 hrs.	PHYS	112	General Physics II	4
MATH	206	Anal Geo & Calc I	4 hrs.	MATH	155	Calculus I	4
MATH	207	Anal Geo & Calc II	4 hrs.	MATH	156	Calculus II	4
MATH	208	Anal Geo & Calc III	4 hrs.	MATH	251	Multivariable Calc	4
MATH	402	Diff Equations	3 hrs.	MATH	261	Diff Equations	4*
IT	111	Mech Drafting	3 hrs.	DRET	120	Drafting I	2
IT	225	Statics	3 hrs.	MAE	241	Statics	3
IT	250	Intro Electrical Engr	4 hrs	EE	221	Intro Electrical Engr	3
				EE	222	Intro EE Lab	1

*Need to make up 1 hr in another Math course.

NOTE:

1. Students transferring to WVU Tech should consider attending the summer session at Tech immediately following the completion of any of these courses at WV State University.

2. All Tech students are required to complete a total of seven (7) General Education Curriculum (GEC) courses. Consult your advisor or see Tech catalog for more details on this topic.

3. Ordinarily courses with 'D' grades are not transferable. Consult your advisor or see Tech catalog for details on this topic.

COURSE EQUIVALENCY (FIRST TWO YEARS)--Summary

WVU COURSE	MARSHALL UNIVERISTY	POTOMAC STATE COLLEGE	SHPHERD UNIVERSITY	WVU PARKERSBURG	WVU TECH
CHEM 115	CHEM 211, 217	CHEM 115	CHEM 207, 207L	CHEM 115	CHEM 115
CHEM 116	CHEM 212, 218	CHEM 116	CHEM 209, 209L	CHEM 106	CHEM 116
CHEM 233	CHM 355	CHEM 233	CHEM 315	CHEM 233	CHEM 233
CHEM 235	CHM 361	CHEM 235	CHEM 315L	CHEM 235	CHEM 235
CHE 201					CHEE 201
CHE 202					CHEE 202
CHE 230					CHEE 230
CE 205					CE 241 +CE 495 (WVU)
CPE 271	ENGR 204	CPE 271		ELEC 222	CPE 271
CPE 272				ELEC 223	CPE 271 Lab
CPE 310					EE 420
CS 110		CS 101	CS 312		CS 121
CS 111					CS 221
CS 310					CS 323
ENGL 101	ENG 101	ENGL 101	ENGL 101	ENGL 101	ENGL 101
ENGL 102	ENG 102 OR 201H	ENGL 102	ENGL 102	ENGL 102	ENGL 102
ENGR 101 ENGR 199	ENGR 101, 107	ENGR 199	ENGR 101		WVUe 191
ENGR 102	ENGR 111		ENGR 102	CS 121	CS 111
EE 221	ENGR 201	EE 221	ENGR 221		EE 221
EE 222	ENGR 201	EE 222	ENGR 222		EE 222
EE 223	ENGR 202	EE 223	ENGR 224		EE 223
EE 224	ENGR 202	EE 224	ENGR 225		EE 223 Lab
EE 251					EE 271
EE 252					EE 271 Lab
IMSE 213					MATH 448
	EM 215				
IMSE 220					---
IMSE 377	ENGR 221			INDT 431	ECON 401
MAE 211					MAE 311
MAE 215					---
MAE 241	ENGR 213	MAE 241	ENGR 241		MAE 241
MAE 242	ENGR 214	MAE 242	ENGR 242		MAE 242
MAE 243	ENGR 216	MAE 243	ENGR 243		MAE 243
MAE 244					
MAE 320	ENGR 219	MAE 320	ENGR 301		MAE 320

GEF COURSES & GEF # - MATRIX-Select 1 course from each column for a total of 9 Credits

COURSE #: COURSE TITLE	F5: Human Inquiry & the Past	F6:The Arts & Creativity	F7:Global Studies & Diversity
ARHS 101:Landmarks of World Art		X	
ENGL 131: Poetry & Drama		X	
ENGL 132: Short Story and Novel		X	
ENGL 212: Creative Writing: Fiction		X	
ENGL 225: Western World Literature		X	
ENGL 232: Poetry		X	
ENGL 233:The Short Story		X	
ENGL 234: Drama		X	
ENGL 235: Novel		X	
ENGL 236: The Bible as Literature		X	
ENGL 241: American Literature 1		X	
ENGL 242: American Literature 2		X	
ENGL 252: Appalachian Fiction		X	
ENGL 258: Popular American Culture		X	
ENGL 261: British Literature 1		X	
ENGL 262: British Literature 2		X	
ENGL 263: Shakespeare 1		X	
ENGL 272: Modern Literature		X	
GEOG 102: World Regions			X
GEOG 108: Human Geography			X
HIST 106: East Asia: An Introduction			X
HIST 152: Growth of the American Nation to 1865	X		
HIST 153: Making of Modern America: 1865 to the Present	X		
HIST 179: World History to 1500			X
HIST 180: World History Since 1500			X
HIST 203: Introduction to Medieval Europe	X		
HIST 207: Revolutionary Europe	X		
HIST 209: Twentieth Century Europe	X		
HIST 218: History of Russia: 1900-Present	X		
HIST 261: Recent America: The United States Since 1918	X		
HIST 277: Revolutions-Science/Technology (Tech Campus)	X		
MUSC 111: Introduction to Music		X	
MUSC 115: Introduction to History of Jazz		X	
PHIL 140: Historical Introduction to Philosophy	X		
PHIL 170: Introduction to Critical Thinking	X		
POLS 103: Global Political Issues			X
POLS 260: Introduction to International Relations			X
PSYC 232: Sex Roles and Behavior			X
PSYC 281: Introduction to Abnormal Psychology			X
SM 275: Olympic Games			X
SM 375: Sport in the Global Market			X
SOCA 105: Introduction to Anthropology			X
SOCA 207: Social Problems in Contemporary America			X
SOCA 235: Race and Ethnic Relations			X
SPAN 101: Elementary Spanish 1			X
SPAN 102: Elementary Spanish 2			X
SPAN 203: Intermediate Spanish 1			X
SPAN 204: Intermediate Spanish 2			X
SPAN 331: Early Spanish American Literature		X	
WGST 225: Women in Appalachia			X

***NOTE*: GEF # F4 (ECON 401: Managerial Economics) is not listed since it is a REQUIRED course in the Mechanical Engineering curriculum at WVU Tech.**

ADMISSION TO WVU TECH

GENERAL REQUIREMENTS FOR ADMISSION OF HIGH SCHOOL GRADUATES

To receive consideration for admission to four-year baccalaureate degree programs at the West Virginia University Institute of Technology applicants must have successfully completed the following high school units.

4 units of English
3 units of Social Studies, including US History
1 unit of Art
2 units of foreign languages, two units of the same language
4 units of Mathematics (Algebra I & higher)
3 units of Science (all must include laboratory component)

Leonard C. Nelson College of Engineering & Sciences (Resident/Non-Resident)

In addition to the general requirements for admission, an applicant must also obtain an ACT math score of at least 19 or a SAT math score of 460 in order to be admitted to any program in the Leonard C. Nelson College of Engineering and Sciences. (Refer to Section 3 above, for detailed information on the admission requirements specifically applicable to the Mechanical Engineering program at WVU tech.)

ADMISSION TO SPECIFIC ACADEMIC PROGRAMS

Admission to the college does not necessarily admit a student to all programs. Prerequisites are required for admission to the following degree programs:

A. CHEMISTRY AND MATHEMATICS: two units of algebra, one unit of plane geometry, and one unit of advanced math including at least one-half unit of 'trigonometry'.

B. ENGINEERING TECHNOLOGY: The Engineering Technology programs are open admission programs. It is recommended that students take at least one unit of algebra, one unit of plane geometry, and one-half unit of trigonometry. Prospective students are evaluated to determine the appropriate math and English entry levels. Students who lack sufficient background in these topics to be successful in the prescribed college-level courses will be given an opportunity to enroll in pre-technology mathematics courses.

AMERICAN COLLEGE TEST (ACT)

Entering freshmen at WVU Tech must take the American College Test (ACT) or the Scholastic Aptitude Test (SAT) and have scores sent directly to Tech during the admission process and prior to registration. Placement in English and Mathematics courses is based on standardized test scores, placement examinations, and academic history. ACT and SAT are given at designated centers throughout the United States.

Information bulletins and registration forms for the ACT and the SAT are available in the high school or may be obtained by writing to:

(a) American College Testing Program, Box 168, Iowa City, Iowa 52240.
(b) SAT - Educational Testing Service, Princeton, NJ 08541.

ADMISSION OF TRANSFER STUDENTS

Transfer students are accepted for each semester or summer term. One month prior to a registration period, the student must be accepted for admission. Documents required are as follows:

1. Application for admission
2. Official transcript from each college attended
3. ACT/SAT test scores sent directly from ACT or SAT
4. If the student has earned less than 30 semester hours, an official copy of the high school transcript will be required.

Leonard C. Nelson College of Engineering & Sciences

Transfer students will be considered by the College of Engineering & Sciences Admissions Committee on a space available basis if they meet the following criteria:

1. Have a minimum grade point average of 2.00 overall and in professional courses (math, physics, chemistry and engineering).
2. Have completed MATH-126: *College Algebra* and MATH-128: *Trigonometry* or equivalent with a grade of C or better.
3. Have completed at least 30 hours of college level work. Applicants with less than 30 hours can be considered under the policy governing high school graduates.

Students who wish to pursue a career in engineering or computer science but who do not meet the above criteria can be admitted to the Pre-engineering Program for one year while becoming eligible.

EVALUATION OF TRANSFER CREDITS

All credits, grades and quality points shall be entered on the permanent record card of transfer students.

Subject to 'C' requirements in some Tech courses; D grades will be accepted from all accredited four year and community colleges that have transfer agreements with WVU Tech. Students transferring from non-accredited colleges will receive credit only for those courses in which a grade of C or higher has been earned. In sequence courses, however, a D grade will be accepted if followed by a grade of C or higher.

Up to seventy-two semester hours of college-parallel courses will be accepted from accredited junior or community colleges or those under the West Virginia system of higher education. If the college is not regionally accredited but has approved status, only 64 hours will be accepted.

Evaluation of transfer credits should be approved by the Registrar.

The transfer student must fulfill the graduation requirements of the college, including 40 hours of 300-400 level courses. Credits earned at a junior or community college may not be used to satisfy this requirement even though transfer credits are evaluated as comparable to 300 and 400 level courses at WVU Tech. Students with less than 30 transfer credits must take the orientation course: *1st Year Seminar* (WVUe 191.)

Formal transfer agreements with other institutions have been developed for the plus-two baccalaureate degree engineering technology and industrial technology programs. Over seventy transfer guides identify transferability on a course-by-course basis for various associate degree programs at these institutions. The institutions for which transfer agreements are in place include:
Belmont Technical College (OH)
BridgeValley Community & Technical College (WV)
Dabney S. Lancaster Community College (VA)
Hocking Technical College (OH)
Jefferson Community College (OH)
Marshall University and Mountain State Community & Technical College (WV)
New River Community College (VA)
Southern West Virginia Community & Technical College (WV)
Southwest Virginia Community College (VA)
Washington State Community College (OH)
West Virginia Northern Community College (WV)
West Virginia State University and Kanawha Valley Community & Technical College (WV)
West Virginia University-Parkersburg (WV).

ACCESS (Attaining College Credits and Experience while in Secondary School)

High school juniors and senior may earn up to 12 semester hours toward a degree at WVU Tech prior to high school graduation. To be eligible for ACCESS, the high school junior or senior must:
(1) Complete an application for ACCESS admission
(2) Submit a high school transcript (and ACT or SAT scores, where necessary)
(3) Have completed the sophomore year of high school
(4) Have earned a minimum average of B (3.00) for all high school courses attempted
(5) Be recommended by the school guidance counselor or principal of the high school attended.

Students selected for ACCESS admission may enroll for any freshman level class as long as the student has a sufficient academic background. Juniors may enroll during the summer session. Seniors may enroll during the regular school year, but their classes will be limited to those that do not interfere with regularly scheduled high school subjects. Students enrolled under this program will receive grades and quality points as earned. Transcripts will be forwarded to any other college upon request of the student; however, the acceptance of these credits toward a degree will be determined by the individual college. Cost of tuition and fees will be the same as those for regular college students.

ADVANCED ASMISSION OF HIGH SCHOOL SENIORS (Full-time)

High school students who wish to spend their senior year at WVU Tech may apply for advanced admission as a full-time student. To be eligible for this program, a student must:
(1) Complete an application for advanced admission as a full-time student
(2) Submit a high school transcript and ACT or SAT test scores
(3) Submit a letter of permission from your parent(s) or guardian(s)
(4) Submit a letter of recommendation from the guidance counselor or principal of the high school attended

(5) Have completed all requirements for graduation from high school except senior English
(6) Have earned a minimum average of 3.5 GPA or higher and a 26 ACT composite or 1170 on the SAT.

Accepted students are admitted as full-time students with all the rights and privileges offered other students. Cost of tuition and fees will be the same as those for all other full-time students.

OTHER OPPORTUNITIES

College credit may be obtained by students while attending high school through three options:

Dual-credit courses
Articulation agreements
Tech-Prep EDGE courses.

Agreements are in place with high schools throughout the region. For more information, contact your high school counselor or Tech's Office of Admissions.

ADMISSION OF INTERNATIONAL STUDENTS

International students are urged to visit the WVU Tech web page for international students at international.wvutech.edu. The application process and the scholarship program, that WVU Tech provides to academically qualified international students, are explained in depth. Usually applying for undergraduate admission must have their completed applications on file at least four months prior to their intended date of enrollment. Inquiries and application should be addressed to:

Director of Admissions and Recruitment
Box 80 Old Main,
WVU Tech, Montgomery, West Virginia 25136 USA

Students applying should have completed the equivalent of a secondary education with higher than average grades and have their courses evaluated by an international company such as World Education Service (WES). The "Test of English as a Foreign Language-TOEFL" is required for all students with a native language other than English. A score of 61 on the internet-based TOEF or a minimum IELTS score of 6.0 is usually considered adequate for admission. Applications for the TOEFL should be addressed to:

TOEFL, Educational Test Service, Princeton, New Jersey 08540 USA

All documents received by the college in connection with such applications for admission become the property of the college. Under no circumstance will they be duplicated, returned to the applicant, or forwarded to any agency or other college or university. Admission documents of applicants who do not enroll in the college may be destroyed after one year.

Because WVU Tech offers no elementary studies in English as a foreign language, only students with the above-listed English proficiency in TOEFL or IELTS are admitted. In addition, to be admitted, an international student must furnish a certificate of finance showing the ability to finance the entire cost of an education at WVU Tech. Refer to the Institutional Catalog or contact the Dean of Students for information on the current expenses. Refer to the current Institutional Catalog for additional information.

AUDITING COURSES

Any student wishing to audit a class must notify the Registrar of that intention during regular or late registration. No grades or credit are given; nor is the student required to take examinations.

READMISSION OF STUDENTS IN GOOD STANDING

Students who left WVU Tech in good standing and who return to college after an absence of one or more terms, excluding summer, must apply for readmission.

READMISSION OF SUSPENDED STUDENTS

First-level suspension is assigned when the student's GPA falls below 2.00 for two consecutive semesters. The student on a first-level suspension may request a waiver from the Dean of the college in question by way of a written request and agreeing to an academic load not to exceed 14 credit hours. In cases when the waiver request is not approved, first-level suspension requires that the student sit out for a minimum of one semester before reapplying for admission to WVU Tech.

Second-level suspension is assigned when the student returning from a first–level suspension fails to earn a 2.0 GPA in the next attempted semester. The second-level suspension cannot be waived and requires that the student sit out for at least one year before reapplying

Third-level suspension is assigned when the student returning from second-level suspension fails to earn a 2.0 GPA in the next attempted semester. Third-level suspension cannot be waived and requires the student to sit out for at least four years before reapplying.

The student suspended at any of levels is entitled to petition the Committee on Classification and Grades of the Faculty Assembly for readmission. The Committee will evaluate the academic ability, character, circumstances, motivation, and any evidence presented by the student of improved circumstances or conditions that would support the application for readmission. If the committee approves the petition, the student would present evidence of a change in circumstances or conditions which will support the application for readmission. If the Committee approves readmission, the student will return on academic probation and under whatever special circumstances the Committee may deem advisable. The student would thus not have to reapply.

It is important to note that readmission to the college does not automatically mean readmission to a previous program.

THE SPECIAL STUDENT

An individual who wishes to take courses, but not for a degree or certificate, is classified as a 'Special Student' and may register for part-time studies, taking fewer than 12 hours of course credit in any semester. A special student who attempts equal to or more
than 12 credit hours must apply for admission as a degree candidate by filing full credentials with the Office of Admissions. An overall grade point average of 2.00 or higher is required

for admission. The special student may also enroll as an auditor. Auditors take no examinations and receive no grades or credits for courses audited. A student may not request credit by examination for an audited course.

THE TRANSIENT STUDENT

A student wishing to take courses to be transferred from/to another college may do so, but must present, at registration, an official transient student permit from the college accepting the course credit. This permit must include the number of semester hours which the student is permitted to complete.

A WVU Tech student who wishes to enroll at another college as a transient student must have prior approval of the appropriate advisor, dean, and the Registrar. The required form (called the Transient Form) is available in the Office of the Registrar and Records.

THE VETERAN STUDENT

WVU Tech is approved by the WV Higher Education Policy Commission's State Approving Agency for enrollment of veterans and dependents of deceased or 100% disabled veterans eligible for education benefits under current regulations. Those serving in the Army or Air National Guard or those on Active Duty or serving in a Reserve Unit may also qualify for educational assistance. The Veterans Affairs Office serves as the official institutional contact point for military and veterans' programs and services.
New students who have not used their VA educational benefits must apply to the U.S. Department of Veterans Affairs and/or their National Guard or Reserve Unit to establish their eligibility for educational benefits. Those receiving funding through the U.S.
Department of Veterans Affairs must submit a Certificate of Eligibility and those funded under WV National Guard programs must submit a Notice of Basic Eligibility to the Veterans Affairs Office in order to be certified for educational benefits. Transfer students who have used educational benefits at another school must contact the Veterans Affairs Office and submit a Change of Program or Place of Training Form to receive benefits. All transfer credits must be reported to the Veterans Affairs Office and official transcripts must be submitted to the Registrar's Office. The student must also officially apply for WVU Tech admission and select an approved academic program before being certified to receive educational benefits. These guidelines also apply to students who are only enrolled in Extended Education courses. Continuing students need only verify their continued enrollment with the Veterans Affairs Office to continue their educational benefits. It is the student's responsibility to ensure that all tuition and fees are paid. Educational benefits checks should start arriving within 6 to 8 weeks after certification.

Any changes in approved course schedules including adding, dropping, and withdrawing from a course or courses MUST receive prior approval from the Veterans Affairs Office. Failure to obtain prior approval may jeopardize continued funding and may result in a significant overpayment of educational benefits that must be repaid. Students withdrawing from the institution must also contact the Veterans Affairs Office to avoid any overpayment. Any overpayment of education benefits will be calculated within the pay period in which the change occurred. Changes of academic program major MUST receive prior approval from the Veterans Affairs Office and U.S. Department of Veterans Affairs or appropriate Guard or Reserve Unit.

Students receiving educational benefits are expected to make satisfactory progress in attaining their educational goals and to attend their classes on a regular basis. The Veterans Affairs Office will closely monitor academic progress and class attendance and any students not following these requirements may lose their benefits. All forms necessary for educational benefits are available in the Veterans Affairs Office. – Phone: 304-442-3853 – FAX:304-442-3823 – E-mail: Tech-Veterans- Affairs@mail.wvu.edu.

REGISTRATION

A registration period is provided for each semester and summer term as specified in the academic calendar. No registration is considered complete until tuition and fees are paid in full. The class schedule may be found on the internet www.wvutech.edu.
Detailed instructions for registration are distributed prior to the dates specified. Students are expected to register on the dates specified. An exception may be granted under rare circumstances and then only when there is evidence that the student has a reasonable opportunity to complete successfully all course work. The president or a designee must approve the exception with the evidence supporting the decision documented and held on file. The first two class meetings shall be considered the regular registration period for evening, Saturday, off-campus, extension and other special classes. In addition, a late registration period may be established which shall not exceed the third and fourth class meetings. A late registration fee shall be imposed on all late registrants.

COUNSELING SERVICES

Various counseling services are available through numerous facilities on campus that address student needs through personal counseling, academic counseling for students experiencing difficulty in meeting the demands of college life, and career counseling, as well as career testing, and educational outreach programs which assist in preventing any problems that may interfere with personal growth and development, such as for instance: alcohol abuse, substance abuse, eating disorders, stress, relationship issues, sexual assault/abuse, date rape, poor time management skills, etc. The average college student experiences much stress and undergoes many changes as he or she grows and develops. This developmental process involves issues which include, but are not limited to, self-image, personal and societal values, relationships, decision-making skills, cultural diversity, sexual preferences, independence, time and stress management skills as well as the pressure to succeed. Many students experience homesickness, loneliness, anxiety, career concerns, and academic adjustments. Oftentimes, previously undetected learning disabilities may manifest once the student enters college.

Individual and group counseling sessions are available through the Counseling Office. Students receive assistance in addressing their issues and/or concerns. Workshops are offered regularly on topics such as Stress Management, Time Management, Study Skills, Assertiveness Skills, Healthy Relationships, Clear Communication Techniques, and Conflict Resolution. Diagnostic and career testing are also available.

Counseling service is also available to assist students with special concerns such as thoughts of suicide, alcohol abuse, substance abuse, eating disorders, depression, co-dependence, divorce learning disabilities, detection and comprehension of personal learning styles etc. Various support groups are available including Alcoholics Anonymous, Narcotics Anonymous, and Eating Disorders. Although students are encouraged to deal with any concern before it

reaches a crisis stage, the counseling staff is trained in crisis intervention. For additional information and guidance contact the Dean of Students 304-442-3158.

Some of the organizations that are involved with Student Life and Services are: *Student Activities Office* (325 Old Main, 304-442-3183)), *Student Government Association* (SGA), *Student Health Services*, *Accessibility Services* (304-293-5600), *Career Services and Cooperative Education* (326 Old Main, 304-442-3185), *Student Support Services* (304 Old Main, 304-442-3477), *Office of Campus Life-List of Organizations* (304-442-3183).

STUDENT SUCCESS CENTER (SSC)

Opened in April 2013, the Student Success Center (SSC), is a powerful tool in every WVU Tech student's academic success toolbox. The SSC provided academic advising for first-year students and free peer tutoring and skill building workshops for all WVU Tech students. The SSC also plans and executes new student orientation, a multi-day program designed to assist new students to transition smoothly to the WVU Tech community. Among the most popular destination on campus, the SSC proudly hosted more than 12,000 student visits during the first year of operation. The SSC is dedicated to providing programs and advice to students from orientation to graduation. (304-442-3477)

IMPORTANT NOTE: Students, especially those who are new to WVU Tech, are strongly urged to access and review the current information available on line at www.wvutech.edu.

APPENDIX II

Some Useful Forms

Institute of Technology
West Virginia University

S.T.A.R.

STAR Course Registration

Student ID: |___|___|___|-|___|___|___|-|___|___|___| **Term:** _____
Semester Year

Name: |___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|
Last

|___|___|___|___|___|___|___|___|___|___|___|___|___| |___|___|___|___|___|___|___|___|___|___|___|___|___|
First Middle

Major: _____ **Classification:** |___|___| Ex: FR, SO

CRN	Subject	Course Number	Section Number	VR CR Hours	Grd Opt 2=Normal 3=P/F 1=Audit	M	T	W	R	F	S	Time	Course Approval Course requires departmental approval. May not register through STAR WEB.
ADDS/NEW													
ALTERNATIVE SELECTIONS													

I acknowledge that I am responsible for my student class schedule. I understand that if any changes are needed, it is my responsibility to seek out alternative courses. I am responsible for ensuring that at all times my enrollment has sufficient credit hours and appropriate courses to satisfy requirements for athletic eligibility, financial aid and scholarships (e.g. Promise), insurance coverage, veterans or other benefit that is dependent upon academic status. I am responsible for checking my MIX account regularly and keeping my contact information up-to-date in STAR.

Student Signature: _____ **Date:** _____

Advisor Approval: _____ **Date:** _____

Dean's approval
Required for Adds after Late Add/Drop) _____ **Date:** _____

Institute of Technology
West Virginia University.

S.T.A.R.

STAR Course Drop Request

Student ID: |___|___|___|-|___|___|___|-|___|___|___| **Term:** |___|___|___|___|___|___|

Term: ex. 200908
01.....Spring
05.....Summer
08.....Fall

Name: |___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|
Last

|___|___|___|___|___|___|___|___|___|___|___|___|___|___| |___|___|___|___|___|___|___|___|___|
First Middle

Major: ______________________________ **Classification:** |___|___| Ex: FR, SO

CRN	Subject	Course Number	Section Number	VR CR Hours	Grd Opt 2=Normal 3=P/F 1=Audit	M	T	W	R	F	S	Time	Course Approval Course requires departmental approval. May not register through STAR WEB.
DROPS													

I acknowledge that I am responsible for my student class schedule. I understand that if any changes are needed, it is my responsibility to seek out alternative courses. I am responsible for ensuring that at all times my enrollment has sufficient credit hours and appropriate courses to satisfy requirements for athletic eligibility, financial aid and scholarships (e.g. Promise), insurance coverage, veterans or other benefit that is dependent upon academic status. I am responsible for checking my MIX account regularly and keeping my contact information up-to-date in STAR.

Student Signature:________________________________ **Date:**______________

Advisor Approval:________________________________ **Date:**______________

Last Updated: 8-Mar-2010

Institute of Technology
West Virginia University

S.T.A.R.

Course Registration Approval Form

Student ID: |__|__|__|-|__|__|__|-|__|__|__| **Term:** |__|__|__|__|__|__|

Term: ex. 200908
2009...Year
01 ....Spring
05 ....Summer
08 ....Fall

Name: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|
Last

|__|__|__|__|__|__|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|__|
First Middle

CRN: |__|__|__|__|__| **Subj. Code:** |__|__|__|__| **Crse Num:** |__|__|__|__| **Sect Num:** |__|__|__| **CR Hrs:** |__|__|

Course Title:

|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

______________________________ ______________________________
Student Signature (Required) **Date**

Advisor Signature Required

☐ Time Conflict ☐ Cr Hr Overload____ ☐ Multiple Section

Department Signature Required

☐ Permit Required Course ☐ Exceed Max Enrollment ☐ Other______

Course Override:

The student named above may enroll for the course. The student has been informed that adding this course may result in reassessment of fees.

______________________ ______________________ __________
Authorizing Signature Department/College Date

______________________ __________
Dean Signature (Required after Late Add/Drop) Date

19-Jan-2010

Institute of Technology
West Virginia University

nj

Veteran's Enrollment Certification

S.T.A.R.

Student ID: |___|___|___|-|___|___|___|-|___|___|___| **Term:** ______________________________

Name: |___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|___|
Last

|___|___|___|___|___|___|___|___|___|___|___|___|___|___| |___|___|___|___|___|___|___|___|___|
First Middle

Section for Advisor Verification:

Major: ____________________________________ **Advising Term Pin:** |___|___|___|___|___|___|

CRN	SUBJ	###	T##	Credit Hours	Grade Mode*	Advisor Approval**	TC	CHO	Department Approval**	Apr	CS	PR
The following courses count towards the degree or minor and are not repeats for credit:												
The following courses **do not** count towards the degree or minor or are repeated for the purpose of improving the GPA:												

***2=Normal, 3=P/F, 1=Audit, **Sign and initial appropriate box for advisor approval of Time Conflict or Credit Hour Overload or box for department approval for Approval, Closed Section, or Pre-requisite.**

The above courses apply towards the student's programs and are not repeated or do not apply as designated in the appropriate sections above.

