

Benjamin M. Statler College of Engineering and Mineral Resources

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Degrees Offered

- Bachelor of Science in Aerospace Engineering (B.S.A.E.)*
- Bachelor of Science in Biomedical Engineering (B.S.Bm.E.)*
- Bachelor of Science in Biometric Systems Engineering (B.S.B.S.E.)*
- Bachelor of Science in Chemical Engineering (B.S.Ch.E.)*
- Bachelor of Science in Civil Engineering (B.S.C.E.)*
- Bachelor of Science in Computer Engineering (B.S.Cp.E.)*
- Bachelor of Science in Computer Science (B.S.C.S.)[#]
- Bachelor of Science in Cybersecurity (B.S.)[#]
- Bachelor of Science in Electrical Engineering (B.S.E.E.)*
- Bachelor of Science in Engineering Technology (B.S.)
- Bachelor of Science in Industrial Engineering (B.S.I.E.)*
- Bachelor of Science in Mechanical Engineering (B.S.M.E.)*
- Bachelor of Science in Mining Engineering (B.S.Min.E.)*
- Bachelor of Science in Petroleum and Natural Gas Engineering (B.S.P.N.G.E.)*

* Accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

[#] Accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

Dual Degrees Offered

- Aerospace Engineering and Mechanical Engineering
- Biometric Systems Engineering and Computer Engineering
- Biometric Systems Engineering and Electrical Engineering
- Civil Engineering and Mining Engineering
- Computer Engineering and Computer Science
- Computer Engineering and Electrical Engineering
- Mining Engineering and Geology

Nature of Program

The Benjamin M. Statler College of Engineering and Mineral Resources (Statler College) undergraduate degree programs are administered through seven academic departments:

- Chemical and Biomedical Engineering
- Lane Department of Computer Science and Electrical Engineering
- Industrial and Management Systems Engineering
- Mechanical and Aerospace Engineering
- Mining Engineering
- Petroleum and Natural Gas Engineering
- Wadsworth Department of Civil and Environmental Engineering

All undergraduate programs are recognized by industry as providing excellent preparation for the engineering profession. They are planned to give students a balanced background in the basic sciences, engineering sciences, engineering analysis, the humanities, and the social sciences. In addition, each curriculum features creative programs in engineering synthesis and design. This blend of science and practice gives students the tools to solve today's problems and the background to develop the expertise needed for their future success in the profession. Our graduates enjoy a multitude of career opportunities in our world's most vital industries.

The Statler College is committed to providing high-quality educational programs for all undergraduate students, so that graduates of the College will:

- Be proficient in their chosen field
- Develop and maintain professional ethics and understand the comprehensive impact of engineering solutions on a diverse, interconnected, and global society
- Continue in their education on a life-long basis through both formal study and self-directed inquiry

The faculty uses modern teaching techniques including programmed material, guest lectures by visiting authorities, team projects, and in-house industrial assignments to provide a breadth of training experiences. Teaching laboratories are equipped with modern instruments, machines, and tools to improve and enrich the student's understanding of engineering principles and problems. Numerous computer laboratories and facilities are available for classroom work.

College programs are geared to provide graduates with a sound background upon which to enter the industrial workforce or to pursue graduate study in engineering, medicine, law, or business. A number of industries in West Virginia and the region provide meaningful and financially rewarding summer employment for students. These training opportunities often lead to professional positions upon graduation.

Curricula

During the first two years, students acquire fundamental knowledge in mathematics, basic sciences, and introductory engineering topics. Engineering design, computer-based experience, and communication skills are integrated throughout the curriculum. In the third and fourth years, the curriculum builds upon the fundamental engineering concepts toward an integrated educational experience, preparing students to pursue a successful professional career and life-long learning. Technical electives allow students to develop depth in a specialty area or breadth among several fields. Study in the humanities and social sciences play an integral part of our programs, enabling students to understand and appreciate the technological, social, and cultural changes that challenge the world and providing the context of our ethical and responsible duties to society.

Time to Completion of Degree

All undergraduate, single degree programs in the college are structured so that they can be completed in eight semesters of full-time study if a student starts in Calculus I (MATH 155).

Degree Requirements

To be eligible to receive a bachelor's degree, a student is required to complete satisfactorily the number of semester hours of work as specified in the program curriculum. Students must achieve a minimum grade point average of 2.00 for all courses taken at WVU, a major grade point average of 2.00 or better in courses completed within the student's major, and a minimum overall grade point average of 2.00. A maximum of one math or science lecture course with a grade of D+, D, or D- may apply toward a Statler College degree. All course attempts are included in the major GPA calculation according to university policy.

Graduating students are expected to complete a survey regarding their academic and professional experiences at WVU, as well as post-graduation job placement or continuing education plans.