Advisor signature:____ **Date:**__________________

I acknowledge that I am responsible for entering my student class schedule. I understand that if any changes are needed, it is recommended that I consult with my advisor prior to making any changes. I am responsible for any course selections I make independently. I am responsible for ensuring that at all times my enrollment has sufficient credit hours and appropriate courses to satisfy requirements for athletic eligibility, financial aid and scholarships (e.g. Promise), insurance coverage, veterans or other benefit that is dependent upon academic status. I am responsible for checking my MIX account regularly and keeping my contact information up-to-date in STAR.

Student Signature:____ **Date:**__________________

For Office Use Only: Certification Date:

Last Updated: 16-Mar-2011

Institute of Technology
West Virginia University.

DUAL CAMPUS STUDENT REQUEST FORM

Name: _____

WVU ID: _____ **Current Major:** _____

Local Address: _____

_____

Phone Number: _____

The above named ☐ **WVU-Morgantown** / ☐ **WVU Potomac State College** student requests permission to enroll for the following courses at WVU Tech during the:

☐ Fall ☐ Spring ☐ Summer of 20_____ term

Tech Courses

CRN	Course Title	Course Number	Credit Hours	Online Course (Y/N)

Justification for requesting to take courses through Tech:

_____

_____

_____ _____

Student's Signature **Date** **Your Advisor's Signature** **Date**

Return form to: **Registrar's Office**
405 Fayette Pike
Montgomery WV 25136

304.442.3097 (fax)

Please note: Separate tuition and fees will be assessed for courses on each campus.

For Tech office use only:

☐ Approved by: _____ Date: _____

☐ Registration override completed by: _____ Date: _____

☐ Disapproved by: _____ Date: _____

READ CAREFULLY

USE BALLPOINT PEN OR TYPEWRITER

WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

OFFICE OF THE REGISTRAR
MONTGOMERY, WEST VIRGINIA 25136

TRANSIENT APPLICATION AND APPROVAL TO ENROLL FOR COURSES AT ANOTHER INSTITUTION

NAME _____ STUDENT NO. _____

HOME ADDRESS: _____
Street or Box Number City State Zip

MAJOR: _____ CLASSIFICATION: FR SOPH JR SR
(circle one)

The following courses have been approved for this student to be taken at:

_____ _____
Name of Institution Mailing Address

during the _____
Semester Year

West Virginia University Institute of Technology

Subt.	Course No.	Course	Credit

Comparable Course at Approved Institution

Subt.	Course No.	Course	Credit

APPROVED:

_____ _____
ACADEMIC ADVISOR'S SIGNATURE

_____ _____
DEAN'S SIGNATURE

NOTE: Students in bachelor degree programs (4 yr.) must complete 30 of their last 36 hours in residence. Students in associate degree programs (2 yr.) must complege 15 of their last 21 hours in residence.

Quality Points earned at another institution may not be used to remove quality point deficiencies incurred at WVU Tech.

Upon completion of these courses, I will have a transcript mailed to the Records Office, West Virginia University Institute of Technology, Montgomery, WV 25136. If candidate for graduation, transcript must be received no later than ten (10) calendar days after Commencement date. ***This is your responsibility.***

Date: _____ Student Signature: _____

This form is not valid unless it contains approving officers original signature and impress seal.

SEAL _____
Approving Officer of Registrar's Office

(Return Completed Form to Office of Registrar's Office, Room 210, Old Main)

White Copy: Transient Institution Yellow Copy: Registrar's Office Pink Copy: Students Copy

Institute of Technology
West Virginia University.

S.T.A.R.

ACADEMIC STATUS UPDATE FOR GENERAL STUDENT

(CAN ALSO BE USED TO CHANGE MAJOR)

Student ID Number

Effective Term
Example: 200908
01.....Spring 05.....Summer 08.....Fall

Last Name

First Name

Middle Name

Current Status *Enter appropriate Codes*	New Status *Enter appropriate Codes*
College Code TS = Bus, Hum, Soc Sci TE = Engr and Sciences	College Code TS = Bus, Hum, Soc Sci TE = Engr and Sciences
Admit Type ☐ Regular ☐ Non-Degree	**Admit Type** ☐ Regular ☐ Non-Degree
Major Code	Major Code
	Degree Code Example: BS-AGR (BS in Agriculture)
	DD MON YEAR Expected Date of Graduation
	New Advisor ID Number
	PRINT Advisor's Name (Last) (First)

Initiating Signature/Advisor Date

Completed form must be submitted
to Registrar's Office. Fax to 304-442-3097.
Make a copy for your records.

Accept/Reject Signature/Dept. Chair Date

☐ **ACCEPT**
(submit to Registrar's Office)

☐ **REJECT**
(return to initiating department)

Comments:

PROCEDURES FOR COMPLETING THIS FORM:

INITIATING DEPARTMENT:(New Advisor)
Complete the following items:
- Student Number
- Term (term new status is to be effective).
- Name (Last, First, M.)

Current Status
- Mark appropriate admit type of student
  Check Regular or Non-Degree.
  NOTE: If not sure of admit type review the STAR student system - General Student Form (SGASTDN).
- Enter current college code
- Enter current major code

New Status
- Mark desired admit type of student
- Enter college code
- Enter major code

Sign the form, make a copy for your records if desired, and forward to the department the student wishes to transfer.

RECEIVING DEPARTMENT:(Department Chair)
Review form to determine if student is accepted or rejected and mark the appropriate box.
- If student is accepted, complete the Degree Code, Expected Date of Graduation, and New Advisor information.
- Sign the form, make a copy for your records if desired, and forward to Registrar's Office.
- If student is rejected, sign the form and forward to initiating department.
- Add comments if appropriate.

THIS FORM MAY BE USED TO:

Change Majors - major changes can be made as long as it does not require the student to reapply.
Update Admit Type - the following admit types can be updated:
- Regular

This form cannot be used to update admit types of 05 (Transient), 09 (Undergraduate Non-Degree), 65 (Senior Citizen), or 02 (High School Special).

The following majors cannot be updated using this form: 001T, 003T, 004T, 005T, and 006T.

Institute of Technology
West Virginia University

Change of Major Form

I have been admitted to West Virginia University Institute of Technology and would like to change my major field of study

_____ ***change to*** _____

Current Major Desired Major

___Add Second Major_____

___Add Minor_____

Name: _____ _____ _____

Last First M

WVU Student ID Number: _____ Birth Date _____

MM/DD/YR

Mailing Address: _____

_____

_____

Email Address: _____

Telephone Number: (___)_____

****

Please print this form, complete, and fax or mail to:
Fax: (304) 442-3097
Attn: WVU Tech Office of the Registrar

You may also complete the form online, attach it to an email and send to:
Tech-Registar-Records@mail.wvu.edu.

_____ _____

Signature (if mailing or faxing) Date

_____ _____

New Advisor Signature Date

Institute *of* Technology
West Virginia University

S.T.A.R.

Request for Graduation Check

Student ID Number: ___ ___ ___ - ___ ___ - ___ ___ ___ ___

Expected Graduation Term: ___ ___ ___ ___ ___ ___
Term: ex. 200908 is Fall 2009
01.....Spring
05.....Summer
08.....Fall

Last Name: ______________________________

First Name: ______________________ Middle Name: ______________________

First Major:______________________________ **/Emphasis:**______________

Catalog Year:____________ **Minors:**______________________________
(Ex. 0708 or 0910)

______________________________ / ______________________________
Advisor's Name (Last) (First)

____
Authorized Signature Date

Second Major:______________________________ **/Emphasis:**______________

Catalog Year:____________ **Minors:**______________________________

______________________________ / ______________________________
Advisor's Name (Last) (First)

____
Authorized Signature Date

You will be contacted via your mix account and other available contact information in STAR. Be sure that it is up-to-date.

Statement of Understanding: I understand that I must also file a graduation application at the beginning of the final semester. I will check the online Academic Calendar for the semester graduation application deadline. If I fail to meet all graduation requirements, I must reapply.

Graduation Candidate Signature:______________________________________
Signature Date

White Copy – Office of the Registrar Yellow Copy – Student 11-Aug-2011

Institute of Technology
West Virginia University.

S.T.A.R.

Graduation Application

Graduation Application Deadlines:
Fall – October 14
Spring – March 1
Summer – June 15

Note: Students applying after March 15th will not have their name printed in the commencement program.

			-				-			

Student ID Number

Expected Graduation Term: _____
Semester Year

Last Name

First Name

Middle Name

Commencement Program/Diploma Name:

Diploma Address:

☐ I plan to participate in May commencement.
☐ I do not plan to participate in May commencement.
☐ Do not print my name in the commencement program.

Cap and gown are required for commencement participation. These can be purchased through the bookstore during the spring semester.

Participation:

First Major: _____

Emphasis: _____

Catalog Year: _____
(Ex. 0708 or 0910)

Second Major: _____

Emphasis: _____

Catalog Year: _____
(Ex. 0708 or 0910)

Minors: _____

Statement of Understanding: Once the graduation application is submitted the student must graduate within one calendar year, otherwise the student must reapply for graduation. This means that s student expecting to graduate at the end of the spring term must graduate at the end of the following fall term in order for the graduation application to carry over.

***I am responsible for checking my MIX account for updates on my graduation status and for **keeping my contact information up-to-date in STAR.**

Graduation Candidate Signature: _____
Signature Date

Institute of Technology
West Virginia University

STUDENT WITHDRAWAL INFORMATION

Name: _____ Semester: _____

Student ID Number: _____

REASON FOR WITHDRAWAL

(Please, check only one reason):

____Academic Difficulty (01)

____Insufficient Financial Resources (02)

____Medical Problems (03)

____Personal (04)

____Lack of Interest (05)

____Dissatisfied with Course/Instructor (06)

____Dissatisfied with this College (07)

____Desired Courses not Available (08)

____Career Plans Uncertain (09)

____Employment/Job Conflict (10)

____Transfer (Name of Institution) _____(11)

____Administrative Withdrawal (12)

____Other: Please Specify _____(13)

____**Military – A review with the Registrar's Office withdrawal professional is advisable with regard to a military withdrawal. To process a full refund, we will need a copy of the student's activation papers.** (14)

OTHER CONSIDERATIONS

Are you an International Student? Yes ☐ No ☐

If yes, what visa type:_____

Currently receiving financial aid? Yes ☐ No ☐

Have you received student loans while enrolled at WVUIT?

Yes ☐ No ☐

Do you live in WVUIT Housing? Yes ☐ No ☐

Residence Hall: _____

Move out date: _____

Do you plan to return to WVUIT? Yes ☐ No ☐

If yes, what term? _____

CONFERENCE

Conference with Advisor and Dean in your program of study.
Dean – College of Business, Humanities, & Science COBE Room 227
Dean – Leonard C. Nelson College of Engineering – Engineering Bldg Mezzanine

_____
Advisor Signature

_____
Chemistry Dept. Signature-Returned lab key and manual

_____
Dean BHSS/LCNCES Signature

_____
Dean of Students Signature

SIGNATURE REQUIRED

I understand the following: 1) Any financial obligation due to WVUIT such as tuition, housing charges, chemistry laboratory breakage, library book fines, parking fines, etc., **MUST** be paid prior to withdrawal. 2) If I am contracted with WVUIT housing, I am required to vacate and return my keys within 24 hours of withdrawal. 3) My Student ID Card will be deactivated within 24 hours of withdrawal. 4) I should file a personal information change form if any of my contact information is changing.

Student Signature: _____ Date: _____

Return completed form to the Registrar's Office, Old Main Room 119.

Office Use Only:
Type of Withdrawal: EW ☐ SW ☐ DD ☐

SEVIS Processing? Yes ☐ No ☐ Completed: _____
VA Processing? Yes ☐ No ☐ Completed: _____

Institute of Technology
West Virginia University

Waiver/Substitution Form

Date: _____ **Student ID:** ___ - ___ - ____

PERMISSION IS GRANTED FOR _____
Last First M

I. To be relieved of the following Department Requirement(s)

A. _____

B. _____

C. _____

2. To Substitute (if for transfer credit, please use transfer credit form instead)

	Subj	Course	Title		Subj	Course	Title
A.				**For**			
B.				**For**			
C.				**For**			

3. Other _____

Approved By

1. Advisor _____ **This waiver applies to-** _____
Signature Major

2. Chair _____ **This waiver applies to-** _____
Signature Major

2. Dean/Provost _____
Signature

Change of Campus Form

West Virginia University
P.O. Box 6009
Morgantown, WV 26506-6009
Phone: 304-293-2121 or 800-344-WVU1
E-mail: go2wvu@mail.wvu.edu
Fax: 304-293-3080
Web: http://www.arc.wvu.edu/

WVU Institute of Technology
Office of Admissions
405 Fayette Pike
Montgomery, WV 25136
Phone: 304-442-3032
Fax: 304-442-3052
go2wvuit@mail.wvu.edu
Web: http://www.wvutech.edu

Potomac State College
Office of Enrollment Services
1 Grand Central Park, Suite 2
Keyser, WV 26726
Phone: 800-262-7332 or 304-788-6820
Fax: 304-788-6939
E-mail: go2psc@mail.wvu.edu
Web: http://www.potomacstatecollege.edu/

Are you a current student at: WVU ___ PSC___ WVUIT ___

Legal Name: _____
(Last) (First) (Middle)

Social Security Number:_____-_____-_____ WVU ID Number: _____
(For internal use only. Will be kept confidential.)

If you previously enrolled under a different name at WVU/PSC/WVUIT or another college, or high school, please print all name(s) below.
_____

Have you ever attended WVU before? _____ Yes _____ No If YES, for which semester/year? _____

Have you ever attended PSC before? _____ Yes _____ No If YES, for which semester/year? _____

Have you ever attended WVUIT before? _____ Yes _____ No If YES, for which semester/year? _____

Current Mailing Address: _____ Telephone: ( ) _____
(Street) (Area Code) Number

_____ _____ (City)
(State) (Zip Code)

Please indicate semester/year for which you are applying: _____ Year

_____ Fall (August – December) _____Spring (January – May) _____ Summer Session (May – August)

Please indicate Admission Type: ____ Transfer ____ Second Degree ____ Transient ____Readmission

Intended Major: _____ (see list of undergraduate major codes) Date of Birth: _____/_____/_____ (e.g., 2/30/1990)
month day year

College Education: Please list all formal educational experiences (other than WVU/PSC/WVUIT) since you graduated from high school. Attach extra sheets if needed.

Name of School	Location	Dates	Degree Earned
_____	City/State	From___/___ to ___/___ month/year month/year	_____
_____	City/State	From___/___ to ___/___ month/year month/year	_____
_____	City/State	From___/___ to ___/___ month/year month/year	_____

Are you currently enrolled in the last college listed above? ___Yes ___No

If transferring credit from another college or university, how many college credit hours have you completed? _____

Current Enrollment: Please list any college classes that you are currently enrolled in or will complete before entering WVU.

College	Course Title, Number, and Credit Hours		
_____	_____	_____	_____
_____	_____	_____	_____

_____ _____
Signature Date

25-MAY-2010/Rev 1
ADMFRM011

WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY

OFFICE OF STUDENT RECORDS AND REGISTRATION

PETITION for ADMISSION under ACADEMIC FORGIVENESS POLICY

Student Name: _____
Last First MI Maiden

Student ID Number: ___ ___ _____

Institution Last Attended: _____ Date Last Attended: _____

Student Statement: I verify that the above information is correct, that I have not attended any institution of higher education since the date stated above.

Student Signature: _____ Date: _____

**** FOR DEPARTMENTAL USE ONLY****

Institutional (WVU Tech) hours completed with grade of "D" or better:

_____

Transfer hours completed with grades of "D" or better: _____

Program/College student wishes to enter: _____

Approved: _____ Date: _____
Dean of the College

****FOR REGISTRAR AND RECORDS OFFICE USE ONLY****

Effective terms (ex. 200908 is Fall 2009): From: _____ To: _____

Transfer Inst. # _____ Attendance Period(s) _____ _____ _____

Transfer Inst. # _____ Attendance Period(s) _____ _____ _____

Transfer Inst.# _____ Attendance Period(s) _____ _____ _____

Registrar: _____ Date: _____

PLEASE RETURN THIS FORM TO THE OFFICE OF THE REGISTRAR

Institute of Technology
West Virginia University

S.T.A.R.

Personal Information Change

Student ID: |__|__|__|-|__|__|__|-|__|__|__|

Last *(please print)* First M.

MAILING/LOCAL WVUIT ADDRESS or PERMANENT ADDRESS

If you are not a current student, please contact the Alumni Office (304-442-3131). Current students please log onto your STAR account to update your address/es. Go to: Personal Information, Update Mailing Address and Cell Phone. Follow the instructions provided in STAR.

Note: If you are currently living in WVU Tech Housing DO NOT UPDATE your Mailing/Local Address. If your WVU Tech Housing address is incorrect, please contact the Housing Office at (304) 293-2811. Please note that you are a Tech student.

International Students must notify Tech-Registrar-Records@mail.wvu.edu when making address changes.

EMERGENCY ADDRESS/CONTACT INFORMATION

Personal Information, Update Emergency Contacts. Follow the instructions provided in STAR.

NAME CHANGE ☐

Two forms of legal documentation must be included. Legal documentation includes a copy of a driver's license, divorce decree or other court order delineating the name change, marriage license, social security card or passport.

Current Name: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|
Last

|__|__|__|__|__|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|__|
First Middle

New Name: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|
Last

|__|__|__|__|__|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|__|
First Middle

SOCIAL SECURITY NUMBER UPDATE ☐

A copy of your SSN card will be required for this update.

Current SSN (if applicable): |__|__|__|-|__|__|-|__|__|__|__| **Add SSN:** |__|__|__|-|__|__|-|__|__|__|__|

DATE OF BIRTH CORRECTION ☐

A copy of your driver's license, passport or birth certificate will be required for a correction.

Correct Date of Birth: |__|__|-|__|__|-|__|__|__|__|
Month Day Year

I authorize these changes. ____
Student Signature Date

Last Updated: 06-18-2010

Institute of Technology
West Virginia University.

S.T.A.R.

Classification and Grades Appeal

			-				-			

Student ID Number

Last Term Attended: _____
Semester Year

Last Name First Name Middle Name

State the Problem:

Reason the Problem Occurred:

Requested Solution:

Documentation: Documentation is usually required to support your claims. Documentation may include, but is not limited to memos from faculty or advisors, doctor's excuses, court orders, obituaries, letter from registrar of another institution regarding enrollment, etc.

Contact information:

Phone: (_____) _____ - _____

Email: _____

Address:

Signature: _____
Signature Date

Return to the Office of the Registrar, Old Main 119
Last updated 15-SEP-2011

FERPA Reference Sheet
for West Virginia University

FERPA, the Family Educational Rights and Privacy Act of 1974, as Amended, is intended to protect the privacy of student education records. It gives students the right to review their educational records, the right to request amendment to records they believe to be inaccurate, and the right to limit disclosure from those records. Ultimately, an institution's failure to comply with FERPA can mean the withdrawal of federal funds by the Department of Education. Additionally, any individual who violates FERPA may face personal repercussions.

Additional information about FERPA at WVU can be found at http://ferpa.wvu.edu.

At the University's discretion, Directory Information may be disclosed; however prior to any disclosure, Admissions and Records must be consulted to determine whether the student has chosen to withhold Directory Information by notifying Admissions and Records.

DIRECTORY INFORMATION:
(may disclose unless requested to withhold)

- Name of Student;
- Official Address;
- Telephone Number;
- Electronic Mail Address;
- Place of Birth;
- Age of Student;
- Names and Addresses of Parents;
- Major Field of Study;
- Class Status (i.e., freshman);
- Dates of Attendance; Previous Educational Institution(s) Attended;
- Degree(s) and Date(s) Conferred, including anticipated graduation dates;
- Awards;
- Honors;
- Participation in Officially Recognized Activities and Sports; and
- Weight and Height of Members of Athletic Teams.

NON-DIRECTORY INFORMATION:
(may not disclose)

Any data that can be linked to a specific student's identify including, but not limited to:

- Academic Status (Active, Probation, etc.)
- Campus Wide ID (700 Number)
- Date of Birth
- Gender/Race
- Grades/GPA
- Nationality
- Residency Status
- Student's Class Schedule
- Student social Security Number
- Test Scores
- Student Conduct Record

FOR MORE INFORMATION
Contact:
Office of the Vice President for Legal Affairs
ferpa@mail.wvu.edu

Phone: 304-293-5841

Family Educational Right and Privacy Act Release – Page 1 of 2

Please print:

Student Name _____
Last First Middle

Address _____

Student ID: ☐☐☐☐☐☐☐☐☐ Date of Birth: ☐☐-☐☐-☐☐☐☐
Month Day Year

I understand that (1) I have the right not to consent to the release or disclosure of my education records; (2) I have the right to inspect and review such records upon request; and (3) ***this consent to release or disclose will expire upon graduation or after I cease to be a student for six months or until revoked by me, in writing, and delivered to the WVU Tech Office of the Registrar, whichever comes first.*** Any disclosure of information made by WVU prior to expiration or receipt of revocation is not affected by expiration or revocation. I further understand that in order for WVU to release information to the individual(s) named below, this release must be executed. Therefore, I, the undersigned, authorize the personnel within the offices selected in Section 1 (and the corresponding offices in Morgantown) to release my educational records to the individuals identified in Section 2.

1. OFFICES WHICH MAY RELEASE EDUCATION RECORDS – (mark and initial)

____ ❒ **Offices of Admissions and the Registrar** - final grades/GPA, registration, and/or enrollment information (R)

____ ❒ **Business Office** - billing statements, charges, payments, and/or balances (A)

____ ❒ **Financial Aid Office** - financial aid awards, data, disbursements, eligibility, and/or status (F)

____ ❒ **Academic Advising Units** – advising records including progress, status, and GPA (U)

____ ❒ **Dining Services –** meal plan changes, billing issues related to dining charges (M)

____ ❒ **Residence Life (Housing) –** assignments, account info, contract info, application status (H)

____ ❒ **Parent Advocate Office** - inquiries made to this Office concerning any items on this page (P)

____ ❒ **All of the above** (Z)

2. THIRD PARTY WHO MAY RECEIVE ACCESS TO EDUCATION RECORDS –

NAME (First, Middle Initial, & Last Name) RELATIONSHIP TO STUDENT

_____ _____

_____ _____

3. PIN DESIGNATION – Furthermore, I allow release of information over the telephone if the person(s) listed above can provide the following five digit personal identification number (pin):

PIN = ☐☐☐☐☐ **(numbers only)**

Submit this Form to the Office of the Registrar
This Form is NOT Valid Without Both
Student Signature and Notary on Page 2

Family Educational Rights and Privacy Act Release – Page 2 of 2

I, the undersigned, have read and reviewed this document and expressly authorize the official/office identified in Section 1 to release my education records to the person/entity identified in Section 2. (Sections 1 and 2 are located on Page 2 of this Form)

_____ _____
Student Signature Date

STATE OF _____,
COUNTY OF _____, to wit:

The foregoing instrument was acknowledged before me this _____ day of _____, 20____ by _____.

My commission expires: _____.

_____
Notary Public Signature

For WVU Use Only:

Received by_____ Date_____

Family Educational Rights and Privacy Act Release

Please print:

Student Name: _____
Last First Middle

Address: _____
Street

_____
City State Zip

Phone: ☐☐☐-☐☐☐-☐☐☐☐ ext. ☐☐☐☐

Student ID: ☐☐☐☐☐☐☐☐☐ Date of Birth: ☐☐-☐☐-☐☐☐☐
Month Day Year

The Family Educational Rights and Privacy Act (FERPA) is a Federal law that protects the privacy of student education records. I understand that (1) I have the right not to consent to the release or disclosure of my education records; (2) I have the right to inspect and review such records upon request; and (3) **this consent to release or disclose shall remain in effect for this one request only or sooner, if revoked by me, in writing, and delivered to the person at the office named below.** Any disclosure of information made by WVU prior to expiration or receipt of revocation is not affected by expiration or revocation. I further understand that in order for WVU to release information to the recipient named below, this release must be signed. **Therefore, I, the undersigned, expressly authorize the official/office identified in Section 1 to release my education records which are identified in Section 2 to the person/entity identified in Section 3.**

1. WVU OFFICIAL(S)/ OFFICE(S) WHICH MAY RELEASE EDUCATION RECORDS –

University Official(s)/ Office(s): _____

2. DESCRIPTION OF THE EDUCATION RECORDS WHICH MAY BE DISCLOSED –

_____

_____

3. RECIPIENT OF EDUCATION RECORDS –

Person/Entity Receiving Records: _____

Address1: _____

Address2: _____

City, State: _____ Zip: _____

Phone: _____

_____ _____
Student Signature Date

Student MUST Show Picture Identification When Submitting

For WVU Use Only:

Received by _____ Date _____
Type of Picture ID _____

Rev. 2009-05-28– Legal – GF

APPENDIX III

Co-operative Education at WVU Tech

Cooperative Education at WVU Tech

"a great experience…."

"earned over $55K through co-op…."

"I finally understand Thermo…"

"learned that reactors aren't in boxes…"

Testdrive your academic major and see classroom theory being applied in the real world. Be mentored by seasoned professionals, develop professional relationships, and be a contributing project team member. You will learn how to be responsible, how to learn from craftsman, how to work in teams, and how to get the job done on time and under budget.

Co-op, because you need more……..

Eligibility

- Be enrolled in a major that permits Cooperative Education
- Maintain full-time student status
- Meet requirements regarding completed semester hours and grade point averages
- Be eligible to work in the US
- Be available for Fall, Spring, and Summer rotations

The Process

- Complete application materials
- Submit a resume and academic transcripts
- Review and search for potential employers
- Develop job campaign skills
- Arrange interviews
- Consider offers for assignment
- Develop an institutional Work/School Plan
- Report to assignment

While On Assignment

During each work period, the WVU Tech Co-op Office is the main point of contact for participating students. The office is also responsible for ensuring the quality of the co-op experience. Participants will supply up-to-date contact information each work term, submit work term activity reports, and participate in work-term evaluation reports as required by the Office. The Co-op Office will coordinate the distribution of class registration materials, financial aid forms, and housing information to students transitioning between work assignment and study period.

CO-OP ELIGIBILITY

- Be enrolled in a major that permits Cooperative Education
- Complete, or be in process of completing, the first two semesters of curriculum according to the college catalog
- Achieve and maintain a 2.2 GPA throughout Co-Op program participation
- Be enrolled at WV Tech as a full-time student
- Be eligible to complete at least 3 Co-Op terms. (Enter first Co-Op term with 35-86 completed hours)

Internships and Cooperative Education

WV Governor's Summer Internship Program
Visit: www.wv.gov/gip
Deadline to apply: July 6, _____

Cooperative education (co-op) provides an opportunity for students to apply what they learn in the classroom to career-related employment by alternating periods of full-time study with periods of full-time paid employment. The co-op program requires a commitment from the student for a minimum of three work periods.

Internships provide the same valuable paid work experience but are arranged with the employer for only one or two work periods.

What are the benefits of cooperative education and internships?

- Earn money to finance college education
- Explore career opportunities
- Enrich classroom learning through real-world experience
- Accumulate actual career-related work experience
- Enhance marketability after graduation
- Establish professional contacts
- Improve communication and interpersonal skills
- Co-op students are often offered high-paying, full-time employment from their co-op sites upon graduation

Eligibility

Students interested in cooperative education are strongly encouraged to apply during their freshman year. Applications may be submitted the semester a student will complete freshman courses. In general, the student must:

- Be enrolled in a major that offers a co-op experience
- Maintain full-time student status
- Meet all academic requirements
- Be eligible to work in the U.S.

In all cases, decisions on a student's eligibility and scheduling will be determined by Career Services and the student's academic advisor.

Cooperative Education Schedule

Cooperative education is voluntary and does not include credit hours. Work periods alternate with periods of study that are approximately equal in length. The program does not add to the required course work. Approximately one additional year is necessary to complete all academic

degree requirements and participate in cooperative education. If a student is interested in a shorter-term program, they might consider an internship to obtain employment experience.

The Process: Initial Steps

During a meeting with the Career Services Director, qualified students will be assisted with the following:

- Resume preparation
- Completing application materials
- Searching for and reviewing potential employers
- Developing job campaign skills
- Arranging interviews

The Process: Faculty Participation

When a student accepts an offer for co-op employment, an individualized work/school plan will be developed. Career Services, the employer, the student and the student's academic advisor will be involved in this process. The work/school plan projects student co-op work periods and academic curriculum needed for graduation.

The Process: Choosing Employers

A student will usually stay with the same employer throughout the co-op program.

On Assignment

During each work period, Career Services is the main point of contact on campus for participating students. Career Services is responsible for documenting and ensuring the quality of the co-op experience.

Students will supply up-to-date contact information, submit work term activity reports and participate in the work team evaluation as required by Career Services.

Career Services will coordinate the distribution of class registration, financial aid and housing information to the students during transitions between work and study periods.

Pay

Co-op is an employer-paid work experience allowing students to earn money to help with financial expenses. Rates of pay vary depending upon the employer and will usually increase with each additional work period.

Registration

To remain in full-time student status during each work period, the co-op student must register for a designated non-credit co-op course. The co-op work record will appear on the student's official academic transcript.

Tuition and Fees

No fee is required to apply to the co-op program. However, a modest administrative fee is required before starting each co-op work period. All prior college account balances must be paid before the co-op registration can be processed.

Financial Aid

Financial aid is not awarded during a co-op work period. If students need financial assistance for returning study periods, you must apply following regular Financial Aid Office procedures. Within federal regulation guidelines, the Financial Aid Office will work to ensure that participants are not penalized on their eligibility for financial aid.

Housing

During the co-op work period, the student may remain on campus, live at home or arrange for housing at or near the work site. Some co-op employers assist students with relocation expenses and arrangements. Students remaining on campus must pay the normal housing and meal plan fees.

Participating Programs

- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Mechanical Engineering
- Biology
- Chemistry
- Information Systems
- Engineering Technology

Forms

Co-op and Internship Application
CPT Application for International Students
All forms and required documentation should be returned electronically (email totechcareerservices@mail.wvu.edu) to the Career Services and Cooperative Education Office.

WE CAN HELP! Division of Student Life
Old Main, Room 325
405 Fayette Pike
Montgomery, WV 25136
304.442.3158
TechStudentLife@mail.wvu.edu

Institute of Technology
West Virginia University

Career Services and Cooperative Education
Co-Op/Internship Application

Instructions

Complete all sections of form. Return to Career Services and Cooperative Education Office with a current resume. All documents must be sent electronically to techcareerservices@mail.wvu.edu with the subject line: Co-Op/Internship Application.

Student Information

Name: Click here to enter text.
Email Address: Click here to enter text.
Address: Click here to enter text.
Academic Advisor: Click here to enter text.
Completed Credit Hours: Click here to enter text.

Student ID: Click here to enter text.
Phone Number: Click here to enter text.
Major: Click here to enter text.
GPA: Click here to enter text.

Citizenship Status

☐ U.S. Citizen
☐ Permanent Resident
☐ International (F-1 Visa)*

Have you already secured a co-op or internship site?

☐ Yes ☐ No

If yes, please complete the following:

Employer: Click here to enter text.
Address: Click here to enter text.
Telephone Number: Click here to enter text.
Contact Name and Title: Click here to enter text.
Contact Email Address: Click here to enter text.

I hereby consent to the release of my co-op/internship file including academic transcripts to potential employers. I agree to register for the appropriate cooperative education course and pay the registration fee for each of my co-op/internship work periods. I understand and agree that the Career Services and Cooperative Education Office may register me for any work term while I am on the job and I will be responsible for paying the required fees.

_____ _____

Student Signature Date

**International students must also complete the Curricular Practical Training (CPT) Application.*

Disclaimer: Since this is an elective program, Career Services and Cooperative Education cannot guarantee placement in cooperative education/internship sites. Students are encouraged to begin search process at least one full semester prior to anticipated co-op or internship semester.

Updated Spring 2016

Institute of Technology
West Virginia University

Career Services and Cooperative Education
Curricular Practical Training (CPT) Application

Curricular Practical Training (CPT) is work authorization that allows F-1 international students to participate in paid/unpaid off-campus academic internships during their degree program. The purpose of CPT is academic, not just for employment purposes, and the internship must be considered an integral part of an established curriculum and directly related to the student's major area of study.
Students must have a specific job/internship offer to apply.

Instructions
Complete all sections of this form. Return to Career Services and Cooperative Education Office with the co-op/internship application and an offer of employment. All documents must be sent electronically to techcareerservices@mail.wvu.edu with subject line: CPT Application.

Student Information
Name: Click here to enter text.
Email Address: Click here to enter text.
Address: Click here to enter text.
Academic Advisor: Click here to enter text.
Completed Credit Hours: Click here to enter text.

Student ID: Click here to enter text.
Phone Number: Click here to enter text.
Major: Click here to enter text.
GPA: Click here to enter text.

Dates of CPT
Start Date: Click here to enter a date.
Number of hours per week: Click here to enter text.

End Date: Click here to enter a date.

Will you have an on-campus job during the semester you are applying for CPT? ☐Yes ☐No

If yes, please specific the job and number of hours you plan to work each week:
Click here to enter text.

Employer Information
Employer: Click here to enter text.
Address: Click here to enter text.
Telephone Number: Click here to enter text.
Contact Name and Title: Click here to enter text.
Contact Email Address: Click here to enter text.

I understand that total employment (on and off campus combined) may not exceed 20 hours per week while school is in session during the Fall and Spring semesters. I understand that I must maintain full-time class registration during regular semesters while on CPT.

_____ _____
Student Signature Date

COMPANIES PARTICIPATING IN CO-OP PROGRAM
MECHANICAL ENGINEERING

COMPANY	LOCATION
AK Steel Corporation	Ashland, KY
AKZO Nobel Chemicals, Inc	Gallipolis Ferry, WV
Allied Signal Corporation (must have a 3.0 + GPA)	Hopewell, VA *
Bayer Corp (Must have a 3.5+ GPA)	Pittsburgh, PA
Benson International	Mineral Wells, WV
B.F. Goodrich	Union, WV
Denis Environmental Industries	Dayton, OH*
Dominion Power (Must have a 2.5+ GPA)	Glen Allen, VA*
Dow Chemical (3.0+ GPA)	So. Charleston, WV
Eramet	Marietta, OH
Ergon WV	Newell, WV
Flexsys Inc.	Nitro, WV
Framatome Technologies(Must have a 2.6+ GPA)	Lynchburg, VA
GE Industries Systems	Salem, VA
Guardian Fiberglass	Inwood, WV*
Honda Motor Company (Must have a 2.5+ GPA)	Marysville, OH
Lexmark International, Inc. (2.7 + GPA)	Lexington, KY
Marathon Ashland Petroleum LLC (3.0+ GPA)	OH/KY
March-Weston	Morgantown, WV
Mead Corporation (Must have a 2.5+ GPA)	Dayton, OH
Norfolk Southern (Must have a 2.8+ GPA)	Norfolk, VA*
Pechiney Rolled Products (Must have a 3.0+ GPA)	Ravenswood, WV
Rockwell Automation	Gallipolis, OH
Sandia National Lab	Livermore, CA
Special Metals	Huntington, WV
Tenneco Automotive	Smithville, TN
Toyota Motor Co.	Buffalo, WV
Toyota Motor Co. (Must have a 2.7+ GPA)	Georgetown, KY
U.S. Steel Mining	Pineville, WV
Westvaco	Covington, VA

*This is where the Co-op applications are sent, job openings could be in various cities.

Sample undergraduate work schedule

SCHEME 1			
Year	Fall	Spring	Summer
1	study	study	work
2	study	work	study
3	work	study	work
4	study	work	study
5	study	study	

SCHEME 2			
Year	Fall	Spring	Summer
1	study	study	study
2	work	study	work
3	study	work	study
4	work	study	work
5	study	study	

QUESTIONS
ABOUT THE COOPERATIVE EDUCATION PROGRAM

What is Cooperative Education?

Cooperative Education may be defined as the integration of classroom theory with practical experience under which students have specific periods of employment.

What is the difference between Cooperative Education and other work/study programs?

Cooperative Education is career oriented on a professional level rather than short-range job training. Is primary purpose is total education, not merely financial aid. It is characterized by a high level of integration between classroom theory and practical experience.

Are the students paid of their periods of employment?

Yes, earnings will vary based academic major, company, location, number of work periods and experience. The general trend for Co-Op salaries has been upward. Most Co-Ops are able to pay for expenses while at work and still have enough to pay a significant share of their school expenses. A major factor is their thriftiness and discipline concerning money.

Would Co-Op delay my graduation?

Yes, Co-Op does delay graduation by one additional year. However, most students will have 20-22 months of documented experience upon graduation. This documented experience usually results in: more job offers, higher starting salaries, greater job satisfaction and more and faster promotions.

Does Do-Op hurt grades by being out of school and on the job periodically?

On the contrary, Co-Op students have a significantly higher grade point average than non Co-Ops. This is partially because of their better understanding of their major subject through work experience.

What guidance does the Co-Op receive?

A trained, experienced staff matches the student's career interest and abilities with a company that can best fulfill his/her educational needs. The student is evaluated and counseled by their work supervisors each work period to aid in the personal and professional development.

What responsibilities does a Co-Op have?

The Co-Op Program is a three-way partnership between the student, the employer and the college. The student's responsibilities extend equally to each of the other two and the partnership cannot be altered without the knowledge and consent of both.

Co-Ops, working in association with professionals in their filed, will have to adopt professional standards of conduct.

After each work period, Co-Ops prepare a report describing their duties and responsibilities at work, and their supervisor sends an appraisal of their work performance to the Co-Op Director. These reports are reviewed with the students.

A Co-Op is expected to give the employer a full day's work for each day's pay. He/she should recognize that this will be possible only if they apply themselves promptly, courteously, and conscientiously to each work assignments and that it is as much the students as it is the supervisor's responsibility to see that Co-Ops are kept productively at work.

What if a student just doesn't perform satisfactorily?

Counseling with the student and the Co-Op Office should be the first step taken. If the student does not improve within reasonable length of time, termination of the student by the employer is justified.

When does Co-Op begin?

Entry-.level freshman and more advanced students may apply anytime after completing the first semester, and may be placed in a job upon completion of the freshman year. Transfer students may apply during the first semester on campus, and may be placed in a job upon completion of the first semester at Tech.

Is it possible to work in my hometown?

Yes, it is possible. However, most of Tech' student body comes from small towns with few or no industries, therefore, it sometimes becomes necessary to relocate where jobs currently exist.

Are Co-Op students eligible for vacation, group medical insurance, and other fringe benefits.

Some employers provide full fringe benefits for their Co-Op and other provide only a salary. The trend indicates that employers are permitting their Co-Ops to participate in more and more fringe benefits.

Can employers recruit their own Co-Ops from current employers or from local high school seniors?

Yes, if the student qualifies for the program in the normal fashion. Many Co-Ops are selected to the program by their employer?

Who can participate?

To be eligible for the Co-Op Program, the student must have completed one full year, have earned a quality point average of 2.2 or better and be enrolled as a full-time student.

Will my Co-Op company offer permanent employment upon graduation?

There is no obligation on the part of the student or the company to continue employment after graduation. However, most of the Co-Op students accept permanent employment with the company where they worked.

Experiential Education

Test drive your academic major and see classroom theory applied in the real world. Learn from seasoned professionals, develop professional relationships, be a contributing project team member. Learn how to be responsible, learn from craftsmen and learn how to work in teams. Prove you can get a job done on time and under budget.

These are some of the reasons why students need to participate in Experiential Education programs. Internship and Cooperative Education positions are offered by employers to help students and improve corporate relations with colleges and universities. Students bring new knowledge and vision to the work place and often employers use experiential education programs to evaluate and hire future employees.

Is There a Difference? **Internships and Cooperative Education**

Internship and Cooperative Education programs are similar in that both offer work experiences directly related to a student's academic major. Simply stated, engineering students will work in an engineering environment, while business students will work in a business environment. The major differences between these two positions is their length; an internship will generally be for a shorter period of time (weeks or months); while a cooperative education position will generally be for a longer period of time (months or years). Some internships are non-paid experiences while cooperative education positions are paid experiences.

Many experiential education formats may be available to students. Summer opportunities are the most desired, however, students can also be considered for rotational, parallel, part-time, seasonal and volunteer positions.

Who Can or Should Apply?

Depending upon the employer and the student, the campus Career Services and Cooperative Education Office must be of assistance under the following conditions:

- Students planning to work full-time during a fall or spring semester who are not enrolled as a full-time student
- Employers who require academic supervision of their student employees
- Students with F-1 Visa status

To be eligible to participate in a campus supported Internship or Cooperative Education position, a student:

- Will be enrolled in a major that permits experiential education
- Will maintain full-time student status making satisfactory progress toward graduation
- Will meet semester hour completion and institutional/employer gpa requirements
- Will be eligible to work in the US

Who Can Help?

The campus Career Services Office provides students seeking experiential education opportunities a number of services free of charge. While students are strongly advised to begin their search as early as possible, the office regularly networks with employer representatives regarding student applicants. Developing resumes, writing letters, preparing for interviews,

conducting on-line searches, reviewing academic curriculum and accepting offers the office is prepared to assist, advise and refer students.

Some of the Particulars

While on a campus supported Internship or Cooperative Education assignment:

- The office is the main point of contact for student participants. Responsible for ensuring the quality of the intern/co-op experience, the office coordinates term performance evaluations and distributes class registration information, financial aid documents and housing information to those transitioning between work and study periods.
- Participants are registered for a designated non-credit pass/fail course allowing them to maintain full-time student status regarding institutional enrollment and financial aid/scholarship deferment programs.
- Participants are not assessed institutional tuition, activity, laboratory, residence hall or meal plan fees unless a student chooses to participate in an activity requiring those fees. There is however, a modest program fee assessed for each term assignment.
- Participants may choose to live at home, on campus or arrange housing close to their work site.

Sample Work/School Plans

Sample 1

	Fall	*Spring*	*Summer*
Freshman	Study	Study	***Work***
Sophomore	Study	***Work***	***Work***
Junior	Study	Study	***Work***
Senior	Study	Study	***Work***
Graduation	Study		

Sample 2

	Fall	*Spring*	*Summer*
	Study	Study	
	Work	Study	***Work***
	Study	***Work***	***Work***
	Study	Study	***Work***
	Study	Study	

NOTE: Work/School plans outlining a program of study are developed with approval of the academic department chairperson before a candidate commits to a campus supported program.

Where Can I Apply?

While the search is more difficult now than it was before the Recession of 2008, employers are still seeking college students to fill experiential education positions. Students are therefore encouraged to network by participating in campus career fairs, completing an electronic Experience account with the office, utilizing on-line search instruments/appropriate social networking sites and by using established personal resources.

What is the First Step?

Most bachelor degree programs will accommodate a campus supported Internship or Cooperative Education assignment. All students are invited to complete and post a resume with the office as early in their academic careers as possible and then consider and apply for positions as they become available. For additional information please call (304) 442-3185, email Cantrell.Miller@mail.wvu.edu or visit Old Main Room 326 at your earliest convenience.

APPENDIX IV
Financial Aid & Scholarships*

***Disclaimer:** Information provided in this section is primarily for general guidance on securing 'Financial Assistance' in pursuit of your education at WVU Tech. Some of the information may not be current due to periodic revisions in the financial aid guidelines that are mandated by various agencies that are charged with implementing these programs. You are strongly advised to refer to the appropriate sources 'online' and elsewhere for the current accurate information and guidelines.

Financial Aid – Types, Eligibility Requirements, and Deadlines for Application (Refer to the Current Institutional Catalog for Additional Details)

It is estimated that more than half of the students attending WVU Institute of Technology receive grants, scholarships, loans, and employment through the Financial Aid Office (http://finaid.wvutech.edu), located in 205, Old Main. The Office helps applicants locate, apply for, process, and maintain eligibility for various types of financial aid in compliance with federal, state and University regulations. Students seeking financial aid for a full academic year are encouraged to begin the application process as soon after January 1 as possible.

WVU Tech will make every effort to provide financial assistance to eligible students. However, if the student and/or the parent or guardian fails to provide the necessary information in a timely manner, the University is not obliged to defer payment of fees.

1. Types of Federal Financial Aid and Application Due Dates

The deadline to submit Free Application for Federal Student Aid (FAFSA) is April 1.

☐**Federal College Work Study** – www.ed.gov/programs/fws/ - Recipients may work a maximum of 20 hours per week during full-time enrollment periods or a maximum of 40 hours per week during non-enrollment periods, such as breaks, holidays, and summers, providing there is evidence of intent to enroll the following semester. The rate of pay per hour is determined by the job description, with the lowest rate being equal to federal minimum wage.

☐**Federal Direct PLUS Loan** – http://studentaid.ed.gov/types/loans/plus - The parent or guardian must authorize a credit check and, if approved, submit the Master Promissory Note (MPN). If the loan request is denied, the student may apply for an additional unsubsidized loan.

☐**Federal Direct Subsidized and Unsubsidized Loan** - The Master Promissory Note (MPN) and entrance loan counseling must be completed by all first-time loan borrowers.

☐**Federal Pell Grant –** Deadline to submit application form is the last day of enrollment in a given academic term.

☐**Federal Perkins Loan** – A low-interest (5%) loan, the amount for which is determined by availability of funds - The Master Promissory Note (MPN) and entrance loan counseling must be completed by all first-time loan borrowers. Deadline for FAFSA submission to the Processing Center is April 1.

☐**Federal Stafford (Subsidized and Unsubsidized) Loan** – www.aessuccess.org –
A low interest loan made available through a bank, credit union, or savings & loan.
☐Federal Supplemental Education Opportunity Grant (SEOG) –
Deadline for FAFSA submission to the Processing Center is April 1.

2. Other Types of Financial Aid and Application Due Dates

☐**Campus Based Aid** – Decisions about campus-based aid are based upon consideration of both the FAFSA and the electronically submitted needs analysis materials.
Deadline for application is April 1.

☐**Institutional Scholarships –** Scholarship usually have unique and individual requirements and deadlines, and amounts awarded vary by program. See later for details.
☐**Job Location and Development Program –**
http://ifap.ed.gov/sfahandbooks/attachments/0102Vol6Ch6.pdf - Encourages development of off-campus, part-time or full-time employment for all students regardless of financial need.

☐**SMART Scholarship -** http://smart.asee.org - The Science, Mathematics And Research for Transformation (SMART) Scholarship for Service Program is an opportunity for students pursuing an undergraduate degree in Science, Technology, Engineering, and Mathematics (STEM) disciplines to receive a full scholarship and be gainfully employed upon degree completion. See later for details.

☐**Promise Scholarship –**
https://secure.cfwv.com/Financial_Aid_Planning/Scholarships/Scholarships_and_Grants/West_Virginia_PROMISE.aspx

☐**State Work-Study Program –** Similar to the Federal Work-Study Program except it is not based on need and 100% of wages are paid by the employer.

☐**West Virginia Higher Education Grant –** The FAFSA form must be postmarked by March 1 of the calendar year of enrollment.

3. Eligibility for Federal Financial Aid

To be eligible for, and keep, federal aid the student must:
☐Enroll at least half time in an eligible degree or certificate program
☐Be a U.S. citizen or an eligible non-citizen with a valid social security number
☐Demonstrate financial need (except for certain loans)
☐ Make satisfactory academic progress as determined by the Satisfactory Academic Progress Policy for Financial Aid, which is available in the Office of Financial Aid
☐Not fall into default on a Federal Perkins Loan, Federal Stafford Loan, or Federal PLUS loan at any school
☐Not owe a refund on a Federal Pell Grant or a Federal Supplemental Educational Opportunity Grant or any other federal program at this or any other school
☐Be registered with Selective Service, if male and between the ages of 18 and 25.

Satisfactory Academic Progress (SAP) is used to define successful completion of coursework to maintain eligibility for student financial aid. Failure to meet these standards will cause the aid recipient be placed on financial aid probation or suspension.

Qualitative standard: must maintain a minimum cumulative GPA of 2.0.

Quantitative standard: must complete a degree or certificate program within 150% of the average length of the program, and must successfully complete a minimum of 67% of all attempted credit hours each semester. See current catalog for additional information.

At the end of the fall and spring semesters, a review of all financial aid recipients occurs to measure progress. All credits attempted in residence are reviewed, including credits attempted without financial aid. Students who initially fail to meet the minimum standards of progress will be placed on financial aid probation. Probationary students are advised in writing of the terms of probation and allowed to receive financial aid. Probationary status cannot be appealed but may be updated based on grade changes due to timing, completion, or error. Students who fail to meet the terms of probation are suspended from financial aid eligibility, and are notified in writing.

Students with mitigating circumstances may appeal for an extension of a probationary period. Documentation of special circumstances, successful resolution of problem(s) causing academic distress and a program of study plan approved by the academic advisor must be submitted. Students will be notified of a decision in writing.

Students suspended from financial aid eligibility who do not have mitigating circumstances may be able to request reinstatement for financial aid. They must have made positive progress towards their degree since suspension from eligibility. Students may submit a Satisfactory Academic Progress Appeal Form for review. Students will be notified of a decision in writing.

If a student is enrolled in dual degree programs, seeking a second undergraduate degree or c\hanging majors, an extension of the maximum timeframe provision of this policy may be requested. Requests will be evaluated on a case-by-case basis. The credits earned under all majors will be included in the calculation of attempted, earned, and maximum timeframe credits, as well as the GPA calculation. If a student continues to take classes towards a second major after completing all required coursework for a first degree that has not yet been awarded, aid may continue as long as SAP standards are met and the maximum timeframe is not exceeded. All credits attempted and earned at any West Virginia University campus (WVU Tech, Morgantown or Potomac State) will be included when calculating the maximum time frame, GPA, and credit completion. If a student is required to withdraw for military service, credit completion and maximum timeframe requirements will be waived for the semester of your official withdrawal.

College credits earned while a student is in secondary education will be included in the cumulative credit completion ratio, GPA, and the maximum time frame calculation.

The FAFSA form is generally available in the offices of high school counselors and principals by late November of each year. It may also be accessed online www.fafsa.ed.gov. Mailed applications must be postmarked by March 1 of the calendar year of enrollment. It is necessary to submit the FAFSA form on an annual basis in order to continue being considered for federal and state financial aid programs.
This form is used to determine eligibility for the:
☐Federal College Work Study (CWS)
☐Federal Pell Grant
☐Federal Perkins Loan
☐Federal Stafford Loans
☐Federal Supplemental Educational Opportunity Grant (SEOG)
☐Higher Education Adult Part-Time Award
☐Promise Scholarship
☐West Virginia Higher Education Grant

4. Determining Financial Need

The amount and combination of financial aid resources that can be awarded are usually governed by financial need. Need is the difference between the total cost of attending college and Expected Family Contribution (EFC), which is the amount the student and the student's family will contribute toward this. The difference between total cost and the EFC is the projected financial need. Sources of revenue, including income, assets, and benefits (for example, unemployment benefits or Social Security), are all taken into consideration in determining financial need.

5. Transfer Students

Financial aid does not automatically follow the student who transfers to WVU Tech from another school. To continue receiving aid, the student should check with the Office of Financial Aid as soon as possible to find out what aid will be available. It is the transfer student's responsibility to:

☐Submit an academic transcript from all previous schools attended.
☐Apply anew through the WVU Tech Office of Financial Aid.
☐Change the school code, OPEID, to WVU Tech - 003825 online at www.fafsa.ed.gov.
☐Notify the state grant program of intent to transfer.

6. Notice of Financial Aid Award

An award letter will be sent after the student's financial aid is arranged by the Financial Aid Office. The student who wishes to decline any of the aid offered should do so within 30 days of receiving the award letter by either (1) replying on the award letter and returning the letter to the Office of Financial Aid; or (2) replying online by way of the MIX or STAR account.

When pending financial aid is not available at registration, the student should arrange to pay the costs and request reimbursement. Please note that, to comply with federal regulations, it may be necessary to reduce some financial awards so that financial aid will not exceed the actual cost of education at WVU Tech.

7. Disbursement

Student aid is disbursed each term unless otherwise stated by scholarship donors or other third parties. Disbursements are electronically sent to WVU Tech for payment of tuition, fees, room, and board. Any overpayment is disbursed to the student by e-Refund the first week of classes.

8. Student Responsibilities

It is the student's responsibility to:

☐Review and consider all information about the school's program before enrolling.
☐Complete all application forms accurately and submit them on time to the right place.
☐Accurately complete the application for student financial aid. Errors can result in long delays in receiving financial aid.
☐Return all additional documentation, verification, corrections, and new information requested by either the Office of Financial Aid or the agency to which the application was submitted.
☐Read, understand, and keep copies of all signed forms and relevant materials.
☐Accept responsibility for all signed agreements.
☐Notify the lender of any changes in name, address, or school status.
☐Perform in a satisfactory manner the work agreed upon in accepting a College Work- Study award.
☐Know and comply with the deadlines for application or reapplication for aid.
☐Know and comply with the school's refund procedures.
☐Know and comply with the satisfactory academic progress policy for financial.

In-State Resident Scholarships

We appreciate your interest in West Virginia University Institute of Technology. As you consider where you will pursue your degree, it is never too early to begin thinking about how you will finance your education.

At WVU Tech, getting a high-quality, career focused education is more affordable than you may think. By applying for admission to WVU Tech, you are automatically considered for our very attainable, valuable scholarship opportunities. The information below is an overview of our West Virginia Resident, first-year and transfer student scholarships.

Simply apply for admission. WVU Tech does not charge an application fee, so investing in a brighter future will only cost you a few minutes of your time.

In addition to assessing your eligibility for scholarships and grants, our financial aid staff will examine a variety of options to make the WVU Tech experience affordable. These include, but are not limited to:

- Federal/State Grants
- Student Loans
- Federal/State Scholarships
- Institutional Assistance

WVU Tech Freshman Scholarship

			Minimum Incoming Freshmen Academic Requirements	
Program Level	Yearly Amount	4-Year Commitment	Overall High School GPA	ACT Score (SAT Equivalent)
Level 1	$3,000	$12,000	3.5	25 (1140)
Level 2	$2,000	$8,000	3.25	23 (1070)
Level 3	$1,000	$4,000	3.0	21 (1000)

The above awards are renewable for up to 4 years. First time freshmen and transfer students with less than 30 credit hours must have at least a 3.0 gpa in the college level courses. GED recipients should have at least a combined score of 3100 (620 average), to be considered for freshmen scholarships. Students must meet the following renewal criteria:

Minimum of 30 completed credit hours per academic year (including summer term), and a 3.0 overall GPA.