Cooperative (Co-op) Education and Internship Programs

The co-op opportunity is available to any student with a minimum 2.25 GPA interested in pursuing a degree in any major offered by the Statler College. The professional development experience combines practical on-the-job experience with the classroom education of a four-year engineering curriculum.

Co-ops are arranged with an employer for various work periods and may involve one or more academic semesters and/or summer terms. Internships are professional work experiences which generally occur during summer terms. Participation in internships, co-ops, or both is strongly recommended of all Statler College students.

Learning Abroad Programs

Students are strongly encouraged to prepare for their careers through learning abroad. The college participates in numerous international exchange programs for undergraduates, as well as the International Student Exchange Program (ISEP) managed through the WVU Education Abroad Office.

There are short-term classes led by WVU faculty, semester and year-long exchange programs, study abroad programs, and service learning opportunities via Engineers Without Borders. The college strongly encourages students to participate in these unique study abroad opportunities. Individual program details vary, but in general, provide Statler College students the opportunity to take part in a study abroad experience that may be for a summer, semester, or full academic year taking courses that count toward their degree so graduation need not be delayed. Students are encouraged to visit the WVU Education Abroad website for more detailed information.

ADMINISTRATION

DEAN

- Pedro J. Mago - Ph.D. (University of Florida)

ASSOCIATE DEAN FOR ACADEMICS AND STUDENT PERFORMANCE

- Robin S. Hissam - Ph.D. (University of Delaware)

ASSOCIATE DEAN OF RESEARCH

- Xingbo Liu - Ph.D. (University of Science & Technology, Beijing)

ASSOCIATE DEAN FOR STUDENT, FACULTY, AND STAFF ENGAGEMENT

- Cerasela Zoica Dinu - Ph.D. (Dresden University of Technology, Germany)

ASSISTANT DEAN FOR ADMINISTRATION

- R. Jason Dean - M.A. (West Virginia University)

Admissions

Statler College admission is based on high school grade point average and math placement. Students must also meet all other WVU admission requirements (<https://admissions.wvu.edu/>). Once admitted, students work with their academic advisor to create their degree plan and semester schedules based on initial math placement and specific degree requirements. Each degree plan is tailored to the level of academic preparation of the student to maximize the opportunity for success while meeting the requirements of their intended major.

ENGINEERING TECHNOLOGY PROGRAM

Any incoming students entering under regular or transfer admissions that meet WVU admission requirements (<https://admissions.wvu.edu/>) are directly admitted into the program.

ENGINEERING AND COMPUTING PROGRAMS

Incoming students who achieve a 3.00 cumulative high school GPA or meet entry requirements to College Algebra (MATH 126) will be admitted to the Statler College.

TRANSFER STUDENTS

Any incoming transfer student, internal or external to WVU, will be admitted once they meet the WVU Math Department's requirements of starting in Calculus I (MATH 153 or 155) and have a cumulative 2.25 GPA or higher.

Any student transferring in with less than 24 credit hours and who do not meet the above transfer criteria will be evaluated based on the regular admission criteria.

MATRICULATION INTO ENGINEERING OR COMPUTING MAJORS

ENGINEERING DEGREES

Students can matriculate into the engineering discipline of their choice once they have successfully completed the following classes with a C- or better, and have a cumulative 2.00 GPA.

- MATH 154 or 155
- CHEM 115 and 115L
- ENGL 101 or 103
- ENGR 101
- ENGR 102
- ENGR 191

COMPUTING DEGREES

Students can matriculate to the computing discipline of their choice (computer science or cybersecurity) once they have successfully completed the following classes with a C- or better, and have a cumulative 2.00 GPA.

- CS 110 and CS 110L
- MATH 154 or 155
- ENGL 101 or 103
- ENGR 101
- ENGR 191
- One of the following lab science sequences:
 - BIOL 115 and 115L, CHEM 115 and 115L, CHEM 117 and 117L, PHYS 111 and PHYS 111L, or SUST 101 and 101L

EARLY MATRICULATION INTO MAJOR

Freshman students with initial placement into Calculus I (MATH 155) or higher can be eligible to move into the engineering or computing discipline of their choice early based on the following criteria

- Students who have at least seven AP credits with at least four of those credits including CHEM 115 and 115L, PHYS 111 and 111L, or PHYS 112 and 112L; pass all their first semester math and science classes with at least a C-; and have a cumulative 3.50 or higher GPA

Or

- Students who pass all their first semester math and science courses with at least a C-; and have a cumulative 3.50 or higher GPA.

ADMISSIONS REQUIREMENTS 2024-2025

The Admissions Requirements above will be the same for the 2024-2025 Academic Year.