Please Note: ACT Composite score, SAT Mathematics and Critical Reading only

West Virginia Resident, First Generation First-year Grant

- Yearly Award: $1,000
- West Virginia resident – neither parent has a 4-year college degree
- HS GPA: 2.0 or higher
- ACT: 18 (870 – SAT)
- EFC (Estimated Family Contribution): 1000 or below

Renewable for up to 4 years. Students must meet the following renewal criteria: Minimum of 30 completed credit hours per academic year including summer term, and a 2.5 overall GPA.

Transfer Student Scholarship

- Annual Award Program for West Virginia residents: $2,000
- College GPA: 3.0 or higher for students with 24 or more college level credit hours.

The award is renewable for 2-years based on student's continuing status with a minimum of 30 completed credit hours per academic year including summer term and a 3.0 overall GPA.

Dependent Employee Scholarship

The WVU Tech Dependent Employee Scholarship was established to assist legally dependent children (based on federal income tax returns) of benefit-eligible employees. Students wishing to be considered must be enrolled full-time as undergraduates or admitted freshmen or transfer students on the WVU Tech campus. Selection is based on objective academic criteria and family income information. If chosen, the minimum award is $500 per year and the maximum is $1,650 per year. Read through the eligibility requirements and complete the application to be considered for the scholarship.

Scholarship Details (effective January 2016)

All WVU Tech academic scholarships are tuition, programmatic fee, housing and meal plan specific. TheACT score considered is the composite score and SAT score counts for critical reading and mathematics. Scholarship funds will not be applied towards books, or other fees. Full-time, degree seeking students can only receive one institutional academic scholarship.

Transfer students eligibility will be reviewed with counting in-progress grades towards the total completed.

Student's eligibility will be re-checked with information on the final transcript and scholarship offers may be rescinded if requirements are no longer met.

Nondegree, readmit, and second degree seeking students are not eligible for scholarships. Students in Career Technical Education and Regent's bachelor programs and students in certificate programs do not qualify for the awards.

Students, who lose their scholarship during their career at WVU Tech, have the ability to earn the award back by meeting the renewal standards the next academic year. Each year a student is enrolled at WVUTech takes away a year of eligibility for the scholarship.
Subject to change: Because of the nature of institutional guidelines affecting financial aid programs, the information outlined in this publication is subject to change

Non-Resident Scholarships

We appreciate your interest in West Virginia University Institute of Technology. As you consider where you will pursue your degree, it is never too early to begin thinking about how you will finance your education.

At WVU Tech, getting a high-quality, career focused education is more affordable than you may think. By applying for admission to WVU Tech, you are automatically considered for our very attainable, valuable scholarship opportunities. The information below is an overview of our Non-West Virginia Resident & International, first-year and transfer student scholarships.
Simply apply for admission. WVU Tech does not charge an application fee, so investing in a brighter future will only cost you a few minutes of your time.
In addition to assessing your eligibility for Freshman Scholarships and Grants, our Financial Aid staff will examine a variety of options to make the WVU Tech experience affordable. These include, but are not limited to:

- Federal/State Grants
- Student Loans
- Federal/State Scholarships
- Institutional Assistance

WVU Tech Non- Resident Freshmen Scholarships

			Minimum Incoming Freshmen Academic Performance Requirements	
Program Level	Yearly Amount	4-Year Commitment	Overall High SchoolGPA	ACT Score (SAT Equivalent)
Level 1	$6,500	$26,000	3.5	25 (1140)
Level 2	$5,000	$20,000	3.25	23 (1070)
Level 3	$3,500	$14,000	3.0	21 (1000)

The above awards are renewable for up to 4 years. First time freshmen and transfer students with less than 30 credit hours must have at least a 3.0 gpa in the college level courses. GED recipients should have at least a combined score of 3100 (620 average), to be considered for freshmen scholarships. Students must meet the following renewal criteria: Minimum of 30 completed credit hours per academic year (including summer term), and a 3.0 overall GPA.
Please Note: ACT Composite score, SAT Mathematics and Critical Reading only

STEM Non-West Virginia Resident & International 1st-Year Student Scholarship

- Annual Award Program: $8,500
- HS GPA: 3.0 or higher
- ACT: 24 (1110 – SAT Equivalent)

The award is available to non-WV resident and international first-year students who major in one of the approved STEM programs. The award is renewable based on the student's continuing status as a STEMmajor, with a minimum of 30 completed credit hours per academic year (including summer term), and a 3.0 overall GPA. The award is renewable for up to 4 years. Students are not eligible to receive both the STEMand the Non-WV Resident, First-Year Scholarship.

WVU Tech Transfer Student Scholarships

- Annual Award Program for non-West Virginia residents: $4,000
- College GPA: 3.0 or higher for students with 24 or more college level credit hours.

The award is renewable for 2-years based on student's continuing status with a minimum of 30 completed credit hours per academic year including summer term and a 3.0 overall GPA.

STEM Non-West Virginia Resident & International Transfer Student Scholarship

- Annual Award Program: $8,500
- College GPA: 3.0 or higher for students with 24 or more college level credit hours

The award is available to non-WV resident and international transfer students who major in one of the approved STEM programs. The award is renewable for 2-years based on the student's continuing status as a STEM major, with a minimum of 30 completed credit hours per academic year (including summer term), and a 3.0 overall GPA.

Scholarship Details (effective January 2016)

All WVU Tech academic scholarships are tuition, programmatic fee, housing and meal plan specific. TheACT score considered is the composite score and SAT score counts for critical reading and mathematics. Scholarship funds will not be applied towards books, or other fees. Full-time, degree seeking students can only receive one institutional academic scholarship.

Students participating in the Academic Common Market are only eligible for scholarships on the in-state scholarship amount levels.

Transfer students eligibility will be reviewed with counting in-progress grades towards the total completed.

Student's eligibility will be re-checked with information on the final transcript and scholarship offers may be rescinded if requirements are no longer met.

Nondegree, readmit, and second degree seeking students are not eligible for scholarships. Students in Career Technical Education and Regent's bachelor programs and students in certificate programs do not qualify for the awards.

Students, who lose their scholarship during their career at WVU Tech, have the ability to earn the award back by meeting the renewal standards the next academic year. Each year a student is enrolled at WVUTech takes away a year of eligibility for the scholarship.

Subject to change: Because of the nature of institutional guidelines affecting financial aid programs, the information outlined in this publication is subject to change.

Current Student Scholarships

WVU Tech offers a variety of scholarships to current, qualifying students. If you're interested in applying for one or more of the scholarships listed below, please use the following application form. Students who submit an application will be considered for all applicable scholarships – *you only need to apply once*. Submitting an application does not guarantee any scholarship award.

Athletic scholarships are available. Contact the coach of your chosen sport to find out more.

Note: If you are an incoming freshman or transfer student, see our in-state and out-of-state scholarships.

WVU Tech offers scholarships in the following categories:

- Business, Humanities and Social Sciences
- Engineering and Sciences
- General (no degree preference)
- Greater Kanawha Valley Foundation Scholarships for WVU Tech Students

College of Business, Humanities and Social Sciences Scholarships

BHSS Scholarship
Funds will be used for scholarships for the Tech BHSS.
Alicia McCormick Memorial Scholarship
For students majoring in Health Service Administration, Public Service Administration or any Social Science field in the College of Business, Humanities and Social Sciences. Recipients will demonstrate good academic standing by maintaining a 2.5 GPA or higher. First preference will be for residents of Greenbrier County, West Virginia.
Barbara Nelson Memorial Scholarship
This Demand Fund shall provide scholarships for first year (freshman) students in the College of Business, Humanities, and Social Sciences at WVU Tech. Recipients shall be enrolled in a major in the Humanities and demonstrate good academic standing by maintaining a GPA of 2.0. This is a one-year award.
Brigit Laird Memorial Nursing Scholarship
For residents of Fayette County, West Virginia who are majoring in nursing. Recipients will demonstrate good academic standing by maintain a GPA of 2.8 and have financial need.
Helen Wood Poffenbarger & Perry S. Poffenbarger Nursing Scholarship
Provides scholarships for students majoring in Nursing at WVU Tech. Recipients shall be in good academic standing by maintaining a GPA of 3.0 or higher.
J.A.B. and Verna Veazey Holt Scholarship
For West Virginia resident nursing students from Kanawha, Fayette, Nicholas, Raleigh or Clay counties, West Virginia. Recipients will demonstrate good academic standing by maintaining a GPA of 2.5, be full-time status and have completed at least 30 hours of classroom and laboratory credit towards a nursing degree.
Laird Memorial Nurses Scholarship
For West Virginia residents majoring in nursing. Recipients must be full-time status and will demonstrate good academic standing by maintaining a GPA of 2.5 to receive this award. First preference will be for residents of Fayette, Raleigh or Kanawha counties, West Virginia. First consideration for this scholarship will be for students who complete an essay describing why they want to be a nurse and why financial assistance is needed.
Lala Breeden Nursing Scholarship
For West Virginia resident students majoring in Nursing who demonstrate good academic standing by maintaining a 3.0 GPA or higher and have financial need.
Nursing Scholarship
For West Virginia resident students enrolled in the nursing program. First preference will be for residents of Nicholas, Fayette, Clay and Kanawha counties, West Virginia. Recipients will be in good academic standing as defined by WVU and will demonstrate financial need. First consideration for this scholarship will be for students who complete an essay describing why they want to be a nurse.

Pitsenberger Family HHJ&L Endowed Scholarship
For full-time students majoring in Business Management. Recipients will demonstrate financial need and be in good academic standing by maintaining a GPA of 2.0. First preference will be for students who are residents of Kanawha, Fayette or Nicholas counties, West Virginia.
Rapp Endowed Scholarship
For students enrolled at WVU Tech in the Department of Sport Studies' Athletic Coaching Education or Sport Management majors. Recipients shall demonstrate good academic standing by maintaining a GPA of 3.0. A student who is a recipient one year is eligible for consideration in any other year, provided they continue to meet the selection criteria.
Sterl F. Shinaberry Scholarship
For West Virginia resident, full-time students majoring or minoring in Accounting, Business Management, Finance, Economics or other business majors excluding the social sciences and related majors in the College of Business, Humanities and Social Sciences at WVU Tech. Recipients will demonstrate good academic standing by maintaining a 2.5 GPA or higher, have financial need and be residents of Pocahontas, McDowell, Raleigh, Kanawha or Clay counties, West Virginia. First preference will be for residents of Pocahontas County, West Virginia.
Teddi Wilkenson Nursing Scholarship
For students of sophomore status attending WVU Tech. This is a one-year award. Recipients shall demonstrate good academic standing by maintaining a GPA of 2.5.
Valley Emergency Medical Services Scholarship
For West Virginia resident students. Recipients will be in good academic standing by maintaining a GPA of 3.0, maintain full-time status and major in a field of study aligned with the health care industry (including but not limited to nursing and pre-professional programs). First preference will be for students working in jobs delivering patient care and/or are children of EMT personnel.
Apply for Scholarships

Leonard C. Nelson College of Engineering & Sciences Scholarships

LCNCOES Scholarship
Funds will be used for scholarships to the LCNCOES for use with the college.
Alex Walmsley Memorial Scholarship
For West Virginia residents enrolled full-time in the electrical engineering program. Recipients will demonstrate academic promise and financial need. Preference will be given to students from Kanawha, Fayette, Nicholas, Raleigh or Mercer counties. West Virginia.
Ammy Michelle Webb Civil Engineering Scholarship
For West Virginia residents majoring in Civil Engineering. Student recipients must be in their sophomore, junior or senior year, be full-time status, be in good academic standing by maintaining a GPA of 3.0 and demonstrate financial need to receive this award. Student athletes are not eligible for this scholarship.
Bryan Bills Scholarship
For West Virginia residents majoring in civil engineering. Student recipients must have completed their junior year, be within two semesters of completing their degree, be members of the WVU Tech ASCEStudent Chapter (as long as the Chapter exists) and have the highest grade point average of eligible candidates. In the event two students have the same GPA, the student demonstrating the highest financial need will receive the scholarship.
Computer Science Scholarship
For students majoring in Computer Science in the Department of Computer Science and Information Systems.
Donalson Engineering Scholarship
For junior or senior students in the Leonard C. Nelson College of Engineering & Sciences. Recipients shall be for residents of Raleigh, Fayette, Roane or Putnam Counties in West Virginia, demonstrate good academic standing by maintaining a GPA of 2.5 and have financial need.
Ernest Mello Scholarship
Scholarships for students majoring in Chemical Engineering at WVU Tech. Recipients shall be a rising junior and demonstrate good academic standing to receive this award. In the event there is a need for additional criteria to separate the top students to receive this award, financial need may be considered.
Gasperine Milo Mathematics Scholarship
For West Virginia resident students majoring or minoring in Mathematics. Recipients will demonstrate good

academic standing by maintaining a 3.0 GPA or higher and have financial need. First preference will be for residents of Fayette County, West Virginia.

H.M. McSurley Endowed Scholarship

For students majoring in Industrial Engineering Technology.

Harvey R. Chapman Memorial Scholarship

For West Virginia resident students majoring in Civil Engineering. Recipients will demonstrate good academic standing and be of sophomore or junior rank with at least three semesters remaining until graduation to receive the initial award.

Henry C. Skaggs Jr. Scholarship

For West Virginia Residents majoring in Mechanical or Electrical Engineering. Recipients will demonstrate good academic standing by maintaining a GPA of 3.0.

Hungate-Thyson Civil Engineering Scholarship

For West Virginia residents majoring in civil engineering in the Leonard C. Nelson College of Engineering and Sciences at WVU Tech. Students must be full-time status, demonstrate financial need, maintain a GPAof 2.5 and be in good academic standing to receive this award. First preference shall be given for residents of Raleigh County, West Virginia. Second preference to any county in West Virginia. For recipients who are entering into the program as freshman, a minimum un-weighted high school GPA of 2.8 and a Math ACTscore of 19 (or SAT Math score of 460) are required. A student who is a recipient one year is eligible for consideration in any other year provided they continue to meet the selection criteria, but may only receive a maximum of four years. Students who take longer than a four-year period to complete their undergraduate degree become ineligible after completion of their fourth year at WVU Tech. Permission to extend the four-year maximum award period may be granted for students who have experienced extenuating circumstances.

Jack Neely Scholarship

For students majoring in Mathematics. Recipients will demonstrate good academic standing and financial need.

James F. Clark Memorial Scholarship

For students majoring in Mathematics. Recipients will demonstrate good academic standing by maintaining a 2.0 GPA or higher.

Leonard R. and Farrell Kirk Computer Science Scholarship

For West Virginia residents majoring in Computer Science and Information Systems. Recipients will maintain a GPA of 2.0 and full-time status and demonstrate financial need.

Nelson Endowed Scholarship

For students majoring in engineering.

Pamela and Sewell Preston Champe Scholarship

For rising seniors who intend to matriculate into a graduate program in biology, chemistry, mathematics or physics within one year of graduation. Recipients will be in good academic standing as defined by WVU with first preference for United States citizens as allowed by law and institutional policy.

Richard Ridgeway Moore Memorial Scholarship

For students majoring and/or minoring in engineering or mathematics. Recipients will demonstrate good academic standing by maintaining a GPA of 3.0, be full-time status.

Russell F. Hazelton Scholarship

For rising seniors majoring in Chemical Engineering. Recipients will demonstrate good academic standing and financial aid. This is a one-year award.

Apply for Scholarships

General Scholarships (no degree preference)

General Scholarship

Funds will be used for Tech institutional scholarships

A. Reed Davis Scholarship

For students from Pocahontas County, West Virginia. Recipients will demonstrate good academic standing by maintaining a GPA of 2.5. First preference will be for recipients who demonstrate financial need.

Alva W. and Irene May Orndorff Scholarship

For West Virginia resident students who demonstrate financial need, are residents of Kanawha, Fayette or Nicholas counties, West Virginia, are in good academic standing by maintaining a GPA of 2.0 and who maintain full-time status.

Alan M. and Evelyn G. Simmons Scholarship
For West Virginia residents who demonstrate good academic standing by maintaining a GPA of 2.5 and have a financial need. First preference will be for students who are children of coal miners as can be determined by WVU Tech.

Clonch Family Scholarship
For West Virginia residents who demonstrate good academic standing by maintaining a GPA of 2.5 and have completed at least 30 semester hours of college credit. First preference will be for students from Fayette, Nicholas, Clay, Kanawha, Boone or Raleigh counties, West Virginia.

Dr. Dana R. and Ethel R. Ervin Scholarship
For West Virginia resident students enrolled at WVU Tech. Recipients shall be graduates of Riverside High School, or its successor, be full-time status in a four-year degree program, demonstrate good academic standing by maintaining a GPA of 3.0 and have an ACT score of 18 or higher.

Dr. Rajendra K.Gupta Scholarship
For students from India. First preference will be for recipients who demonstrate financial need.

E.E. "Gene" Dillion Scholarship
For rising sophomore students enrolled in a degree granting major (examples include AS, BS, BA) at WVUTech. Recipients will demonstrate good academic standing by maintaining a GPA of 3.5.

Enrique and Sallie Aguilar Scholarship
For students at WVU Tech. First preference shall be for students majoring in Engineering, Computer Science or Nursing. Second preference shall be for any student at WVU Tech. Recipients shall demonstrate good academic standing by maintaining a GPA of 2.5. Students must be full-time status to receive this award. Special consideration may be granted to students from Fayette County, West Virginia and/or a West Virginia resident.

Ethel "Midge" Crandall Scholarship
For West Virginia resident students who demonstrate good academic standing by maintaining a 2.5 GPA or higher and who are graduates of Valley High School (Fayette County, West Virginia) or its successors.

James William & Frances Lynch Vencill Scholarship
For students of sophomore status attending WVU Tech. This is a one-year award. Recipients shall demonstrate good academic standing by maintaining a GPA of 2.5.

Kraybill Family Endowed Scholarship
For full-time West Virginia residents who demonstrate good academic standing by maintaining a GPA of 3.5.

Larry Phillips Memorial Scholarship
For West Virginia resident student athletes playing any sport at the WVU Tech. Recipients shall be full-time status and demonstrate good academic standing by maintaining a GPA of 3.0.

Legacy Scholarship
For a West Virginia resident student enrolled at WVU Tech. This scholarship shall be limited to a single student demonstrating financial need. A student who is a recipient one year is eligible for consideration in any other year provided they continue to meet the selection criteria. The value of this award shall not exceed the equivalent cost of that academic year's tuition and fees. Students must be full-time status to receive this award.

Lincoln Scholarship
For students who demonstrate good academic standing and financial need.

Majorie A. Poland Scholarship
Will be used to pay a scholarship of $2,500 each to one freshman, one sophomore, one junior and one senior for all four years of their education at WVU Tech. The students must be native West Virginian, full-time status, have a minimum of a 2.5 GPA from high school, have graduated from a West Virginia High School and have financial need.

Mrs. Rex A. "Lessie" Burdette Scholarship
For students enrolled at WVU Tech. Recipients shall be freshman rank and full-time status. This award is not renewable.

Nora Goad Endowed Scholarship
For students enrolled full-time in a degree-granting program that demonstrate financial need.

Otis K. Rice Endowed Scholarship
For West Virginia residents enrolled at WVU Tech. Recipients shall demonstrate good academic standing by maintaining a GPA of 3.0, have a composite ACT of 21, be graduates of Riverside High School or its successor and be enrolled full-time status in a four-year degree granting program. Financial need may be considered. A student who is a recipient one year is eligible for consideration for up to ten semesters provided they continue to meet the selection criteria.

Ruth Watson Memorial Scholarship
For students in good academic standing who demonstrate financial need. First preference will be for students majoring in mathematics or the science disciplines.
Shri Amrit Gupta Scholarship
For students from India. First preference will be for recipients who demonstrate financial need.
Smt. Basanti Nevi Gupta Scholarship
For female students from India. First preference will be for recipients who demonstrate financial need.
VanGeem Endowed Scholarship
Students enrolled at WVU Tech. This is a one year award for freshman or first year transfer students.
Virginia P. Toney Presidential Honorarium
For students enrolled at WVU Tech who demonstrate good academic standing by maintaining a GPA of 3.2 and have an ACT of 21 composite.
WV State Society of Washington Scholarship
For West Virginia residents who are enrolled as incoming freshman at WVU Tech. This is a one-year award.
William A. Bragg Scholarship
For West Virginia residents who are graduates of Riverside High School in Kanawha County, West Virginia or Valley High School in Fayette County, West Virginia. Recipients must demonstrate good academic standing by maintaining a GPA of 2.7, be full-time status and demonstrate financial need.
Apply for Scholarships

Greater Kanawha Valley Foundation Scholarships for WVU Tech Students

Dale C. Bailey Scholarship
For students attending WVU Tech and pursuing a four-year degree. Applicants must demonstrate financial need and maintain a 2.5 GPA.
Steven Engineering Scholarship
For students enrolled in an engineering program. Applicants must demonstrate financial need.
These two scholarships are administered by The Greater Kanawha Valley Foundation (TGKVF). Students interested in these scholarships need to apply on the TGKVF website.
Richard C. Flint Scholarship
For students studying a program in the social science department including Health Service Administration, Public Service Administration, Criminal Justice and Forensic Investigation are eligible to apply. Students should contact Janis Rezek in COBE 326 ext. 3120 for applications and instructions. This scholarship is held by the Kanawha Valley Foundation and a WVU Tech committee selects the recipients.

International Student Scholarships

We appreciate your interest in West Virginia University Institute of Technology. As you consider where you will pursue your degree, it is never too early to begin thinking about how you will finance your education.

At WVU Tech, getting a high-quality, career focused education is more affordable than you may think. By applying for admission to WVU Tech, you are automatically considered for our very attainable, valuable scholarship opportunities. The information below is an overview of our Non-West Virginia Resident & International, first-year and transfer student scholarships.

Depending upon the scholarship award (awards are described in the chart below) international students can realize one-year savings of $3,500 to $8,500 (USD) and four-year savings of $14,000 to $34,000 (USD).

International Freshman Scholarship

Program Level	Yearly amount	Overall high school GPA	ACT or SAT Score
Level 1	$6,500	3.5	25 (1140)
Level 2	$5,000	3.25	23 (1070)
Level 3	$3,500	3.0	21 (1000)

The above awards are renewable for up to 4 years. First time freshmen and transfer students with less than 30 credit hours must have at least a 3.0 gpa in the college level courses.

Students must meet the following renewal criteria: Minimum of 30 completed credit hours per academic year including summer term, and a 3.0 overall GPA.

STEM Non-West Virginia Resident & International 1st-Year Student Scholarship

- Annual Award Program: $8,500
- HS GPA: 3.0 or higher
- ACT: 24 (1110 – SAT Equivalent)

The award is available to non-WV resident and international first-year students who major in one of the approved STEM programs. The award is renewable based on the student's continuing status as a STEM major, with a minimum of 30 completed credit hours per academic year (including summer term), and a 3.0 overall GPA. The award is renewable for up to 4 years. Students are not eligible to receive both the STEM and the International First-Year Scholarship.

WVU Tech Transfer Student Scholarships

Transfer Student Scholarship

- Annual Award Program for International students: $4,000
- College GPA: 3.0 or higher for students with 30 or more college level credit hours.

The award is renewable for 2-years based on student's continuing status with a minimum of 30 completed credit hours per academic year including summer term and a 3.0 overall GPA.

STEM International Transfer Student Scholarship

- Annual Award Program: $8,500
- College GPA: 3.0 or higher for students with 30 or more college level credit hours

The award is available to non-WV resident and international transfer students who major in one of the approved STEM programs. The award is renewable for 2-years based on the student's continuing status as a STEM major, with a minimum of 30 completed credit hours per academic year (including summer term), and a 3.0 overall GPA.

Scholarship Details (effective January 2014)

All WVU Tech academic scholarships are tuition, programmatic fee, housing and meal plan specific. Scholarship funds will not be applied towards books, or other fees. Full-time, degree seeking students can only receive one institutional academic scholarship.

Transfer students eligibility will be reviewed with counting in-progress grades towards the total completed.

All students must submit final transcripts with grades by July1st. Student's eligibility will be re-checked with information on the final transcript and scholarship offers may be rescinded if requirements are no longer met.

All recipients need to register during priority registration for all continuing terms (prior to December 15 for spring and prior to May 15 for fall).

Non-degree, readmit, and second degree seeking students are not eligible for scholarships. Students in Career Technical Education and Regent's bachelor programs and students in certificate programs do not qualify for the awards.

Students, who lose their scholarship during their career at WVU Tech, have the ability to earn the award back by meeting the renewal standards the next academic year. Each year a student is enrolled at WVU Tech takes away a year of eligibility for the scholarship.
Subject to change: Because of the nature of institutional guidelines affecting financial aid programs, the information outlined in this publication is subject to change.
International students who are offered and accept either of these scholarships are required to submit Proof of Financial Support as well, showing that they have adequate funding for their studies at WVU Tech. The I-20 form, which is required to obtain a student visa, will be issued and sent only after Proof of Financial Support is received.

The PROMISE Scholarship

The PROMISE Scholarship is sponsored by the state of West Virginia and pays complete tuition and fees to any public college or university in West Virginia, or an equivalent amount to an in-state private college.

Please review the PROMISE Scholarship website for an in-depth review of this opportunity. Current scholarship criteria are available on the PROMISE Scholarship website. Additional details can be found on our PROMISE FAQ.

To be considered for PROMISE, you are required to complete the PROMISE application by March 1. You also must file a Free Application for Federal Student Aid (FAFSA) before March 1, even if you don't think you'll qualify for need-based financial assistance.

Why Should You Use PROMISE to Attend WVU Tech or WVU?

Simply put, no other college or university in the state can offer you everything that we can. The PROMISE Scholarship is a reward for your hard work and academic achievement – using your scholarship at WVU Tech or WVU means that you continue to reward yourself by getting the most for your money. In fact, close to 40 percent of all PROMISE Scholarship recipients choose to attend WVU. Additionally, WVU's renewal rate for the scholarship from the freshmen to sophomore level is approximately 85 percent, while the upperclass level renewal rate is around 89 percent. Both of these are above the statewide renewal rates overall for PROMISE Scholarships.

What WVU offers is the ability to make your dreams come true, through a vast array of choices. We offer 185 different areas of study at the bachelor's, master's, doctoral, and professional degree levels. You can study traditional fields like journalism, engineering, and business or participate in one-of-a-kind majors like biometric systems and forensic identification. Our faculty members are known internationally for their groundbreaking research (earning $150 million in annual grants last year), yet they always have time to answer your questions.

Our tradition of academic excellence has produced 25 Rhodes Scholars so far – you could be the next! Because of the value of our degrees and highly successful alumni, our job placement rate is 100% in many majors.

We know that true education is about more than what goes on in the classroom, so our student-centered focus helps you learn more about yourself and others. WVU's Operation

Jump-Start guides students through the first year and includes faculty members who live next to the residence halls to mentor you. WVUp All Night provides free food and fun activities every weekend. Our modern Student Recreation Center has 177,000 square feet of weight/fitness equipment; two pools, an elevated jogging track, basketball, volleyball, racquetball courts, a whirlpool that seats 20, and a 50-foot indoor climbing wall. Other great facilities include the Downtown Library Complex and the Life Sciences Building. WVU combines benefits such as over 300 different student organizations to

join and a diverse student body with a safe campus located in a town ranked as the "#1 Small City in America." In West Virginia, WVU is the only school that offers all of these opportunities, and you would be hard-pressed to find this many opportunities anywhere.

WVU & West Virginia University's Promise to You

In addition to the PROMISE Scholarship, you may be eligible for other scholarships through the WVU Scholars Program. We are partnering with the state to make sure that you have ample resources to pursue your degree at WVU. We are committed to helping you reach your educational goals without burdening you with excessive student loan debt: you are allowed to receive your WVU Scholars Program Scholarship in addition to PROMISE (some exceptions may exist).

Here's how it works – your total bill for tuition, fees, and housing (if applicable) is calculated. Then, we deduct the amount of your PROMISE Scholarship and any other WVU awards from the amount you owe. If your scholarships and other funds exceed the amount of your bill, you will receive a refund check that can be used for other expenses, such as textbooks, meals, laundry, etc. For more information, visit the WVU Undergraduate Scholarship Office website.

PROMISE Frequently Asked Questions (FAQ)

1. What are the requirements to keep my PROMISE Scholarship for next year?

A PROMISE Scholarship student must complete a minimum of 30 credit hours in a twelve-month period and meet the institution's academic progress requirements. For the first year a PROMISE award is received, the applicant may be eligible for renewal if he or she has earned at least a 2.75 cumulative GPA. For following years, a cumulative GPA of no less than 3.0 is required for the renewal of the PROMISE Scholarship.

We highly recommend you review the PROMISE Scholarship website for the current renewal requirements.

2. Will Advanced Placement (AP), CLEP, or prior college credit count toward my 30 credit hours and the grade point average (GPA) requirement for renewing Promise?

No. While any AP, CLEP, or prior college credit earned while in high school may count toward your total hours at WVU, it will not count toward the 30 hours you need to complete and the GPA you must obtain to maintain PROMISE.

Courses taken prior to the first semester you receive the PROMISE Scholarship will not count toward fulfilling the renewal requirements.

This includes students who defer their PROMISE the first semester of college and attend an out of state institution. Those students enrolling as new PROMISE Scholars in the spring term will have their PROMISE academic review cycle become spring, summer, and fall (as opposed to fall, spring, summer had they enrolled as an entering PROMISE freshman the fall semester).

3. How long will I be able to renew my PROMISE Scholarship?

An eligible undergraduate student seeking a baccalaureate degree may be eligible to receive a PROMISE Scholarship for each year of a four-year degree program. Once a student graduates, or is classified as a graduate or professional student by the Office of Admissions & Records, their PROMISE eligibility ends. Students are required to be enrolled as full-time students by the end of the add/drop period each semester in order to receive the PROMISE Scholarship.

4. What are the academic progress guidelines for other scholarships?

The guidelines vary depending on the scholarship you have received. If you have received a scholarship through the WVU Scholars program, you must complete 24 credit hours each academic year and obtain the following cumulative grade point averages to keep the scholarship:

Bucklew – 3.2 first year/3.3 thereafter
University Merit – 3.2 first year/3.3 thereafter
Presidential – 3.0 first year/3.2 thereafter
Mountaineer – 2.75 first year/3.00 thereafter
GHA – 2.75 first year/3.00 thereafter
These scholarships fund four years of undergraduate education.

5. What are the academic progress guidelines for financial aid?

Students must be eligible to continue in their degree program and must make satisfactory academic progress toward obtaining a degree. Academic progress is measured at the completion of each spring semester, and the new status is effective with the following fall semester. Requirements for part-time and full-time undergraduate students are:

Successful completion of at least 70% of all hours attempted. Hours attempted includes courses with a grade of "W," "I," or "F" and all accepted transfer hours.
Minimum cumulative GPA:
Freshman (1-28 hours) 1.6
Sophomore (29-58 hours) 1.9
Junior/Senior (59 hours or more) 2.0
Some award programs have different renewal requirements.
Contact the Financial Aid Office if you need additional information.

6. May I take a leave of absence from college without losing my PROMISE eligibility?

PROMISE scholarship students who have an approved medical or family emergency leave of absence from their college of attendance may continue their scholarship upon return without loss of eligibility or benefit so long as the student continues to meet all applicable eligibility standards. If a student needs to miss an upcoming term, an official Leave of Absence can be requested through consultation with the student's academic advisor. Please follow the details noted on the WVU Leave of Absence Policy website:
http://www.arc.wvu.edu/admissions/leave.html

We highly recommend you review the PROMISE Scholarship website for current leave of absence policies.

Students who are granted an approved leave of absence will have their PROMISE academic review cycle affected. For example, a student who attends the fall semester but receives an approved leave of absence for the spring semester will become a fall academic review cycle, provided they return from their approved leave as planned. Thus, the PROMISE academic review cycle becomes fall semester, any summer work, and the next fall semester (i.e. fall 2009, summer 2010, and fall 2010). This would be the review period the student needs to earn their annual 30 credit hours and have the necessary GPA for renewal.

7. What if I plan to take Summer Session classes?

Classes taken during Summer Sessions can be counted toward your academic progress for PROMISE as a renewal student. However, PROMISE will not pay for summer coursework.

WVU offers a wide variety of courses during the summer. Visit www.wvu.edu/~summer for a complete listing of all courses available.

You may take summer courses at other institutions which transfer back to WVU in order to regain your PROMISE Scholarship. It is your responsibility to notify the Scholarship Office once you can view those grades in STAR so that they may re-evaluate your PROMISE status.

If you plan to take courses at another university or college, you must complete the Transient Application Form and obtain permission from your academic advisor.

For complete instructions on taking courses at another university, information about the Transfer Equivalency System, and a copy of the Transient Application Form, visit the WVU web site at www.arc.wvu.edu/admissions/transient.html

8. What is the PROMISE Scholarship Appeals Process?

A student granted an initial PROMISE Scholarship may appeal a non-renewal of the award. Any such appeal must be filed within fifteen (15) days of notification to the student that he or she is not eligible for renewal of the award. The appeal is to be filed with the WVU Undergraduate Scholarship Office. Only under extremely extenuating circumstances will an appeal be approved.

If the appeal of the non-renewal is denied by WVU, the student may appeal that decision to the Executive Director at the PROMISE Board. The appeal must be filed within fifteen (15) days of notification to the student of denial of the WVU appeal. The appeal must be in writing and detail, with specificity, the grounds for the appeal. The Executive Director may require additional evidence or materials be submitted. If the Executive Director denies the appeal the reasons for the denial shall be communicated in writing to the applicant with an explanation of the reason for the denial.

If a student with a PROMISE Scholarship is not eligible for renewal of the award because of failure to maintain academic progress they may not utilize the procedure set out herein to challenge any grade assigned them. Challenges to grades must be brought

under established institutional procedures for grade appeals. The process set out above may only be utilized to challenge the application of the eligibility requirements to the grade or grades assigned. If a student is successful on a grade appeal, and the changing of the grade makes them eligible for renewal, they may petition the PROMISE Board for a renewal of the award retroactively.

We highly recommend you review the PROMISE Scholarship website for current appeals process policies.

PROMISE Contact Information

PROMISE Scholarship Program
1018 Kanawha Boulevard, E., Suite 700
Charleston, WV 25301
Telephone:1.877.WVPROMISE
Fax: 304.558.3264

D/F Repeat Policy

WVU has a D/F repeat policy for undergraduate students who have not received their initial baccalaureate degree. If you earn a D or F in a course at WVU taken before you reach a cumulative total of 60 hours attempted, you are eligible to D/F repeat that course. You must meet with your academic advisor sometime during the semester in which you are repeating the course and complete the appropriate forms. You must repeat the course at WVU or one of the regional campuses. You will have only one opportunity to improve your original grade. The new grade becomes the grade that counts, even if your performance is worse than when you were originally graded. The credit hours for the course repeated will count only once in calculating your hours attempted and hours passed. When you have D/F repeated a course, the following happens:

1. The original grade is disregarded for the purpose of determining your grade-point average, hours passed, and hours earned.

2. You will get credit hours for taking the course one time. If you D/F repeat a 3 credit hour course, you get 3 credit hours, not 6 credit hours.

3. The original grade is not deleted from your permanent record.

4. The second grade is entered on your transcript and marked repeat in the semester that you repeated the course.

5. You can exercise the D/F repeat policy at any time before you receive your initial baccalaureate degree. If you get a grade of F in a course for disciplinary reasons or for cheating, the grade is not eligible for change under the D/F repeat provisions. Such a failure is indicated on your permanent record by an *F and is calculated in your grade-point average.

6. Any D/F repeated courses taken in the same academic PROMISE cycle may only be counted once as hours earned toward the minimum of 30 required.

Information About Grants

Federal Grants

Federal Pell Grant Program – Pell Grants are based on financial need, and awarded to undergraduates who have not earned a bachelor's degree. The Federal Pell Grant is the base of the financial aid package. The awards could range up to $5,550. To receive a Federal Pell Grant, the applicant must submit the Free Application for Federal Student Aid.

Federal Supplement Educational Opportunity Grant (SEOG) – Gift aid to undergraduate students based on need. Awards vary depending on the degree of need and the availability of funds. Students must maintain satisfactory progress.

State Grants and Scholarships

PROMISE Scholarship – Scholarships were awarded for the first time to students graduating from high school in 2002. Students will continue to receive the scholarship as long as they maintain as 3.0 GPA and meet the minimum completion of credit hours.

West Virginia Engineering, Science and Technology Scholarship Program – The scholarships, not to exceed $3,000 per academic year, are awarded on the basis of academic qualifications and interest in the fields of engineering, science, or technology and to commit to the pursuit of a related career in West Virginia.

West Virginia Higher Education Grants (WVHEG) – Grants awarded by the WV Higher Education Policy Commission. Applicants must apply annually before the March 1st deadline. The award amount can vary based on your FAFSA application result (expected family contribution). Awards cannot exceed the cost of tuition and fees or the student's demonstrated need.

Higher Education Adult Part-Time Grant – A grant to encourage and enable needy independent West Virginia students, who have been out of high school for at least two years and who desire to continue their education on a part-time basis at the post-secondary level. Awards are for the tuition and fee cost for three to eleven credit hours.

APPENDIX V

Helpful Information for Academic Success

TECH Collegian
Tech - Collegian@mail.wvu.edu

Advice for Freshmen

By Callie Beaver

Welcome to college. High school success, or lack of it, does not necessarily apply here. As a college freshman, you start out with a clean academic slate and a myriad of critical decisions that will impact the rest of your college experience. Many of these decisions should be centered on the best ways to pursue your academic career. Therefore, there are a few important things to remember as you begin your semester.

Photo from Squido.com

Tip #1: Attend all of your classes. I know the snooze button can be tempting, but it will pay off at the end of the semester. Most of what you need to know will come from your textbooks. Additionally, some professors will deduct points for several absences, while some will boost your grade for good attendance.

Tip #2: Take good, organized notes. Write down everything your teachers say. Just copying a few words off the board will not cut it. If you have to miss class, be sure to copy the notes from someone as soon as possible. In order to do this, get to know at least a few people from every class. Connections are important.

Tip #3: Learn to communicate well with your professors. Ask questions during or after class if you do not understand something. If you are having trouble with assigned problems or reading sections, go visit your professor during his or her office hours. Every professor at Tech is happy to help. It may seem like a crazy concept, but they do want you to pass their class.

Tip #4: Set aside designated times to study. You will find it is much easier to remember material if you dedicate time to it every single day. Tests will not seem as stressful and you may even avoid an all-nighter.

Tip #5: Do have a social life. Your entire college career cannot be focused on academics alone. However, it is important to always put your studies first - otherwise you will find yourself overwhelmingly behind.

Greek News: What is Dry Rush?

By Garrett Goosman

When freshmen come to college, it can be a completely different world from what these new students are used to. Not having your parents looking over your shoulder and watching your every move is a big change for most. You're out on your own and you're able to make your own decisions. You have the chance to experience so many great things while you're here at Tech. But there is one problem; you may not get the full college experience if you don't become sociable and meet new people.

Here is your chance to get out of your dorm room and try to start that experience today! Every semester, fraternities and sororities have a set dry rush to try to recruit individuals, like yourself - to see if you would be interested in joining their organization. Fraternities and sororities are always trying to get students to join their organization, which is called Rush. Rush is for everyone.

Rush is primarily a period when the fraternities and sororities on campus hold events where men and/or women who might be interested in joining can meet the brothers or sisters and find out more about each organization. Rush is a time when we can all get to know each other. Rush takes the form of a series of events that each organization holds independently.

Dry rush is somewhat different, during the week of dry rush - none of the organizations can drink alcohol around anybody that could be a potential member. This means, you find out about the true brothers and sisters of their organization. These events are non-alcoholic, and are designed to provide the rushes or potential members with an open atmosphere to choose the organization that suit them best.

Everyone has their stereotype of fraternities and sororities, but most of what you hear is the negative things about the organizations. You always hear about the hazing, parties, fighting, and etc. You never hear about the good things about fraternities and sororities, like the fundraisers, community service projects, philanthropy, campus services, and etc. Well here at Tech, fraternities and sororities are completely against any and all types of hazing on any individual. They won't force you to do anything that you don't feel comfortable doing, which may have been a major problem many years ago, but not anymore! So get out of your dorms rooms, meet people, and have some fun because going to any dry rush events are a perfect place to enjoy the true college experience!

WANT TO MAKE GOOD GRADES? THEN READ THIS ARTICLE.

Academic success a balancing act

By REBECCAH CANTLEY-FALK
The Herald-Dispatch
cantley-falk@herald-dispatch.com

Achieving academic success in college the past three years has been a balancing act for Pamela Hughes, a senior English major.

Hughes, a prestigious Yeager Scholar at Marshall University, attends class regularly and balances work, studying and having fun, she said.

"It's a balancing act because there are so many things for students to do with sports, organizations and work," she said. "You can do everything you want to do. You just have to manage your time."

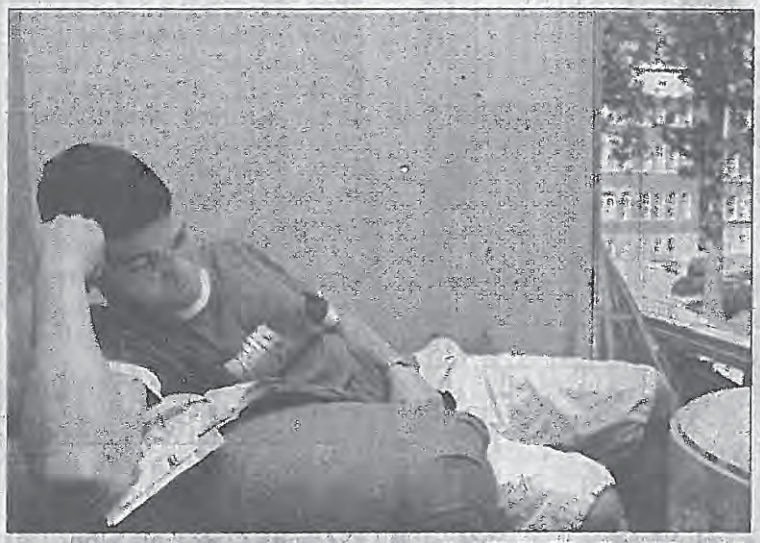
Attending class regularly, managing time and knowing when to ask for help are three of the most important steps students can take to ensure academic success, according to professors and successful students at Marshall.

Making the transition to higher education is challenging for all students, even those who were high achievers in high school, said Martha Woodward, executive director of the John R. Hall Center for Academic Excellence.

"What we find sometimes is students who made good grades in high school don't make the grades (in college) at least initially," she said. "They're not quite as good, and that can be because of a lack of study skills, time management, all sorts of things."

Three tips for success

- Attend class regularly.
- Manage your time.
- Ask for help.



Lori Wolfe/The Herald-Dispatch

Marshall student Dustin Holschuh makes himself comfortable as he studies marketing at the John Deaver Drinko Library on Wednesday at Marshall University.

Instead of panicking, students should seek help as soon as they begin to have trouble, Woodward said. Students can begin by talking with their professors, said Michelle Duncan, director of University College and the Academic Support Center.

"Tutoring is available, but the professor is going to be able to give them better tips for that class than anyone else," she said.

Many students, especially freshmen, are uncomfortable approaching their professors, Woodward said. But when students need help, there's no time to be shy.

"Most professors welcome that (questions from students,)" Woodward said. "Occasionally you run into a bad egg, but most professors are willing to help. If students will go early on and talk with the professors, they can usually work things out."

One pitfall to avoid is waiting too long before seeking assistance, Duncan said. Marshall offers free tutoring for all students. If a student knows, for example, that he or she has a weakness in math, it's a good idea to go ahead and sign up for individual tutoring, she said. Walk-in tutoring is also available in the lower level of the Community and Technical College.

"The trouble comes with postponing and saying, 'Well, it's going to become clear to me,' " Woodward said. "If it doesn't become clear in a week, then you need to consult with somebody."

Making the grade

Michelle Duncan, director of University College and the Academic Support Center, offers the following tips for time management, studying and test-taking.

TIME MANAGEMENT

Review each course syllabus.

Highlight test dates, paper deadlines, extra credit assignments and the absence policy.

Set aside at least one time period each week to plan out the next week's activities.

Review reading assignments and homework and project times and days you will do assignments.

STUDY SKILLS

Listening — Be open and willing to learn, postpone judgment, observe, reduce distractions.

Note-taking — Go to every class, sit up front, use your senses, link information, use creative shorthand, focus on key words.

Reading — Outline the main points, predict questions, pick out key words, summarize, review often.

Memory — Be observant and alert, use all the senses, make learning visual, auditory and physical, write down information, go from general to specific, recite, use repetition, summarize in your own words, teach the information to someone else, review often.

TEST-TAKING

Arrive early, organize yourself, listen to all instructions, pace yourself, review.

What Does It Take to Be Successful In College and Beyond?

By Bob Roth, the "College and Career Success" Coach

- The most successful students are going to college for a purpose. They have a goal they want to achieve. If you don't have one, set a goal for yourself: (a) obtain a great job after graduation or (b) get into graduate school.

- Successful students are highly motivated and are willing to devote the time and effort (preparation) needed to succeed.

- Successful students develop and improve a wide variety of communication skills. (Speaking, writing, presentation skills, listening, observing body language, questioning, small talk, relationship building, teaching, negotiation and persuasion. Etc.)

- The most successful students create a written "plan of action" that includes everything they need to do to achieve their goal. This is a step-by-step, action-by-action, semester-by-semester plan that leads directly to their end goal.

- Successful students are likable because they present a positive attitude to everyone they come in contact with. They demonstrate a genuine interest in others and a natural curiosity that makes other people feel good about themselves.

- Successful students overcome obstacles. They understand that there is more than one way to accomplish their goals. When they get knocked down, they pick themselves up and look for another way to accomplish their goal.

- The most successful students actively participate in on-campus, work and community activities. They take on responsibilities and accept leadership and supervisory roles.

- Successful students develop a list of significant accomplishments and positive results that they can discuss with recruiters and put on their resume (academics, campus relations, volunteer and community service, work, and leadership roles).

- The most successful students cultivate relationships with respected and influential people on campus, at work and in the community. Therefore, they obtain strong, enthusiastic references and recommendations.

- They figure out how to differentiate themselves from other qualified job candidates.

- This is often done through communication skills and accomplishments.
  For more information, visit Bob Roth's website: www.The4Realities.com. Bob Roth is the author of The 4 Realities of Success During and After College. Bob's newest book, The College Student's Guide to Landing a Great Job, is now available.

THE BASICS OF ACADEMIC SUCCESS

By Bob Roth, the "College and Career Success" Coach

Too often, students become distracted from their studies. Because they spend too much time with friends and activities, they look for shortcuts and fail to tend to the basics of academic success.

All of this may seem obvious. However, good students find themselves in academic trouble every day. To help ensure success, the best students put their classwork first, and practice the steps listed below:

a. Attend every class
b. Sit up front
c. Participate in class discussions and ask questions
d. Volunteer to lead a project
e. Be a great team member
f. Read every assignment
g. Take good notes in class
h. Identify the most important material
i. Outline the material you want to remember
j. Study from your outline
k. Identify the things you don't understand and get help
l. Devote enough time to your studies
m. Anticipate and be prepared for pop quizzes
n. Show interest in what the professor is doing. Talk after class
o. Recognize the importance of class presentations. Make them special
p. Start and finish papers and projects early
q. Ask others for opinions on papers and projects. Make changes you agree with
r. Use demonstrations, slides, handouts, displays and examples for emphasis
s. Associate and study with the best students
t. Think differentiation. How can you stand out in a positive way?

Every student who gets accepted to college has the ability to succeed. Whenever someone is faced with academic failure, it is because:

- Success wasn't all that important to them
- They weren't willing to pay the price required for success

For more information, visit Bob Roth's website: www.The4Realities.com
Bob Roth is also the author of: (i) The 4 Realities of Success During and After College
(ii) The College Student's Guide to Landing a Great Job

College Students Should Develop an Attitude of Success

By Bob Roth, the "College and Career Success" Coach

The attitude you present tells others who you are, what you are and what to expect from you. When you are viewed as having a great attitude, many more people will naturally gravitate toward you and often will be willing to help you in some way.

The most successful students, leaders and employees present an attitude that makes it clear to everyone around them that they are positive, genuine, competent, self-confident and caring. That is why every college student should come to realize that only with a great attitude can they ever reach their full potential.

Your attitude makes itself known through your words, tone of voice, actions, reactions, facial expressions, mannerisms and body language. It is revealed in every aspect of your thinking and behavior. As people read those signals, they make judgments about you and your potential for success. People with great potential are easy to recognize.

Since you choose your attitude, you may want to take a closer look at the attitude you are presenting to your friends, classroom instructors and employers. If you want to be more successful, you can choose to adopt a different attitude. Because people with an attitude of success tend to focus on eight areas, those "Elements of Success" are offered here.

1. Demonstrate Competence and Professionalism - Employers need people who are both competent and professional. No employer can survive without them. When college students can provide examples of their competence and professionalism, employers will take notice. Students in this category are willing to get their hands dirty and are quick to help others. They work hard, produce quality work, beat deadlines and achieve above average results.

2. Build and Maintain Relationships - It may surprise you to learn that most people don't succeed on their technical competence alone. No matter how competent you may be, it is unlikely that you will succeed when the people around you don't like you. Since few jobs operate in isolation, you will need others to help you succeed. When people know that you care about them, they will go to great lengths to help you.

3. Present a Positive Attitude - The most successful students and employees choose to present a "can do", "let's give it a try", "I'll do what it takes" attitude. Because of their great attitude, they influence others in a positive way. Additionally, it is their positive attitude that offers them the opportunity to overcome the obstacles that stop others in their tracks.

4. Exhibit Self-Confidence - Few people find great success without having a high degree of self-confidence. Since that confidence can be built slowly over time, students often get involved with small projects where they can make solid contributions. As those small successes accumulate, their self-confidence will increase. The more they believe in themselves, the more successes they will have.

5. Practice Continuous Learning - People with an attitude of success make a special effort to stay on top of the things that are going on in their field of interest. They recognize that they can't remain successful without learning about and utilizing the new developments, information and techniques. Whenever people fall behind in their field, they lose value.

6. Treat People With Respect - Anyone who doesn't treat others with respect, regardless of their position or status, will severely hamper their own success. Successful people look for the best in others and recognize their unique talents and strengths. They teach others, build them up and rely on them for help.

7. Develop and Expand Leadership Skills - Successful people don't do everything by themselves. They identify a worthwhile goal, stimulate interest, inspire other people to perform and lead them to a successful result. Since leadership skills can be developed and improved with practice, those striving for greater success can initially accept a few small leadership roles. Then, as their skills begin to improve, they can look for opportunities to take on larger and larger challenges.

8. Look to the Future - The most successful people look to the future. They don't dwell on their past successes and failures. Successful people focus on those few goals that will make things better in the future. People who see the future clearly will recognize the challenges and problems for what they are. They are the opportunities that the future presents to us.

"Destiny is not a matter of chance; it is a matter of choice. It is not a thing to be waited for; it is a thing to be achieved." - Jeremy Kitson

We know that success doesn't come to everyone. Too many people just don't have the right attitude. However, those who will have the greatest achievements understand that, in the end, success favors the people who earn it. That is why they closely follow the eight, rock hard elements of success. You can too!

For more information, visit Bob Roth's website: www.The4Realities.com.
Bob Roth is the author of The 4 Realities of Success During and After College.
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Secrets of Straight-A Students

Education experts and students reveal the secrets of maintaining high grades.

By Edwin Kiester, Jr., and Sally Valente Kiester
From Reader's Digest (Sept.1992)

You Can Be A Super-Achiever

Everyone knows about straight-A students. We see them frequently in TV sitcoms and in movies like *Revenge of the Nerds*. They get high grades, all right, but only by becoming dull grinds, their noses always stuck in a book. They're klutzes at sports and dweebs when it comes to the opposite sex.

How, then, do we account for Domenica Roman or Paul Melendres?

Roman is on the tennis team at Fairmont (W.Va.) Senior High School. She also sings in the choral ensemble, serves on the student council and is a member of the mathematics society. For two years she has maintained a 4.0 grade-point average (GPA), meaning A's in every subject.

Melendres, now a freshman at the University of New Mexico, was student-body president at Valley High School in Albuquerque. He played varsity soccer and junior- varsity basketball, exhibited at the science fair, was chosen for the National Honor Society and National Association of Student Councils and did student commentaries on a local television station. Valedictorian of his class, he achieved a GPA of 4.4 -- straight A's in his regular classes, plus bonus points for A's in two college-level honors courses.

How do super-achievers like Roman and Melendres do it? Brains aren't the only answer. "Top grades don't always go to the brightest students," declares Herbert Walberg, professor of education at the University of Illinois at Chicago, who has conducted major studies of super-achieving students. "Knowing how to make the most of your innate abilities counts for more. Infinitely more."

In fact, Walberg says, students with high I.Q.s sometimes don't do as well as classmates with lower I.Q.s. For them, learning comes too easily and they never find out how to buckle down.

Hard work isn't the whole story, either. "It's not how long you sit there with the books open," said one of the many A students we interviewed. "It's what you do while you're sitting." Indeed, some of these students actually put in fewer hours of homework time than their lower-scoring classmates.

The kids at the top of the class get there by mastering a few basic techniques that others can readily learn. Here, according to education experts and students themselves, are the secrets of straight-A students.

1. **Set priorities.** Top students brook no intrusions on study time. Once the books are open or the computer is booted up, phone calls go unanswered, TV shows unwatched, snacks ignored. Study is business; business comes before recreation.

2. **Study anywhere -- or everywhere.** Claude Olney, an Arizona State University business professor assigned to tutor failing college athletes, recalls a cross-country runner who worked out every day. Olney persuaded him to use the time to memorize biology terms. Another student posted a vocabulary list by the medicine cabinet. He learned a new word every day while brushing his teeth. Among the students we interviewed, study times were strictly a matter of personal preference. Some worked late at night when the house was quiet. Others awoke early. Still others studied as soon as they came home from school when the work was fresh in their minds. All agreed, however, on the need for consistency. "Whatever I was doing, I maintained a slot every day for studying," says Ian McCray, a Middlebury College student from New Jersey.

3. **Get organized.** In high school, McCray ran track, played rugby and was in the band and orchestra. "I was so busy, I couldn't waste time looking for a pencil or missing paper. I kept everything right where I could put my hands on it," he says.

   Paul Melendres maintains two folders -- one for the day's assignments, another for papers completed and graded. Traci Tsuchiguchi, a top student at Clovis West High School in Fresno, Calif., has another system. She immediately files the day's papers in color-coded folders by subject so they'll be available for review at exam time.
   Even students who don't have a private study area remain organized. A backpack or drawer keeps essential supplies together and cuts down on time-wasting searches.

4. **Learn how to read.** "The best class I ever took," says Christopher Campbell, who graduated from Moore (Okla.) High School last spring, "was speed-reading. I not only increased my words per minute but also learned to look at a book's table of contents, graphs and pictures first. Then, when I began to read, I had a sense of the material, and I retained a lot more."

In his book *Getting Straight A's*, Gordon W. Green, Jr., says the secret of good reading is to be "an active reader -- one who continually asks questions that lead to a full understanding of the author's message."