Certificate Programs

- Biomedical Engineering (<http://catalog.wvu.edu/undergraduate/undergraduatecertificate/biomedicalengineering/>)
- Global Competency (<http://catalog.wvu.edu/undergraduate/undergraduatecertificate/globalcompetency/>)

Minors

- Biomedical Engineering (<http://catalog.wvu.edu/undergraduate/minors/biomedicalengineering/>)
- Chemical Engineering (http://catalog.wvu.edu/undergraduate/minors/chemical_engineering/)
- Computer Science (<http://catalog.wvu.edu/undergraduate/minors/cs/>)
- Cybersecurity (<http://catalog.wvu.edu/undergraduate/minors/cybersecurity/>)
- Engineering in Society (<http://catalog.wvu.edu/undergraduate/minors/engineeringsociety/>)

Policies for Matriculation to Major

All students need to make adequate academic progress. Adequate academic progress for engineering and computing students is defined as meeting the requirements to move into a specific engineering or computing major. The timeline to meet the specific engineering or computing major matriculation requirements is defined by a student's math course upon entry to the Statler College. Students are permitted a specified number of semesters to complete the matriculation requirements, as listed below.

Starting Math Course	Semesters to Complete FEP requirements
122	8
126	7
128	6
153	5
155	4

The Statler College understands that each student's case is unique and the academic progress of all students within the fundamentals of engineering program will be reviewed at the start of their third semester. If a student is making progress at the third semester checkpoint, they will be allowed to continue. If a student is not making progress, students will receive a notification from the college. This message will include details related to the timeline to matriculate to major. In the last semester allotted to them, students will be placed on an academic contract to ensure matriculation to major, or any additional processes needed. Failure to complete the contract, will result in dismissal.

Procedures and Guiding Principles for Handling Transfer/Transient Credit

The Statler College strives to manage student transfer/transient credits in a fair, consistent, and uniform manner relative to students in the College who do not seek transfer/transient course credit and to exercise due diligence with meeting ABET prerequisite and curricular requirements for transfer credit. The College has adopted the following procedures/guiding principles to deal with transfer/transient credit issues.

Credit Transfer Procedure

Chemistry, engineering, geology, math, or physics courses transferred to WVU for consideration of academic credit in the Statler College will be transferred as "Open Credit" (e.g., MATH 000, NOEQ, ITC, 2TC, etc). The "open credit" will be reviewed to determine if it meets the academic requirements of the College and if so, processed by a course substitution action. The only exceptions to this policy will be if a student is transferring into the College:

- Advanced Placement Program (AP) credit
- International Baccalaureate (IB) credit
- College Level Examination Program (CLEP) credit

- Credit based on an approved Transient Approval Form by the dean or his designee before the course was taken
- Credit from a college or university with which Statler College has an approved articulation agreement
- Credit from a college or university listed in the University's Transfer Credit Database as directly equivalent to coursework at WVU

Guidelines for College Approval of Requests for Transient Course Credit

Students may request up to nine (9) credits of coursework to be taken in transient for use toward the degree requirements, defined to include mathematics, science, and Statler College courses. Students may request up to eighteen (18) credits of coursework in total, which includes English, Economics, general education elective courses, and free electives. For a request to take required course in transient, the student must present sufficient evidence that a course requested to be taken in transient is equivalent to the specified WVU course and allow for ample time for review.

An Undergraduate Transient Application will typically be approved if:

- The student has met the rank, prerequisite/co-requisite courses, etc., to take the course at WVU
- The prerequisite courses have been completed with a minimum grade of C- or better
- The requested course has the same number of credit hours and pre or co-requisites as the WVU course or has otherwise been deemed academically equivalent by Statler College

An Undergraduate Transient Application will not be approved if:

- The student has previously earned a D, F, or W in the equivalent course at WVU
- The student is currently enrolled at WVU to take coursework in the same term/semester in which they are applying to be a transient student at another institution.

Meeting the guidelines for a transient application does not guarantee approval of the transient application. The associate dean for academic affairs has the right to set conditions more stringent than those set forth in these guidelines, as well as the right to limit transient course credit. Transient requests for summer session will be reviewed after April 1.

Courses Taken by Learning Abroad

Courses taken on an approved learning abroad experience are exempt from the 9/18 credit limit of transient work. Students are encouraged to work with the Statler College Advising Center to develop an appropriate course plan in advance of the learning abroad experience. Courses should be reviewed for content and suitability for a reasonable course substitution to meet program requirements.