5. **Schedule your time.** When a teacher assigns a long paper, Domenica Roman draws up a timetable, dividing the project into small pieces so it isn't so overwhelming.

   "It's like eating a steak," she says. "You chew it one bite at a time."

   Melendres researches and outlines a report first, then tries to complete the writing in one long push over a weekend. "I like to get it down on paper early, so I have time to polish and review."

   Of course, even the best students procrastinate sometimes. But when that happens, they face up to it. "Sometimes it comes down to late nights," admits Christi Anderson, an athlete, student-council member and top student at Lyman High School in Presho, S.D. "Still, if you want A's, you make sure to hit the deadline."

6. **Take good notes** -- and use them. "Reading the textbook is important," says Melendres, "but the teacher is going to test you on what he or she emphasized. That's what you find in your notes."

   The top students also take notes while reading the text assignment. In fact, David Cieri of Holy Cross High School in Delran, N.J., uses "my homemade" system in which he draws a line down the center of a notebook, writes notes from the text on one side and those from the teacher's lecture on the other. Then he is able to review both aspects of the assignment at once.

   Just before the bell rings, most students close their books, put away papers, whisper to friends and get ready to rush out. Anderson uses those few minutes to write a two- or three-sentence summary of the lesson's principal points, which she scans before the next day's class.

5 More Secrets

1. **Clean up your act.** Neat papers are likely to get higher grades than sloppy ones. "The student who turns in a neat paper," says Professor Olney, "is already on the way to an A. It's like being served a cheeseburger. No matter how good it really is, you can't believe it tastes good if it's presented on a messy plate."

2. **Speak up.** "If I don't understand the principle my teacher is explaining in economics, I ask him to repeat it," says Christopher Campbell. Class participation goes beyond merely asking questions, though. It's a matter of showing intellectual curiosity.

   In a lecture on capitalism and socialism, for example, Melendres asked the teacher how the Chinese economy could be both socialist and market-driven, without incurring some of the problems that befell the former Soviet Union. "I don't want to memorize information for tests only," says Melendres. "Better grades come from better understanding."

3. **Study together.** The value of hitting the books together was demonstrated in an experiment at the University of California at Berkeley. While a graduate student there, Uri Treisman observed a freshman calculus class in which Asian-Americans, on average, scored higher than other minority students from similar academic backgrounds. Treisman found that the Asian-Americans discussed homework problems together, tried different approaches and explained their solutions to one another.

   The others, by contrast, studied alone, spent most of their time reading and rereading the text, and tried the same approach time after time even if it was unsuccessful. On the basis of his findings, Treisman suggested teaching group-study methods in the course. Once that was done, the groups performed equally well.

4. **Test yourself.** As part of her note-taking, Domenica Roman highlights points she thinks may be covered during exams. Later she frames tentative test questions based on those points and gives herself a written examination before test day. "If I can't answer the question satisfactorily, I go back and review," she says.

   Experts confirm what Roman has figured out for herself. Students who make up possible test questions often find many of the same questions on the real exam and thus score higher.

5. **Do more than you're asked.** If her math teacher assigns five problems, Christi Anderson does ten. If the world-history teacher assigns eight pages of reading, she reads 12. "Part of learning is practicing," says Anderson. "And the more you practice, the more you learn."

   The most important "secret" of the super-achievers is not so secret. For almost all straight-A students, the contribution of their parents was crucial. From infancy, the parents imbued them with a love for learning. They set high standards for their kids, and held them to those standards. They encouraged their sons and daughters in their studies but did not do the work for them. In short, the parents impressed the lessons of responsibility on their kids, and the kids delivered.

What Student Support Services Does For You
Let Us Count The Ways – *All For Free!!!*

Our number one reason for existence is to help you be successful in college. We encourage you to achieve your educational goals for undergraduate school and plan effectively for your professional future. Student Support Services offers you a place to come for encouragement, help or just a friendly ear. Student Support Services staff is always interested in you and your success in achieving <u>your</u> educational goals.

1. We offer you FREE TUTORING in individual or small group sessions. You may receive tutoring each week for each class in which you need help. We have a Professional Math Tutor as well as student tutors. We make every effort to arrange tutoring for each subject in which you need help. Tutoring is arranged around your schedule.

2. To assist you in developing your educational strengths and life/career goals, we offer free testing and evaluation for you in the area of Study Skills Strategies and Learning Styles.

3. We offer you a variety of career planning activities. We use the Myers-Briggs Temperament Inventory (MBTI). This personality/career examination advises you about your ideal self. SSS offers you all the relative materials you need to determine your own destiny. This test often helps you make up your mind about a major and even graduate school plans. Frequently this testing confirms that you are already on the right track for you. We also offer the Strong Career Inventory at your request.

4. Should you have a physical/learning disability, SSS helps you get the services you need to succeed. First, you must see the WVU Disabilities Specialist when she is on this campus. She will determine what accommodations you need. SSS then helps you by offering assistance with some of these services such as proctoring tests, helping with a note taker, etc. (Each person is unique and may have special requirements.) We help you with the strictest standards for confidentiality. We respect your need for privacy as much as we respect your need for help.

5. We keep you updated on subjects of special interest to most college students. In surveys with Tech students we have learned that you want to know more about Stress Management, Time Management, Test Taking Skills, Overcoming Test Anxiety, Success in College, Life Skills, Graduate and Professional School Planning.

6. We offer you special days or evenings off campus as "CULTURAL ENRICHMENT ACTIVITIES."

7. As one of our students you <u>*may*</u> be eligible for special recognition, **scholarships** or entrance to programs not offered to other students. For example, the Ronald E. McNair program offers specialized preparation for graduate education during the summer for five weeks on another college campus.

8. You have the services of a fully Licensed Professional Counselor (LPC) who is available to listen to your problems privately, however big or small, at your request and at no cost.

9. We have graduate school entrance examination (GRE, PMAT and GMAT) study programs for you to use.

10. Student Support Services is conveniently located to serve you in the center of WVU Tech's campus in Old Main on the third floor.

11. FOR ANY OF OUR SERVICES, ALL YOU HAVE TO DO IS ASK. Student Support Services – we're here for you! *Free!!! Free!!! Free!!!*

GUIDELINES FOR COMPLETING HOME WORK ASSIGNMENTS

(These are general guidelines adopted by a majority of engineering professors at Tech and may very well be useful in other courses also.)

An Engineer's work is almost always reviewed and used by a number of people such as his/her peers and supervisors. The work, for instance, in the form of a product report or computations related to a design, is therefore expected to meet established professional standards with regard to completeness, layout, neatness etc. Home work assignments in engineering have two objectives: (i) to understand concepts by applications and (ii) to develop good work habits while you are still in college. Past experience with hundreds of engineering students indicates that you can succeed in achieving these objectives to a large degree if you adopt the following steps in your assignments.

1. Each sheet should carry your name, date and consecutive numbers if more than one sheet it used. Staple all sheets together.
2. Keep your work as tidy as possible. Use good quality engineering paper and write on one side of the paper only. Avoid using papers pulled out of a spiral bound notebooks. Writing with a No.2 pencil improves neatness.
3. Include neat sketch(s), drawn using drafting equipment (such as a straight edge and a circle template,) wherever applicable. Engineers are used to dealing with neat sketches and figures. In order to encourage this habit, free hand sketching will not be accepted in home work assignments. A penalty may be imposed for not including neatly drawn figures in home work assignments.
4. Write down all literal equations in their general forms first and then substitute numerical values. Do not place units in numerical equations. If you want to conduct a check on units, use a separate dimensional equation.
5. Show all necessary/possible intermediate steps and calculations for full credit.
6. Follow a logical order in arriving at the final answer. Mere numerical answers will not be accepted as full solutions.
7. Do your own work. Cheating will not be tolerated. All persons involved in duplicated/copied homework will receive a ZERO grade irrespective of who copied from whom. This policy will be enforced vigorously by most instructors. To discourage cheating, some instructors may retain copies of all assignments that appear to be duplicate copies or suspicious.
8. Do not be too brief in your home work. Home work is meant to develop good professional work habits as well as to understand the subject material. The more time you spend on your home work, the easier it will be to follow subsequent topics.
9. Include units with all numerical values. A penalty may be assessed every time you miss units. It applies to home works, quizzes, tests and examinations.
10. Mark or circle all your answers.
11. An unjustified number of '*significant*' figures should not be used. Usually three significant figures are considered satisfactory in engineering calculations.
12. Home work is due usually during the following class meeting, unless the instructor decides on another due date. Requests for excuses will be considered if a delay is necessary due to unavoidable or unforeseen causes such as illness, car problems, etc. The instructor may require documentary proof of such problems.

WEST VIRGINIA UNIVERSITY INSTITUTE of TECHNOLOGY ARMY ROTC

Scholar Athlete Leader

WHAT IS ARMY R.O.T.C?

The Army Reserve Officers' Training Corps (ROTC) is an elective course that provides a combination of academics and important hands-on training. You will be offered physical and mental challenges geared to help you succeed in college and beyond. You will learn teamwork and be given responsibilities like teaching younger cadets the same skills you have learned. You will also get paid while becoming a leader. All Cadets contracted to become Army Officers earn approximately $3,000 - $5,000 annually while enrolled in ROTC.

LEADERSHIP DEVELOPMENT

Army ROTC enhances your college experience by providing training that will make you motivated, confident, and ready to lead. You will have practical instruction in such areas as organizational leadership, communication, and time management. The skills you learn will be ones that benefit you for your entire life, whether you want to be a career military officer, or a business executive. ROTC also offers opportunities and challenges that can put you on the fast track to success in life. You will develop the confidence, self-esteem, motivation and leadership skills you will need regardless of your career plans. The qualities that ROTC training instills will be vital to a productive and rewarding future.

ARMY OBLIGATION

There is NO obligation to the United States Army simply by taking courses in Army ROTC. Enrolling for this course offers you a great opportunity to learn about the United States Army. You will also gain valuable leadership experience, meet a wide variety of new people, and be able to add this course to your resume when you graduate. Our program is growing each year with numerous individuals gaining a minor in military science as well as becoming commissioned officers in the United States Army. Non-scholarship cadets incur no obligation during the first two years (the Basic Course) of Army ROTC. At the beginning of their junior (Military Science III) year, non-scholarship cadets agree to accept a commission in the U.S. Army upon completion of the required academic and military courses. Four-year scholarship cadets may withdraw from the program prior to their sophomore year, incur no military service obligation and do not have to pay back their scholarship benefits. Four-year and three-year scholarship cadets incur a military service obligation beginning their sophomore year. Two-year scholarship cadets incur a military service obligation beginning their junior year.

SCHOLARSHIPS

Scholarships are awarded according to merit and not based on any financial need. Scholarships are awarded to the most outstanding applicants. In keeping with our high standards of excellence, candidates are selected for merit-based scholarships on their scholastic achievement, leadership and extra-curricular accomplishments. In addition to the awarded scholarship, each winner receives a flat rate of $900 annually for books, supplies and equipment, and $3,000 - $5,000 annually in spending money. WV State University ROTC presently has numerous scholarships available for incoming freshman and for students already here.

ARMY SCHOOLS

In the summer, selected cadets may attend special skill-qualification training at Regular Army schools. This includes Airborne School at Fort Benning, Georgia, Air Assault School at various locations, to include Hawaii, and Northern Warfare School in Alaska. Also, selected cadets can be assigned to a Regular Army unit for a three- or five-week period after Leader Development and Assessment Course. During Cadet Troop Leader Training (CTLT) the cadet functions as a Second Lieutenant in a real Army unit. All of these programs give the attending cadet experience that is valuable throughout an Army or civilian career.

ARMY BENEFITS

Whether an officer stays in the Army for only the few years of the initial service obligation, or for a full career, there are many benefits to be enjoyed. The Army offers a competitive starting salary for new college graduates. The current annual compensation for a new Second Lieutenant is approximately $37, 699 and increases to over $61,190 in four years. Depending on the duty assignment of the officer, additional income may be received. Pay increases are given with promotion and at certain time-in-service steps. In addition to competitive pay, the Army offers excellent benefits. These benefits include health care, thirty days paid vacation, retirement after 20 years, legal assistance, shopping facilities, recreation programs and facilities, etc.

FREQUENTLY ASKED QUESTIONS

Q. How much time does ROTC take?
First and Second Year (Basic Course) cadets take a two credit hour Military Science class and a one credit hour Leadership Laboratory each week. Scholarship cadets participate in an additional one credit hour course of physical training (PT) each week. For non-scholarship cadets PT is optional, but is encouraged. Varsity athletes may be exempt from PT (on a case by case basis). Cadets also attend one weekend field training exercise (FTX) each semester. Third and Fourth Year (Advanced Course) cadets take a two credit hour Military Science class, a one credit hour Leadership Laboratory class each week and a one credit hour course of physical training (PT) each week. Advanced Course Cadets also attend one weekend field training exercise (FTX) each semester. Third year cadets attend a five-week Leader Development and Assessment Course, in the summer between their third and fourth year. Cadets hold the leadership positions within the Cadet Battalion and perform many of their duties outside normal class periods.

Q. Can I still participate in other activities?
Absolutely. ROTC does not interfere with regular college programs. It is not a major, but a series of elective courses. ROTC cadets participate in extra curricular activities, sports, and community service organizations. Some take second academic majors, academic minors, and participate in overseas exchange programs.

Q. I am interested in ROTC, but I do not think I want to go on active duty. What can I do?
You could apply for a Guaranteed Reserve Forces Duty (GRFD) contract. This can be either non-scholarship or scholarship. The scholarship still has all the benefits of an active duty scholarship, however, your service to the Army would be in a local Army Reserve or National Guard unit where you reside.

Q. Do Military Science courses count toward graduation?
Absolutely. All ROTC grades are included in your GPA.

Q. I'm already a sophomore. Is it too late for me to enroll?
Not at all. You have two options. First, you could "compress" the first two years of Military Science by taking both first and second-year classes in the second year. If you cannot complete all the courses, we can send you to ROTC Leader's Training Course (LTC) in the summer between your second and third year. This is a five-week summer training camp at Fort Knox, Kentucky that enables you to enter the Advanced Course. In fact we even have an accelerated course that you could take at the start of your junior year.

Q. I want to get my Masters/Professional Degree before going on active duty. Can I do that?
Yes. During your senior year, you can request an educational delay to continue your studies before going on active duty. This is a competitive program and is normally granted only to those students pursuing a technical or professional degree such as law school or medical school.

Q. Will I have to attend Basic Training (Boot Camp)?
No. ROTC cadets do not attend Basic Training. In fact, as an ROTC cadet you will not be "in the Army." You can participate in ROTC as a non-scholarship cadet your freshman and sophomore years without any obligation. This means if ROTC isn't for you, you can withdraw without incurring a military service obligation.

INSTRUCTORS

Professor of Military Science

Battalion Training and Operations Officer

Battalion Senior Sergeant

Battalion Training and Operations NCO

Enrollment & Contracting Officer

Assistant Training and Operations NCO

If you are interested in a professional career as an Army Officer in the National Guard, the US Army Reserves, or the Active Army, please contact our **Scholarship** and **Enrollment Officer**, Mr. Gordon Ramey at gramey@wvstateu.edu, (304) 766-3295.

Detailed Current Information is also available at:
http://www.goarmy.com/rotc/scholarships.html

WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY RESERVE OFFICER TRAINING CORPS

ELIGIBILITY.
-Be a US Citizen
-GPA of 2.5 or higher
-Minimum SAT/ACT 920/19
-Pass Department of Defense Physical and Fitness Test

THE SCHOLARSHIP.
-Full Tuition
-$Monthly Stipend of $300-500 (pocket $$)
-$1200 a year for books

THE EDUCATION.
-Premiere military instructors who are educated, trained, and experienced in the art of leadership.
-Classes include:
*Leadership and Management (freshmen)
*Leadership and Teamwork (sophomores)
*Leadership and Tactics Theory (juniors)
*Officer ship (seniors)
*Leadership Lab (all)

THE TIME.
-One hour class (2 credits) twice a week
-One 2 hour leadership lab (1 credit) once a week
-Three hours of physical fitness (can be waived for athletes)

THE COMMITMENT.
-Non-scholarship students can participate in ROTC **without any service obligation** up to their junior year.
-Non-scholarship students who contract will serve 4 years active duty
-Scholarship students (2, 3, or 6 year) will serve 4 years active duty-students who chose to go National Guard will serve 8 years in the National Guard

For more information contact CPT Scott Bossie at (304) 389-1985.

Looking Back:

One Year Later— Comparing Tech and WVU

By Kaci Foster-Veazey, Former Tech Collegian Editor

One year ago, while still a student at Tech, I compared the school with WVU. It was during the mist of controversy, because there was talk of integrating the schools. Now, I am a WVU graduate student and have a better grasp on the differences and similarities.

In summarizing, I still believe Tech is the better school. However, I am not as harsh in my opinion of WVU. Most of the professors in my department are extremely helpful and the library is wonderful.

Still, the people are different. Tech has "hometown hospitality". Though there are students from other states and countries, it is a nice blend. Everyone knows each other and it is so easy to get involved in school activities. WVU, on the other hand, is a totally different story. Being from southern West Virginia, I've encountered numerous students who are judgmental in the way that I speak and act. I've gotten agitated at the comments, "I can't understand you because your accent is too thick" and "Could you repeat yourself?" Most of the time, even students that are from northern West Virginia ask if I am from Kentucky, Georgia, or even Germany. Surprisingly, many have never heard of Fayette County. I've found myself in a cluster of students from closer to home, such as Charleston. This is only because we understand each other.

Parties are definitely different at WVU. When I was a student at Tech, they occurred on Wednesdays and Thursdays. At WVU, it is every night and sometimes in the day. The neighbors have started growing what I refer to as a "beer tree" outside of my apartment. They drink and throw their bottles on top of a small tree. One morning, I awoke to thirty or more bottles surrounding it. This may not be totally the students' fault, but a result of the lack of control (or lack of effort) the police department and other authorities have. Just the other day, my home was hit by a bottle-rocket that someone lit in the parking lot. Though authorities have been called, no action has been taken.

Even though the dorms were what I considered "dreadful" at Tech, they are considerably pleasant compared to the living quarters at WVU. Mice, drunks, and noisy/dirty/mean dogs are my biggest complaint. My husband and I live in a two-room apartment. The rent is $560 per month and I literally cried when I saw it. I had two hang up a shower curtain to separate the toilet from the bed. My neighbor's apartment was flooded when the people above us forgot to turn off their water faucet. Fred, the residential mouse, has been scurrying and gnawing in our walls for three months. After the fifth call, maintenance set a mouse trap in the middle of our floor. Fred is still alive and I am sure his family will soon join him. When our neighbor's dog hears Fred, he starts to bark. The barking continues for hours, as does the other dogs in the neighborhood. With all these dogs around, needless to say, all visitors must dodge their presents when entering the apartments. At the end of the day, when scraping doggie doo off my shoe, I often wish I lived in Ratliff again.

While at WVU, I believe that I have turned into quite a "nerd". The library is excellent. I can spend hours in the West Virginia Collection, looking at microfilm and old books. The librarians are extremely nice, too. This is where I find the most comfort. I highly recommend anyone who is interested in history to stop by the library and check it out.

Being a graduate student, the classes are a lot smaller than others. Some of my classes have only five or six students. It reminds me a lot of Tech. However, this is an exception. My husband has encountered courses where he lacks that one-on-one attention, since he is an undergraduate. He finds the classes exceptionally harder, since it is difficult to ask for help.

The Mountainlair at WVU is a nice change from Montgomery. The restaurants include Sbarro's, McCoy's, Hatfield's, a Chinese restaurant (not as good as the one in Montgomery), and a coffee shop. Sometimes, it's a pleasant change not to have to walk in the rain to buy a meal. But still, I often crave a calzone from Frank's.

As far as student organizations, Tech fairs much better. While at Tech, I participated in a multitude of extracurricular activities, including the SGA and SAB.

It's so difficult to join groups such as these at WVU. There are so many people and too much competition. Plus, the people are mainly down-right rude. When I first arrived at WVU, I asked about the student government and felt as if I was snubbed. One person told me, "The SGA thinks they rule the world here." From the way they have acted with me, I think that is what they truly believe. My advice: If you are planning on going to graduate school and want to, sometime in the future, participate in a student organization, do it at Tech. You probably won't get the chance later on.

I interviewed Charleston native and fellow WVU student, Woody Sweeney, to get his opinion of the differences between the schools. He stated, "People here (WVU) are very busy. They always have something else to do or go. People at a smaller school, like Tech, have better relationships with other students. This is because it is more personable. Here, we just have acquaintances. You have a class with someone and that is how you know them or when you speak to them. At Tech, you can grow to know people. You are around them more and see them more often. At WVU, you may hardly see someone even if you have the same major. As far as extracurricular activities at WVU, it is more like applying for a job. If someone is interested in participating, they have to put forth that effort and take the chance that they may not get it. At a small school like Tech, there is less competition and more opportunities for underclassmen."

One of the biggest pros for WVU is the location. It is near the Pennsylvania border, so it is easy to travel across the state line for employment purposes. Also, there are malls and numerous job opportunities for students. Those are things that Montgomery, unfortunately, lacks.

In conclusion, I've tried not to be biased in this article. Both schools possess good qualities. However, I feel that students at Tech should appreciate what they have—a great learning environment with one-on-one attention, the advantage to meet others in a small school atmosphere, the opportunity to excel in extracurricular activities, and no residential mice or beer trees.

APPENDIX VI

Economical Benefits of a College Degree in Mechanical Engineering

College degree = $650,000 more in earnings

By **Tami Luhby, CNN,** March 9, 2012

PHOTO: DIGITAL VISION/THINKSTOCK

Enjoy the extra cash.

How would you like to earn an additional $650,000?

Then go to college.

Typical college grads earns about $650,000 more than their peers who just have a high school diploma over the course of a 40-year career, according to a Pew Research Center analysis of census and college expense data.

A worker with a bachelor's degree earns about $1.4 million, on average, while a high school grad makes about $770,000.

Of course, it takes some cash to go to college so that has to be figured into the equation. After accounting for the time and cost of higher education, the gain is about $550,000 -- assuming one went to a four-year public university in one's home state.

Earnings, however, vary widely by major and field. Workers with at least a bachelor's degree who majored in engineering earn about $1.9 million during their careers, while those who studied education would earn on average about $1.1 million.

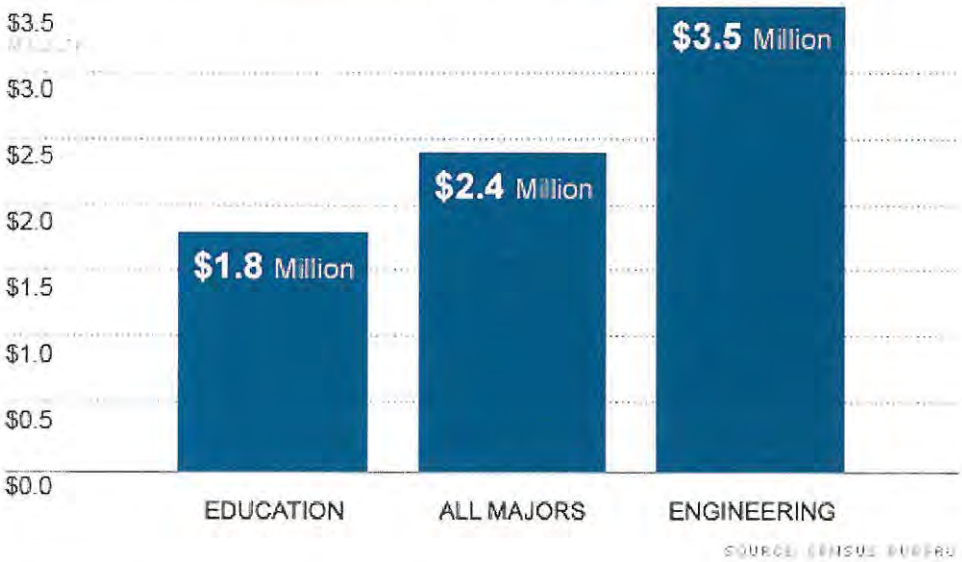
The payoff for a college education increased substantially during the 1980s and then either increased slightly since the early 1990s or plateaued, Pew says.

CNNMoney

Choice of college degree can cost you millions

(AN ENGINEER'S LIFE-TIME EARNINGS CAN TOP $3 M)

By Tami Luhby @CNNMoney October 16, 2012: 9:41 AM ET



Lifetime earnings by major

NEW YORK (CNNMoney) -- Want to make $3.5 million? **Major in engineering.**

That's how much those who graduate with an engineering degree can expect to earn over a 40-year career, according to new **Census Bureau** data.

Which major earns the least? Education, which comes in at $1.8 million. That's even lower than arts majors, who can expect to earn $2 million.

Typical college graduates can expect to take home $2.4 million during their career.

The Census calculated this data by taking the median earnings for each group in various age increments between 25 and 64.

Of course, the occupation one selects can also have an impact on earnings. Engineers working in management earn $4.1 million over their lifetimes, while those working in education, only $1.8 million. Education majors who pursue computers or math jobs can earn $2.6 million, while those in the service sector make only $1.3 million -- less than people with only high school degrees, the Census Bureau said.

Those with master's degrees can expect to earn $2.8 million over their career, while doctorate degree holders take home $3.5 million. People with professional degrees earn the biggest bucks, $4.2 million.

Women earned less than men in every field of degree. And earnings tended to be higher for those who worked in the private sector rather than the government, except for educators, where the reverse was true. ■

CNNMoney.com

Best-paying College Major: Engineering

By Blake Ellis, staff reporter, April 25, 2011: 2:23 PM ET

NEW YORK -- Engineering majors continue to boast fatter salary offers than their peers, according to the most recent survey from the National Association of Colleges and Employers.

Majors in the engineering field dominated the association's list of top-paying degrees for the class of 2011, with four of the top five spots going to engineering majors. Each of these majors receive average starting salary offers of more than $60,000.

major among the top five was computer science, which earned graduating students average starting salary offers of $63,017.

"The entire top-10 list underscores the interest employers have in hiring technical majors," said Marilyn Mackes, NACE executive director.

And the interest in these majors isn't new. Engineering majors in **last year's** graduating class were also promised the most attractive salaries.

Chemical engineers were offered the highest starting salaries this year -- an average of $66,886. **Mechanical Engineers received salary offers averaging $60,739 (second highest among all engineers),** and electrical and communications engineering majors saw average offers of $60,646. Computer engineering was the fifth highest-paying major, with offers averaging $60,112.

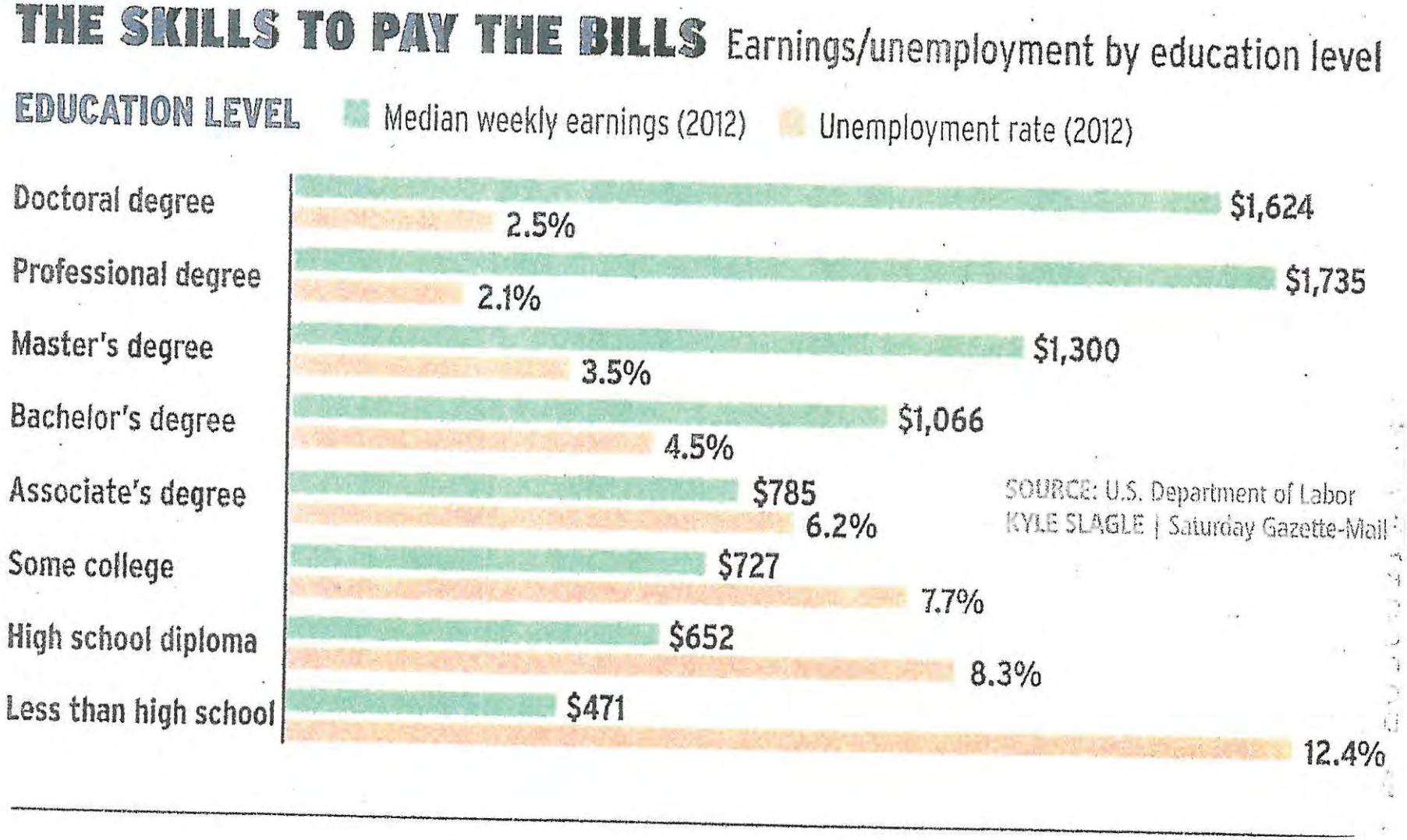
Rounding out the top ten best-paying majors were industrial engineering, systems engineering, engineering technology, information sciences and systems, and business systems networking or telecommunications.

College degrees that don't pay

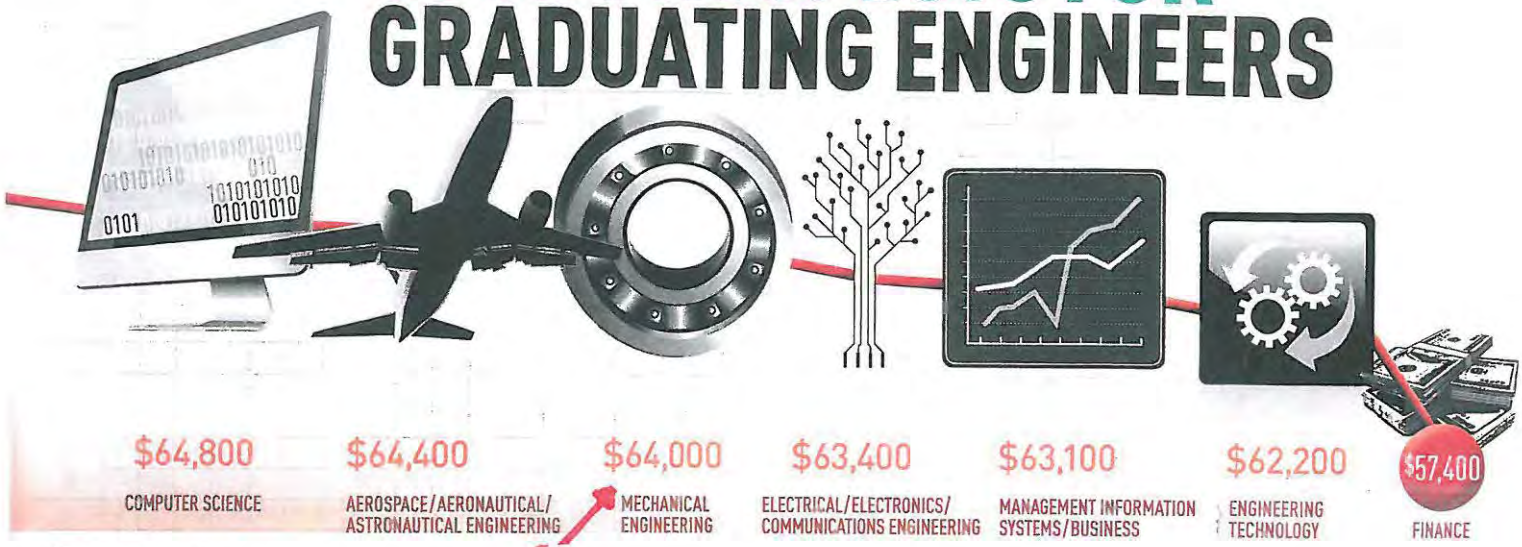
But even non-engineering majors are seeing more attractive offers this year, NACE reported in February.

While not quite the $60,000-plus offers that engineers are getting, the average starting salary **across all majors** is $50,034 -- up 3.5% from last year.

The survey, issued quarterly, monitors salary offers of graduating college students in 70 disciplines at the bachelor's degree level. NACE collects data from college career service offices nationwide.


THE SKILLS TO PAY THE BILLS Earnings/unemployment by education level
EDUCATION LEVEL
Median weekly earnings (2012)
Unemployment rate (2012)
Doctoral degree
$1,624
2.5%
Professional degree
$1,735
2.1%
Master's degree
$1,300
3.5%
Bachelor's degree
$1,066
4.5%
Associate's degree
$785
6.2%
Some college
$727
7.7%
High school diploma
$652
8.3%
Less than high school
$471
12.4%
SOURCE: U.S. Department of Labor
KYLE SLAGLE | Saturday Gazette-Mail

GOOD PROSPECTS FOR GRADUATING ENGINEERS



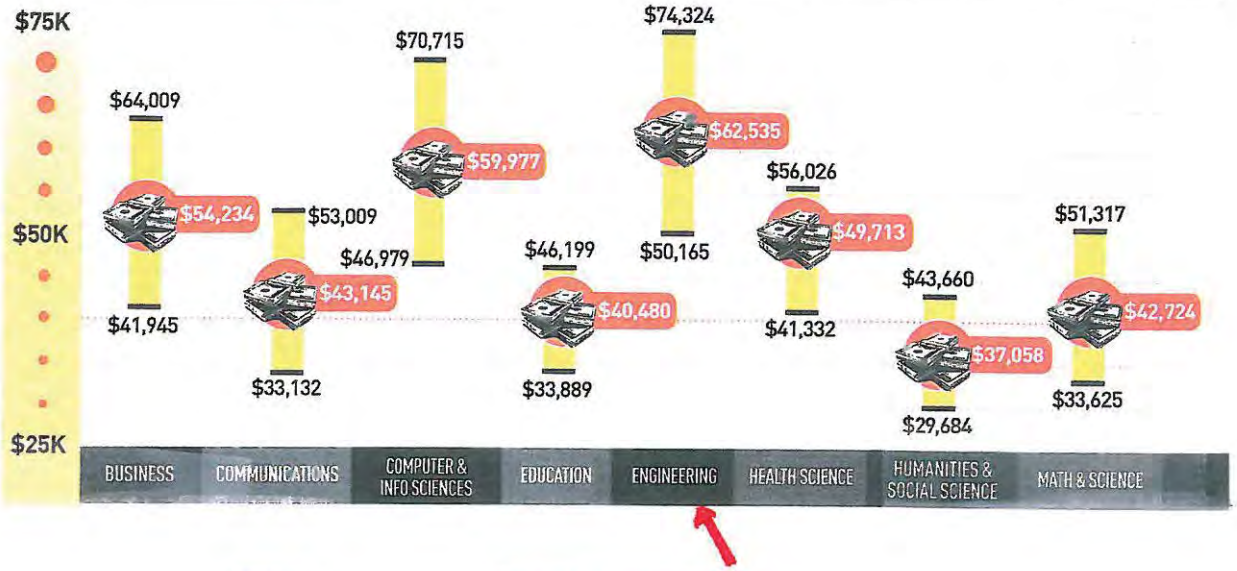
$64,800	$64,400	$64,000	$63,400	$63,100	$62,200	$57,400
COMPUTER SCIENCE	AEROSPACE/AERONAUTICAL/ ASTRONAUTICAL ENGINEERING	MECHANICAL ENGINEERING	ELECTRICAL/ELECTRONICS/ COMMUNICATIONS ENGINEERING	MANAGEMENT INFORMATION SYSTEMS/BUSINESS	ENGINEERING TECHNOLOGY	FINANCE

GRAPH 02

STARTING SALARY RANGES BY DISCIPLINE

SOURCE: *January 2013 Salary Survey, National Association of Colleges and Employers*

GRAPH 2 Engineering pays well. The median salaries shown here are bracketed by the top and bottom 25 percent of accepted salaries in each discipline.

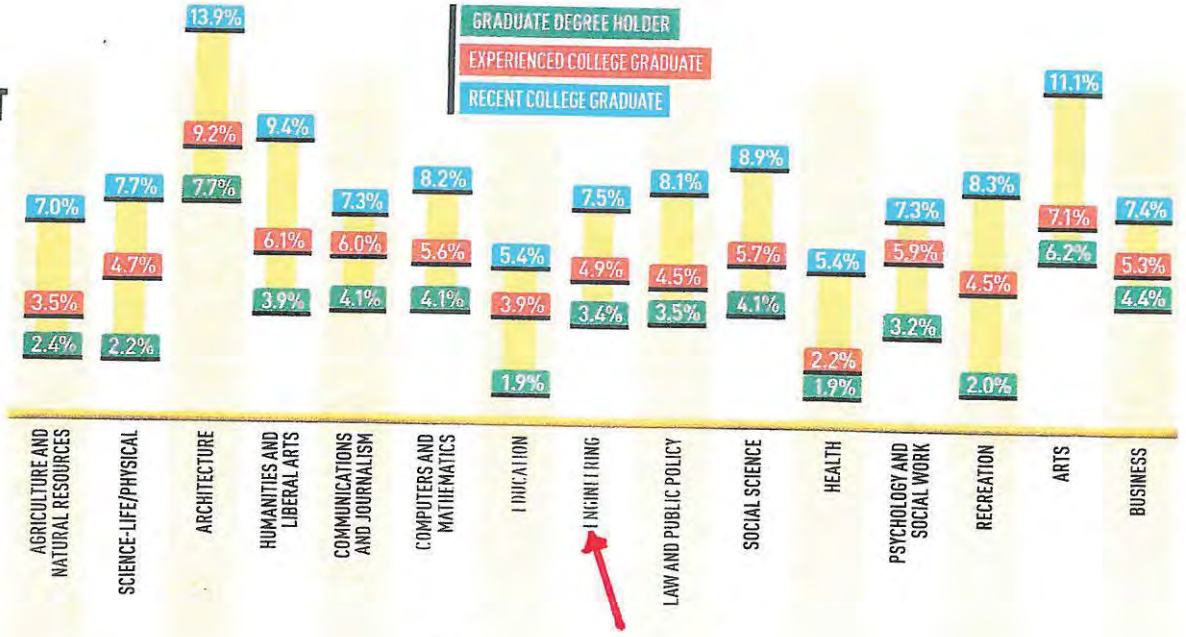


GRAPH 03

UNEMPLOYMENT RATES AMONG GRADUATES

SOURCE: *Center on Education and the Workforce, Georgetown University*

GRAPH 3 While some recent engineering graduates may struggle to find a job, unemployment declines with experience and advanced degrees.



Money Moves CNNMoney (New York) First published May 7, 2015

Top 10 highest-paying college majors

by Emily Jane Fox @emilyjanefox May 7, 2015

Here's a shocker: Nine out of the 10 highest-paying college majors are in engineering fields.

The top-paying degree is petroleum engineering, according to a new report from The Georgetown University Center on Education and the Workforce. The report, which used 2013 Census data, found that workers who graduated with this degree made a median annual salary of $136,000 each year.

The second-highest -- pharmacy, pharmaceutical sciences and pharmaceutical administration -- is the only major among the top 10 that doesn't have anything to do with engineering. Those graduates earned $113,000 annually. The report analyzed annual wages for 137 college majors. It found that after a year, the salary difference between the highest- and lowest-paying major is $97,000. Over the course of a lifetime, it's a difference of $3.4 million. **While engineering majors are the highest paid**, business management and administration is the most common major, making up 8% of all college-educated workers. Business majors, combined with science, technology, engineering and math majors -- the so-called STEM fields -- account for 46% of all college graduates. And these days, you find fewer people majoring in something your grandfather would say won't get you a job. The report said that four out of five college graduates majored in a career-focused field. Read the full top 10 list below.

Highest-paying college majors

Rank	Major	Median annual wages (age 25-59)
1	Petroleum engineering	$136,000
2	Pharmacy*	$113,000
3	Metallurgical engineering	$98,000
4	Mining and mineral engineering	$97,000
5	Chemical engineering	$96,000
6	Electrical engineering	$93,000
7	Aerospace engineering	$90,000
8	Mechanical engineering	$87,000
9	Computer engineering	$87,000
10	Geological and geophysical engineering	$87,000

*Includes pharmaceutical sciences and pharmaceutical administration.
Source: Georgetown University Center on Education and the Workforce; Graphic: CNNMoney

The 30 Best Paying College Majors for 2016

The salary rankings are based on data collected by PayScale from more than 1,000 universities and 319 bachelor's degrees

Jobs in science will take students on the path to success if high pay is what they are seeking, according to the latest rankings of bachelor's degrees from PayScale.com. Almost all of the 30 majors with the best starting salaries are in the sciences, with many involving engineering of one type or another. The one outlier on the list is dental hygienist, although earnings growth for that occupation slows a bit by mid-career. The rankings below are based on data collected by PayScale from 1,063 universities and include graduates with bachelor's degrees in 319 disciplines. The universities surveyed include 89% of U.S. schools with an enrollment of more than 5,000 and 64% of schools with enrollment over 1,000.

By Dan Berman Contributing Editor, ThinkAdvisor.

Rank	Major	Starting Salary	Mid-Career Salary
30.	Architectural Engineering	$58,000	$88,000 (63rd)
29.	Industrial Distribution	$58,100	$106,000 (16th, tie)
28.	Business Information Systems	$58,600	$87,400 (65th)
27.	Actuarial Mathematics	$58,800	$119,000 (3rd)
26.	Electrical Engineering Technology	$59,800	$88,600
25.	Manufacturing Engineering	$60,400	$94,000 (39th)
24.	Electronics Engineering	$60,700	$96,700 (33rd)
23.	Biomedical Engineering	$60,900	$96,400 (34th, tie)
22.	Mechanical & Aeronautical Engineering	$61,100	$108,000
21.	Packaging Science	$61,500	$88,100 (62nd)
19.(Tie)	Software Engineering	$62,500	$96,800 (32nd)
19.(Tie)	Mechanical Engineering	$62,500	$102,000 (20th, tie)
18.	Industrial Engineering	$62,800	$99,600 (26th)
17.	Computer Science & Mathematics	$62,900	$107,000
15.(Tie)	Engineering Management	$63,100	$96,400 (34th, tie)
15.(Tie)	Computer Science	$63,100	$105,000 (18th, tie)
14.	Materials Science & Engineering	$64,600	$105,000
13.	Aerospace Engineering	$64,800	$107,000 (14th, tie)
12.	Electronics & Communications Engineering	$65,000	$105,000
11.	Aeronautical Engineering	$65,100	$113,000 (9th)
10.	Dental Hygiene	$65,800	$72,800 (146th, tie)
9.	Electrical Engineering	$66,500	$108,000 (12th, tie)
8.	Electrical & Computer Engineering	$67,000	$114,000
7.	Systems Engineering	$67,100	$114,000 (7th, tie)
6.	Nuclear Engineering	$68,200	$121,000 (2nd)
5.	Computer Engineering	$68,400	$109,000 (10th, tie)
4.	Computer Science & Engineering	$69,100	$115,000 (6th)
3.	Chemical Engineering	$69,500	$118,000 (4th)
2.	Mining Engineering	$71,500	$109,000 (10th,tie)
1.	Petroleum Engineering	$101,000	$168,000 (1st)

Charleston Gazette-Mail

Editorial: WVU-Tech may be the best choice of all

June 26, 2014

Despite a slow job market and ever-increasing student loans, college is still a good investment, according to a new report by the Federal Reserve Bank of New York. Even if a job does not require a college degree, an employee is better off with one, the study found. When it comes to higher education, the return on investment depends on the college chosen and the major studied. Harvard and other Ivy League colleges offer great returns on their investment, of course. Not only are the degrees prestigious, but the network of their graduates is stellar.

However, Forbes found, the best investment in the country is Harvey Mudd College in Claremont, Calif., which has fewer than 1,000 students. Its mission is to educate engineers, scientists, and mathematicians, who are well-versed in the humanities and the social sciences as well. Forbes magazine found Harvey Mudd graduates typically receive a starting salary of $73,300 a year. Forbes calculated the return on investment over 20 years as $980,900. That bested No. 2 Cal Tech ($837,600), No. 13 Princeton ($690,800) and No. 23 Harvard ($650,100).

However, one does not have to travel across the country to do well by college. **West Virginia University Institute of Technology in Montgomery ranked in the top 10 percent.** Its graduates can expect a starting salary of $52,200 a year and a 20-year return of investment of $452,200. That topped No. 314 WVU ($311,600) and No. 878 Marshall ($154,300).

Two factors make the return at WVU-Tech so high, spokeswoman Jen Wood Cunningham told the Daily Mail's Whitney Burdette. The cost of attendance is low and the students pursue degrees in chemical, electrical, software and project engineers. The demand for engineers is much higher than say, English majors, which explains the difference. The school also has a good reputation. "We've been told by employers that with our graduates, they don't have to do a two- or three-year training program to get them where they need to be," Cunningham said. "Our graduates are ready when they graduate. They're ready to start day one."

Engineers from WVU, Marshall and other state schools can expect the same salaries and a similar rate of return. West Virginia high school students should think about staying in state -- especially if they qualify for four years of free or nearly free tuition from Promise scholarships. Regardless of school choice, an investment in a two-year or four-year higher education is one that pays off well in the long run.

See more at:
http://www.wvgazettemail.com/article/20140626/DM04/140629538#sthash.D9T1AbJa.dpuf

Looking for Value

Where some of the best tuition values are, according to the 2014 PayScale College ROI Report. For more, go to payscale.com/college-roi/.

Best Public Universities for Returns on Investment

For all majors, based on projected earnings over 20 years. Four-year cost is based on 2013 out-of-state tuition, room and board on campus, with no financial aid.

School	Cost	Annual ROI	20-Year Net ROI
South Dakota School of Mines & Technology	$98,700	10.9%	$656,000
New Mexico Institute of Mining & Technology	$122,600	9.0%	$542,300
Massachusetts Maritime Academy	$156,900	8.7%	$641,800
Colorado School of Mines	$178,500	8.6%	$719,000
Louisiana Tech University	$105,100	8.6%	$422,200
Missouri University of Science & Technology	$155,800	8.4%	$603,300
SUNY – Binghamton University	$119,600	8.4%	$458,800
Georgia Institute of Technology	$178,500	8.3%	$669,300
Montana Tech of University of Montana	$134,500	8.3%	$506,800
California Polytechnic – San Luis Obispo	$156,000	8.1%	$559,300
University of Minnesota – Twin Cities	$122,400	8.1%	$442,300
West Virginia U Institute of Technology	$114,100	8.1%	$414,100
Prairie View A & M University	$127,800	8.0%	$454,100
University of Wisconsin – Platteville	$109,900	7.8%	$371,000
Southwest Minnesota State University	$81,930	7.8%	$275,800
University of Alaska – Fairbanks	$130,900	7.7%	$426,600
Stony Brook University	$125,800	7.7%	$408,700
Texas A & M University – Main Campus	$157,800	7.6%	$499,900
Virginia Polytechnic State U (Virginia Tech)	$157,800	7.6%	$500,800
Southern Polytechnic State University	$136,400	7.5%	$420,200
University of Mary Washington	$132,500	7.5%	$416,100
Midwestern State University	$76,840	7.5%	$237,800

College grads are getting nearly all the jobs

by Tami Luhby @Luhby June 30, 2016: 12:02 AM ET

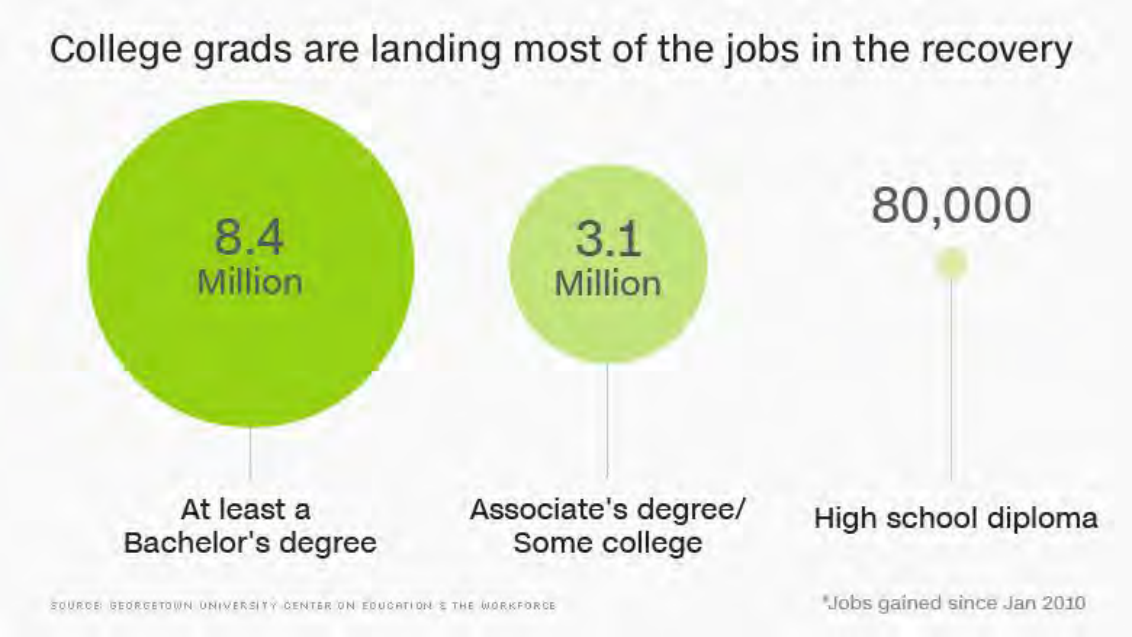
Got a college degree? Then it's much more likely that you could land a job in the economic recovery.

Of the 11.6 million jobs created after the Great Recession, 8.4 million went to those with at least a bachelor's degree, according to a new report from the Center on Education and the Workforce at Georgetown University.

Another 3 million went to those with associate's degrees or some college education.

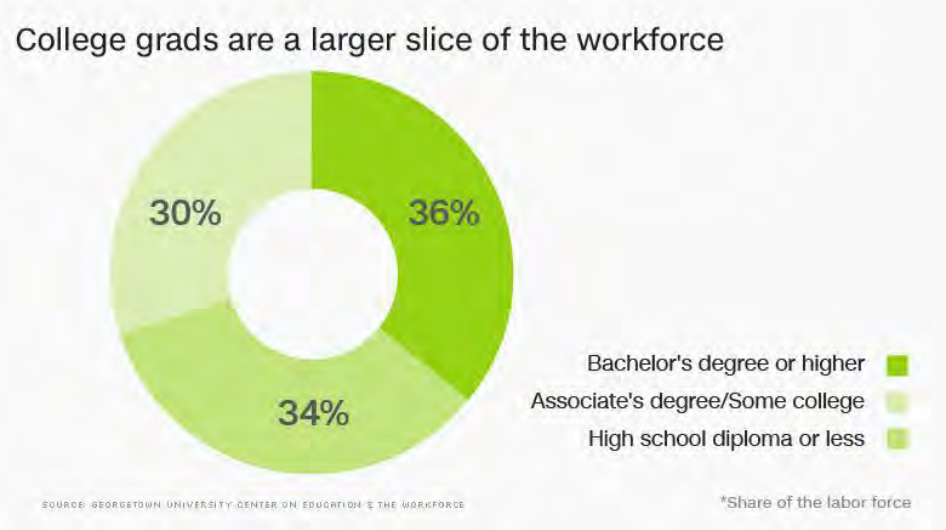
Employers increasingly want workers with at least some college education, be it a degree or even a certificate in a trade, such as nursing assistant or welding, from a technical or community college.

"College level skills determines access to decent jobs now," said Anthony Carnevale, the center's director and lead author of the report. "The modern economy continues to leave Americans without a college education behind."



Some 45% of Americans age 25 to 64 have an associate's degree or higher, while 23% have at least a bachelor's degree. Some 42% of young adults age 18 to 24 are enrolled in higher education.

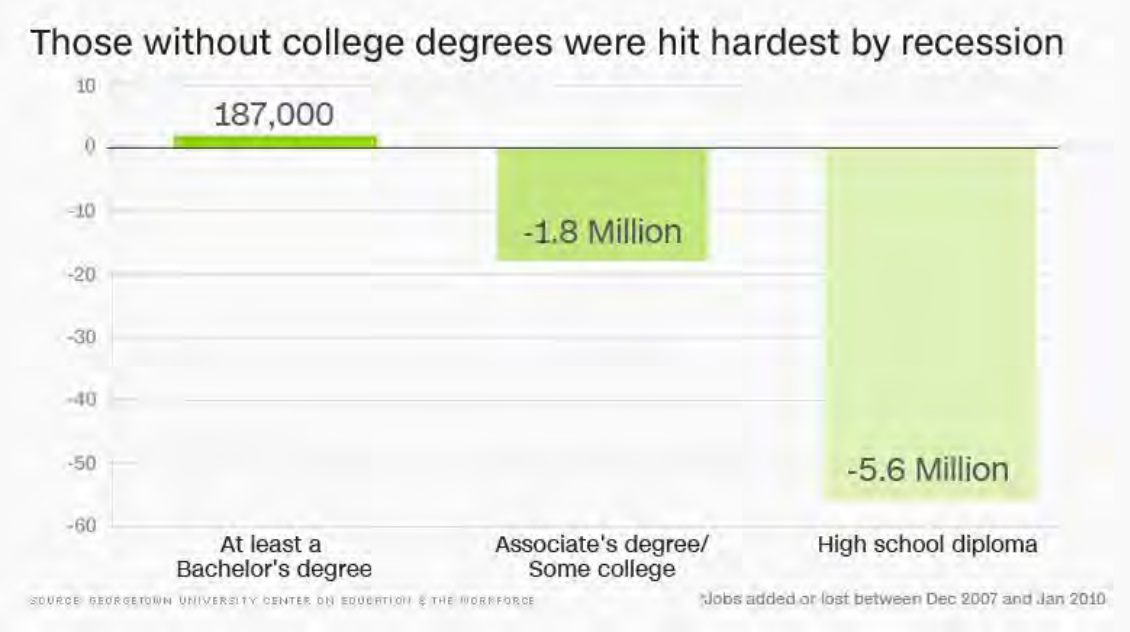
Americans with only high school diplomas represent a shrinking share of the workforce. This year, for the first time, college grads made up a larger slice of the labor market than those without higher education, by 36% to 34%, respectively. Until the early 80s, more than 70% of Americans entered the workforce right out of high school.