Course Substitution Approval Process

A course designated as "open credit" can be petitioned for specific course credit through the established course substitution approval process. The student must present sufficient evidence that the course is equivalent to the specified WVU course. A course syllabus and transcript showing the student's grade in that course must be presented with the application for the course to be reviewed to determine equivalency. Since this review process may take significant time to complete, credit for courses presented for review within two weeks of the beginning of a semester may not be awarded credit in time for the student to register for a subsequent course for which the transfer course is a prerequisite. To be approved to apply toward a Statler College degree, courses taken must have an earned grade of C- or better.

For external transfer students that are sophomore level or above, have earned a C- or better in CHEM 115, MATH 155, MATH 156, and PHYS 111, and have completed at least three credit hours in a discipline specific course, then they may request to take an approved elective (or approved transfer credit) as a substitute for either ENGR 101 or 102 or the combination.

Smart Device Policy

The use of programmable calculators or smart devices (including smart-phones, smart watches, tablets, cameras, wearable devices, etc.) on exams and quizzes prohibited unless specifically indicated by the instructor. Students are expected to have webcams for their laptops or desktop computers.

Sanction Policy for Academic Integrity Offenses

Graduates of the Statler College have the obligation to serve humanity with integrity, fairness, tolerance, and respect. Computing and engineering professionals are held to the highest standard of conduct. Academic integrity is fundamental to meeting this obligation and standard of conduct. Academic integrity offenses are processed through the Office of Academic Integrity, and sanctions are determined by that office in consultation with faculty members and college administrators.

Probation, Dismissal and Readmission Policy

UNIVERSITY PROBATION AND SUSPENSION

Students with a cumulative grade point average below 2.00 in all University coursework will be subject to probation and suspension by the University. Please refer to the Undergraduate Academic Probation and Suspension Policy found in the Undergraduate Information section of this catalog for further information on WVU probation and suspension.

MINIMUM STATLER ACADEMIC STANDARDS

The Statler College has established academic standards to ensure the quality of our programs, and to make sure students are making adequate progress towards their degree.

- A maximum of one math or science lecture course with a grade of D+, D, or D- may apply toward a Statler College degree.
- Students must maintain minimum GPAs (Statler, WVU, and overall or cumulative) of 2.00.

The Statler GPA is computed based on all work taken at WVU with a subject code within Statler College (BIOM, BMEG, CE, CHE, CPE, CS, CSEE, CYBE, EE, ENGR, ENVE, ETEC, IENG, IH&S, MAE, MINE, PDA, PNGE, SAFM, SENG) excluding ENGR 140, ENGR 150, and CS 101. The WVU GPA is computed based on all work taken at WVU. The Overall or cumulative GPA is computed based on all work taken at WVU and transfer work.

Students who fail to meet any of the above standards are not eligible for graduation.

STATLER COLLEGE DISMISSAL POLICY

Students may be placed on academic contract for a variety of academic progress concerns such as failure to progress within their major, petitioning for an additional attempt within a course, etc. Students become eligible for dismissal from the Statler College if they fail to meet the requirements of their academic contract.

While dismissed, students will not be able to register for any Statler College specific courses. A student who has been dismissed for academic performance must petition to be readmitted to the Statler College; the decision to readmit will be on a case-by-case basis and is not guaranteed. A student who has preregistered for classes and is subsequently dismissed shall have their registration in Statler College courses automatically canceled. Dismissal from Statler College due to academic integrity offenses is a permanent dismissal. If a student is readmitted to the Statler College and subsequently dismissed a second time, they may not return to the Statler College.

Graduation Requirements

To be eligible to receive a bachelor's degree, a student is required to complete satisfactorily the number of semester hours of work as specified in the program curriculum. Students must achieve a minimum GPA of 2.00 for all courses taken at WVU, a Statler GPA of 2.00, and a cumulative GPA average of 2.00. A maximum of one math or science lecture course with a grade of D+, D, or D- may apply toward a Statler College degree. Course attempts are included in the major GPA calculation according to university policy.

Graduating students are expected to complete a survey regarding their academic and professional experiences at WVU, as well as post-graduation job placement or continuing education plans.

Accreditation

ABET accredits college and university programs in the disciplines of applied and natural science, computing, engineering and engineering technology at the associate, bachelor and master degree levels. With ABET accreditation, students, employers and society can be confident that a program meets the quality standards that produce graduates prepared to enter a global workforce.

The following programs within the Benjamin M. Statler College of Engineering and Mineral Resources are accredited by the Computing Accreditation Committee (CAC) of ABET, <http://www.abet.org>.

- Computer Science
- Cybersecurity

The following programs within the Benjamin M. Statler College of Engineering and Mineral Resources are accredited by the Engineering Accreditation Commission (EAC) of ABET, <https://www.abet.org>.

- Aerospace Engineering
- Biomedical Engineering
- Biometric Systems Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Mining Engineering
- Petroleum & Natural Gas Engineering