College grads are also more likely to get "good jobs," which Georgetown defines as paying more than $53,000 a year. An earlier study found that 2.8 million of these jobs went to those with bachelor's degrees between 2010 and 2014, while 152,000 went to those with associate's degrees or some college courses. Those with only high school diplomas lost 39,000 of these positions.

Related: These Americans are fighting to bring manufacturing jobs back

The Great Recession hit hard those who never went to college, and they have not recovered. Of the 7.2 million jobs lost between December 2007 and January 2010, 5.6 million were for workers with no more than high school diplomas. They've only recovered 1% of those losses over the past six years.



Occupations commonly held by those with only high school degrees shed many positions during the recession and have not recovered. Manufacturing is still down 1 million positions, while construction is 1.7 million jobs lower than it was before the economic crisis. And employment in office and administrative support, often held by women without college educations, is also lower by 1.4 million.

APPENDIX VII

Helpful Advice from Past Graduates of the BSME Program at WVU Tech

FEEDBACK FROM A FORMER STUDENT----1986 BSME

From: <rgilman86@aol.com>
To: Govindappa.Puttaiah@mail.wvu.edu
Date: 7/23/2010 9:50 AM
Subject: Former Student from 25 years ago

Dr. Puttaiah,

I just happened to be perusing the Tech web site and came across your picture. It brought back great memories. I graduated from Tech in 1986 with a BSME. I worked for almost 23 years at Delphi Automotive in Kokomo and am now the engineering manager at Wabash Metal Products, Inc. (www.wabashmpi.com). We make compression molding presses.

I just thought you would like to know that there is probably not a day that goes by that I am not using something you or one of the other professors taught me. I'm attaching a picture of the books that are right behind me in my shelf and most of these were from the classes there at Tech. (We are currently into an extremely frustrating "creep" problem and I have been utilizing material from the Advanced Machine Design class you taught.)

You can also pass along to Dr. Yu that, as long as I live, I will never forget "Energy In, minus Energy Out, equals the Change in Internal Energy!" We do a lot of heat applications.

Anyway, I think my Tech education greatly prepared me for the last quarter century of work and fully expect it to serve me into the next quarter century. I'm thinking of pursuing a masters soon, however, I may get an MBA since it appears I'm making the transition into engineering management now.

Take care and I hope all is well at WV Tech (I know WVU is there now, but to me it will always be West Virginia Tech!)

Sincerely,

Ron Gilman
BSME, '86
Engineering Manager
WABASH MPI/Carver, Inc.
1569 Morris St.
Wabash, IN 46992
(260)563-1184, ext. 5263
(260)563-1396
rgilman@corpemail.com
www.wabashmpi.com
www.carverpress.com

FEEDBACK FROM A FORMER STUDENT----1986 BSME

To: <Govindappa.Puttaiah@mail.wvu.edu>
Date: 2/22/2011 6:27 PM
Subject: Message for Students

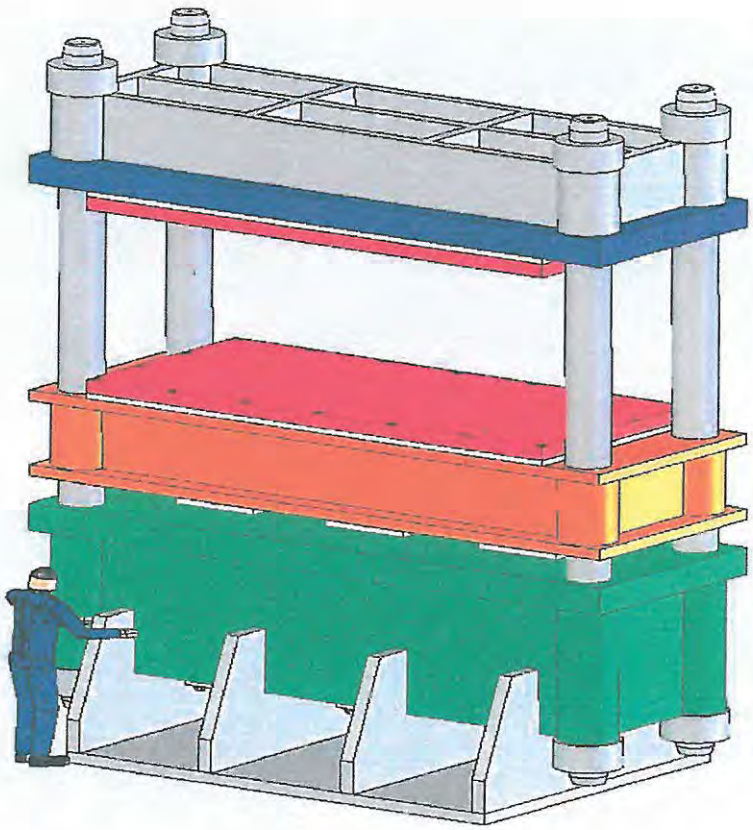
Dear Dr. Puttaiah,

Hope all's well at WV Tech! One message you may relay on to the current class of engineers...tell them to NOT throw away their textbooks! If they plan to practice engineering they will most likely reference them on a daily basis!!! Over the past year since I took this new job at Wabash Metal Products I have had to draw on virtually every class I took at Tech!

I have also had to re-learn the Parallel Axis Theorem regarding moments of inertia. It has been a long time. Below is a picture of an 800 ton compression molding press I just designed and we're quoting on. This was quite a challenge but we kept the deflection to around .003" per foot of span between the rods. This would be the largest press our company has designed/built.

Thanks again for a great education!

Ron Gilman
BSME, Class of 1986



FEED BACK FROM A FORMER STUDENT

From: Figgatt Kevin W DLVA <FiggattKW@NSWC.NAVY.MIL>
To: "'gputtaiah@wvutech.edu'" <gputtaiah@wvutech.edu>
Date: 10/31/00 1:34PM
Subject: Thanks!!

Dr. Puttaiah,

I just thought that I'd drop you a note and tell you how glad I am that I took your Advanced Machine Design course. We are having some suspected fatigue failures with some vane-axial fan rotors (3600 RPM operating speed) that have been in service for about 6 years. These rotors are aluminum castings. We have done some FEA work on the basic design of the rotor and it has shown that there is a very low factor of safety against yielding just from rotational stress. Some of the initial work has shown a FOS of less than one for yielding. These fans were designed under a Mil-Spec that dictates a FOS of 8. The fatigue data that you gave in the Advanced Machine Design class is very good information, and has come in handy.

Thanks again!!

Kevin

Kevin Figgatt
Mechanical Engineer
Naval Surface Warfare Center, Dahlgren Division
(540) 653-5266

FROM A FORMER STUDENT

Luke Martin has recommended you on LinkedIn

Luke Martin

To: 'Pat' Govind Puttaiah

Date: January 28, 2011

Luke Martin has recommended your work at WVU Tech.

This recommendation is not visible in your profile.

Dear 'Pat' Govind,
I've written this recommendation of your work to share with other LinkedIn users.

Details of the Recommendation: "I was a student of Dr. Puttaiah's at WVU Tech. He was one of the most influential forces in my engineering career.

To this day when I don't my abilities, I recall him saying, "You know more than you think you know."

I speak for many WVU Tech ME grads when I say, Thank you Dr. Puttaiah for all the knowledge you passed on to us.

Sincerely,
Luke A. Martin"

FROM A FORMER STUDENT

Govindappa Puttaiah - RE: Share with current students

From: Naveen Tan <NTan2@slb.com>
To: Govindappa Puttaiah <Govindappa.Puttaiah@mail.wvu.edu>
Date: 7/1/2010 3:07 PM
Subject: RE: Share with current students

Dr Puttaiah,

Thanks for the well wishes.

I meant for the below paragraph as the article. I am not good at writing articles, so please feel free to edit where necessary. I have copied and pasted it here with minor edits.

Please let me know if this is sufficient.

Best regards,
Naveen

"I have had a rich and valuable experience going to Tech. Tech has given me excellent hands on training which very practical and most of all the preparation to be flexible and learn a lot going into the industry. Not only the education in Tech was great but also the education environment which prepared me for challenges after graduating.

During the course of my career (which is not too long), I have always looked back to the various things I have learnt as a student in Tech. In class rooms, daily interactions with peers as well as in the form of advice from the proffessors such as Dr Puttaiah which have really prepared me for what lied ahead.

Just a brief summary of what I have done so far. After graduating from Mechanical Engineer department in Dec 2003, I joined Schlumberger, a multi national oilfield services company as a Field Engineer. After about 2 yrs working in the field located in Perryton, TX, I was then sent to Beckley, WV and given more responsibilty, working as a Cell Leader and District Technical Engineer. A year later Schlumberger then moved me to a new assignment as a Sales Engineer in Charleston, WV which I served as for about 1 year. Therafter, I was sent to Inez, Kentucky as a Field Service Manager. Performed my duties for around 1 year. Was then promoted to Kentucky district manager. Shortly after that, around 10 months, I was sent to Schlumberger Well Services HQ in Houston. This time my assignment was within the IT department as the Business Systems Manager for Well Services segment world wide. I have been in this role for about 1 year and 7 months now. In about 2 months I will be relocating again. This time to Tyumen, Russia. My role in Russia will be as the Training, Development and Staffing manager for Russia which is a Personnel role.

To put it in short, I have had opportunity to work in many different roles outside of engineering; Sales, Management, IT, and now Personnel. It has definitely been a great experience in a short period of time. I would attribute a lot of my achievements to the education and training I received from Tech which was able to prepare me not only academically but also mentally for the different challenges that I have been faced with so far.

All I can say for the current students are, treasure your time in Tech, learn as much as possible and know that learning does not end after graduation. Learning goes on and on. We must not stop learning. The day we stop learning, we shut out doors to new opportunities. Also we should not fear challenges, we should face them head on. 50 yrs from now, you will only regret the thing that you did not do, not the thing that you did.

Mail Message

Reply Reply All Read Later

Mail Properties

From: "Huddle, Richard" <Richard.Huddle@odh.ohio.gov> Thursday - March 21, 2013 11:12 AM
To: "Govindappa.Puttaiah@mail.wvu.edu" <Govindappa.Puttaiah@mail.wvu.edu>
Subject: Alumni
Attachments: Mime.822 (11 KB) [View] [Save As]

Dr. Puttaiah,

I graduated from Tech's Mechanical Engineering program in 1985. You were my professor for Machine Design, Power Plant Operations and Internal Combustion Engines.
My career so far has been interesting and I have rubbed elbows with ME graduates from Ohio State, Florida State and other big engineering schools. Based upon my experience I feel like my engineering education was every bit as good as theirs. I would like to thank all of my instructors at Tech for my education.

I was hoping to see Dr. Yu's name still on the faculty list but I suppose that he has retired. Do you have any information regarding him that you could share? He was my professor for Thermo I and II and Thermal Energy Conversions along with several labs. Those were the most difficult college courses that I have experienced but looking back I learned so much in them.

If you are still in contact with him please let him know that I spoke of him.

Yours truly,

Richard D. Huddle, RS
Ohio Department of Health
Division of Quality Assurance
Environmental Abatement Section
246 N. High Street
Columbus, OH 43215
(614) 466-0061 (program)
(614) 995-4253 (direct line)
(614) 564-2481 (fax)
richard.huddle@odh.ohio.gov

Graduated Seniors Experience at WVU Tech

Walter Engels <wblake13@gmail.com>

Wed 6/8/2016 3:18 PM
To:Govindappa Puttaiah <Govindappa.Puttaiah@mail.wvu.edu>;

Dr, Puttaiah,

My experience at tech was full of nothing but excellent experiences. Tech is an exemplary school with a lot of opportunity for advanced learning in the engineering discipline. I chose to go down the path of mechanical engineering because I was always fascinated with how motors, gears, engines, and power generation worked. Tech provided me with a great hands on opportunity to learn all the skills necessary to become a career ready mechanical engineer. The atmosphere at tech is one that is open, friendly and helpful when you need it the most. The availability of the professors to help with homework or assist with a difficult learning task was amazing to me. With little to no wait for help, it was easy to fully grasp all the concepts and lessons that were conveyed to me in the classroom. The professors always have time to help and to ensure every student fully understands the material. The labs that were often paired with a lecture were some of the best learning tools to complement the material learned in class. It is one thing to read and memorize the material, but to apply the knowledge with a hands on experience is the best way to fully understand the engineering behind many of the machines and devices we use every day. At times writing all those lab reports was grueling. However, through this process you will be more ready to write technical reports once you make it to the workforce which is something engineers must master. The mix of writing and presenting material to the class also improves ones presentation skills. If I could offer any advice to the incoming freshmen it would be simple.

First and foremost you must be ready to work hard. Without a strong work ethic this program will be difficult.

Second, get to know your professors. It is so easy to stop by and discuss the past classes lecture and ensure that you have the knowledge ready for the coming assignments. I also liked to discuss engineering in the news and current events with my professors.

Third, Be organized from day one. Take excellent notes and be ready to refer back to them throughout the semester. Being organized will make this easy for you. Use loose leaf engineering paper and keep a binder with tabs separated by subject. You will need your notes to complete homework and study for quizzes and exams.

Fourth, Time management is equally important here as well. There will be enough time in the day to socialize and get all your work and studying completed. Don't ever wait until the last minute to study and or do your assignments. This will lead to late work and poor performance on exams. If you think you can do it in 2 hours, give yourself 4.

Lastly, you know more than you think you know. Learning happens so fast and there is so much to learn that we often don't realize what all we have learned. Be confident and know that you are excelling more than you think.

Sincerely,

W. Blake Engels
Member Pi Tau Sigma, Published Paper Conference Award Winner, Mechanical Engineer

Incoming Freshmen Students
Department of Mechanical Engineering
Montgomery, WV 25136

SUBJECT: My advice and experiences as a WVU Tech student

Dear Mechanical Engineering Freshman:

Throughout this letter I will be sharing my experience as a student at WVU Tech and advice that I have for the Mechanical Engineering freshman class.

I was attracted to WVU Tech because of its family-like, tight knit environment that is able to maintain its historic standing as an accredited university. Departing high school I had a great deal of acceptance letters and tough choices to make, I chose Tech because of the personal interaction and immediate connection that I was able to establish with the faculty and administration. Although I was able to interact with many of the faculty and staff easily, there were still a great deal of challenges I faced as an incoming freshman. It leads me to the purpose of this letter and as a recent graduate I would like to reflect and share several pieces of advice I wish a peer would have shared with me:

- The most important thing of them all, in my opinion, is to recognize your resources! The more you are able to socialize and get to know people and their personal goals the better. Take advantage of the small class sizes and tight-knit community Tech has, this is especially important when you need coursework help.

- Secondly, take advantage of career fairs/job festivals. Speak with Candice in Career Services—you may think you want to wait until junior year and then begin looking…DON'T. Start now, even if that means just putting your name out there. Many of the companies that visit Tech have built a relationship with the University so generally they may come back— chances are they will probably remember you, even if they aren't looking for someone right away.

- Strive to be the best person you can be. Don't just go to class and be done, be the best person in and out of the classroom. Hang out in the student lounge after class, find out what clubs spark your interests. See what projects seniors are working on, that is possibly something you will be working on in the years to come. The best way to really know what you want to do after college, is by doing something relatively similar to it while you're in college. If there is a club or interest you have that's not something currently offered, ask about it. The worst someone can tell you is "no".

- Have FUN! Fun doesn't have to be drinking or spending money every weekend, fun can be anything you enjoy. Chilling with friends, talking, laughing, singing, going to see shows or concerts. There are many free events on campus, in Charleston or even Beckley, check them out. I know professors will give you plenty to do, but don't forget on the weekends to take some time for yourself.

As a student at Tech, the suggestions listed above were what I learned to live by during my time in Montgomery. As I mentioned earlier–you need to know and understand your resources, get to know your professors! Each member of the ME faculty are there to help you, it's up to you to recognize their area(s) of interest and ask questions to the appropriate people. Hence, the ME faculty board in the main hall sponsored by ΡΤΣ. This board was started by a student, who wanted to see a change in the department and allow students to see their professors' research interests. This student's initiative leads to the point of '***striving to be the best person you can be***'. Participating in extra-curricular activities affords you the opportunity to take on challenges that are not traditional to the students who simply follow the pattern sheet. My participation in **extra-curricular activities played a leading role in me being nominated and awarded the 2016 Presidential Leadership Award for the Leonard C. Nelson College of Engineering and Sciences**. As a student at Tech, I served in and led a wide range of campus activities, all of which were things I believed I can make a difference in or have them make a difference in me.

All in all, a goal that I set for myself and that I would like each and every one of you to set: **challenge yourself and challenge other**s. Do something great during your time at Tech, be an activist not just a spectator. Just make sure it's something you're passionate about. Don't enroll in any degree program because you think it will be easy or because you'll make money. Do it because it's something you love. If a portion of this field is what you want and you're willing to fight to get there, it's absolutely worth it.

If there is anything I can do to help your transition to college easier, or questions you may have about my experiences at WVU Tech, please feel free to contact me: **tajohnson@mix.wvu.edu**

Sincerely,

Tavon Johnson, '16
Field Engineer
Emerson Process Management

P.S. A wise man once told my class **"You know more than you think you know."** Essentially, don't underestimate your abilities, sometimes ambition can allow you to advance more in life than cleverness.

From: Brett Floyd <bafloyd@mix.wvu.edu>
Sent: Thursday, June 23, 2016 8:56 PM
To: Bernhard Bettig; Govindappa Puttaiah
Subject: Contribution to the Mechanical Engineering Handbook

Dear Future Mechanical Engineer,

My name is Brett Floyd and I am a 2016 M.E. graduate of West Virginia University Institute of Technology. Throughout the four years I spent commuting to the Montgomery campus, I gained an educational experience that could only be obtained through a very well thought out program created by highly skilled and experienced professors. The reputation of creating above average mechanical engineering graduates encouraged me to attend this university and urged me to play a part in keeping this reputation going as I moved into employment throughout the summers and after graduation. I can confidently say that I was well prepared to move into the full time job I currently hold thanks to the curriculum taught by professors who are passionate about teaching and molding successful future engineers.

As you are entering this program, I would like for you to keep a few things in mind that I feel could help in your future career as a Mechanical Engineer. First, I would like for you to start building relationships and networking on your very first day of class! These relationships should not only be started with every M.E. student you encounter in the program, but also other students in various majors you come across. Start a study group, offer to tutor, or become a member of a campus organization. Not only will this build your communication skills but it could also lead to internships and full time employment opportunities after graduation as it did for me.

Secondly, manage your time effectively to where you can complete all assignments on time. As a freshman, I had trouble keeping up with the numerous due dates given for assignments in each of my courses. After analyzing the reason behind the forgotten due dates and late assignments, I realized that it would be beneficial to keep an agenda which would list all assignment due dates along with a weekly plan for completing each assignment on time. I encourage you to do the same and to always treat due dates seriously. Making this a habit now will save you from either turning in an assignment late or submitting something of poor quality after trying to finish the task one day before it's due.

Lastly, start looking for internships in a field that interests you as soon as possible and start building your resume! I found that interning during my years as an undergraduate truly helped build skills that can only be gained through working in a company environment and made me more appealing to job recruiters. Also, pay a visit to career services on campus where qualified employees are eager to assist in resume writing and interview preparation.

As I close, I would like to say that this education is what you make of it. I can promise that the M.E. Department at WVU Tech will do their part in making this a valuable experience and will do everything they can to help you achieve your goals. However, it is up to you to start setting these educational goals now and determine what you would like to take from this wonderful opportunity.

Sincerely,

Brett Floyd

Joël <kyjojoel@gmail.com>

FROM: Joel Kouakou,
TO: Mechanical Engineering Department, WVU Tech
Date: June 20, 2016

Mon 1:22 PM

I attended WVU Tech between the 2014 spring semester and the 2016 spring semester as a transfer student. Although the engineering program is slightly aggressive and challenging, I was able to quickly discover that it was for my own good. In fact, I was invited to present my senior design project at the American Society for Engineering Education (ASEE) conference in Michigan. Not only my project was well received, but I got to sit and listen to other presentations that were poorly organized or presented, unlike the ones from Tech students. I then realized that the fact that my professors were being extremely demanding and persistent in projects guided us to deliver better results and forged us to become better professionals; especially in our system design classes, where we were required to professionally present at least once every week.

On the other hand, The WVU Tech mechanical engineering program definitely needs to upgrade many aspects of the program. Some of the lab equipment is old and failing; new equipment will have to be purchased and instructors be trained to use them. The number of classed required for graduation as well as the class schedules should be reviewed, since they do not realistically allow students to graduate within 8 semesters. Lastly, more engineering scholarships should be made available to current students and internationals, because they are most likely going to need it the most. This will increase retention and create value students that will positively promote Tech for the rest of their lives. It's all about legacy.

My advice for new students is to make friends fast and establish a study group of 2 or 3 friends for every class. This way of being accountable to peers helps stay on top of assignments (believe me, you will get a lot of homework). Also find a study spot, where you will go every day for a few hours; you will get used to that place and naturally find yourself going there to avoid too many distractions (I recommend the ME Lounge). Finally, nothing is impossible. You know more than you think you know. If, as easily distracted as I am, and English being my 4thlanguage, I was able to get it done and become a design engineer at a fortune 500 company today, you can do much better than me with what you have plus a little ounce (29.57 ml) of determination.

Joel Kouakou
Design Engineer - Hardware & Fasteners
Caterpillar Inc.

Dear Future Mechanical Engineer,

My name is Raúl Torres and I am a Fall 2015 M.E. graduate of West Virginia University Institute of Technology. I actually transferred as a sophomore into WVU Tech and spent 3 ½ years completing my education in the Montgomery campus. During my time as a mechanical engineering student in WVU Tech I found myself surrounded with great people from all around the world. I found the course structure to be very well rounded; exposing students to many of the mechanical engineering fields and helping them identify their area of main interest. Being part of the mechanical engineering program I found teachers who knew you by name, who cared about your education, and especially believed in their students. I can confidently say that my decision to attend WVU Tech led me to the full time job that I currently hold.

As you start this new journey, I would like to give you some tips that hopefully will help with you through this new transition. First, meet new people. Being part of the engineering program will give you the opportunity to meet people from all over the United States and the world. This is a great networking tool that will help you succeed in college. You will learn the ins and outs of how to prepare for tests, who the best tutor is, when they're having study groups, who has the best notes and a lot more information that will help with all the challenges that college life brings. Always keep in mind, that networking circle you create will lead to future opportunities such as internships and full time employment.

Secondly, it's never too early to start applying for internships. I, as many of you might be thinking, thought "What's it like to work as an M.E.?" I found that question to be impossible to answer. Every job is different even though they might have the same title. You have to explore the market as much as you can in order for you to find the job that fits to your career path. Don't fear that your resume isn't strong, companies know this and that's why they are looking for young aspiring students like yourselves. One last thing, never stop applying. The application process may be tough but do not let that discourage you from finding an internship. A company is looking for you; you just have to keep applying.

Lastly, this is the most important one of them all, time management. College is one of the best times of your life and you will always cherish the memories you make there but remember the main reason you are attending is for your education. A great habit to have is note taking. Professors will either announce or write test dates and assignment due dates, be ready to write those down either in your notebook or your planner just make sure its somewhere you will frequently be revising. One last thing, know who you are as a person. Everyone has different ways of studying, find a plan that suits you in order to study efficiently and keep up to date on your assignments.

Even with all these tips and the tools that the professors will provide during your journey, the biggest factor in your success is you. There will be days that everything seems to be falling apart but remember they are all just obstacles that you will overcome and bring you that much closer to achieving your goals. An upperclassman once told me, "College is an investment, you trade x amount of years in order to benefit from it the rest of your life." Today I look back and I can honestly say it was all worth it. Always believe in yourself, and good luck!

Sincerely,

Raul R. Torres Gonzalez
Associate Field Service Engineer
Emerson Process Management
raulft27@gmail.com

Dear Future Mechanical Engineer:

My name is Pol Bernaldo, I am from Barcelona (Spain) and I spent three semesters at WVU Tech. I came to WVU Tech as a Junior since I transferred from Barcelona Tech (UPC-ETSEIB Spain) and my major was Mechanical Engr. . I had a very nice experience as a ME student at WVU Tech and I developed a lot of new skills. What I really appreciated during my experience at WVU Tech was the willingness of ME professors to help me out with anything I needed. This implication of the faculty members in students' development is hard to see in other bigger schools, and it is particularly important for international and transfer students. Therefore, here comes my first suggestion to freshmen: do not be afraid to stop by the professors' office to seek help. It is absolutely normal to go see them to solve any kind of questions you may have.

Secondly, quizzes, homework and assignments are more important than you may think. They help you to learn lessons in little doses and also figure out if you are understanding the topics before final exams week. Final exams week is always a very busy week, so do not expect to learn all the semester work in a few days. Quizzes, homework and assignments allow you to keep a good workload during the semester, so you don't stress out before final exams.

Then, I would also recommend all ME students to join SAE Baja, SAE Aero Design, NASA Space or any other team that may come up in the future. These collegiate competitions allow you to apply what you are learning in class to the real world. It is also a nice way to meet new friends, work on an interesting project and have fun at the same time.

After all, one of the most important things is to have fun as you pursue your dreams. So do not think of college education as a stressing and frustrating time, instead, you should enjoy it so after graduation you are proud of what you have done."
Best regards,

Pol Bernaldo Franco,
BSME December 2015
polbernaldo@gmail.com

ENGINEERING QUOTABLE QUOTES

"If you find a job you like, you will never work a day in your life."
Confucius, Chinese Philosopher

"Scientists study the world as it is, engineers create the world that never has been."
Theodore Von Karman

"Engineering profession is a figment of imagination that emerges as a plan on paper, moves to realization.., brings jobs and homes to men, elevates the standards of living and adds to the comforts of life."
Herbert Hoover, U.S. President & an Engineer by profession

"UNLIKE THE DOCTOR, AN ENGINEER IS NOT A LIFE AMONG THE WEAK;
UNLIKE THE SOLDIER, DESTRUCTION IS NOT HIS PURPOSE;
UNLIKE THE LAWYER, QUARRELS ARE NOT HIS BREAD;
TO THE ENGINEER FALLS THE JOB OF CLOTHING THE BARE BONES OF SCIENCE WITH LIFE, COMFORT AND HOPE."
Herbert Hoover, U.S. President & an Engineer by profession

"Learn from listening to those who know more then you do,
Learn from observing those who possess what you lack,
Learn from hearing those who have mastered before you,
Learn from your past heritage and legacies of your ancestors,
And always keep an open mind for the unknown."
Unanimous

"Take a test drive in your profession by joining the Co-op program to find out if you enjoy spending 30% (8 hours/day) of your active life working as a Mechanical Engineer."
Cantrell Miller, Career Counselor, WVU Tech.

"Use what talent you possess – the woods would be very silent if no birds sang except those that sang best."
Henry Van Dyke

"Students don't care how much you know, until they know how much you care."
Unanimous

THE INDUSTRIAL REVOLUTION

James Watt, a mechanical engineer, is credited with starting the Industrial Revolution with his Steam Engine; the first 'Thermal Device' that demonstrated a practical and efficient way to convert heat into mechanical work. It heralded the beginning of a new era of machines doing the work of animals and humans.