

2024-2025
Academic Year

Polymer Materials Engineering, BS



Major Credits: 151 (GURs not included)

Admissions info: <https://engineeringdesign.wvu.edu/>

Course offerings subject to change

Academic advising available - see contact info below

Pre-major coursework in grey areas

Full major courses in white

| | | |
|------|--------|--------|
| Fall | Winter | Spring |
|------|--------|--------|

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|---------------|---|--|---|
| First Year | MATH 124 (5) Calculus 1 FWS | MATH 125 (5) Calculus II FWS | PHYS 162 (5) Physics w/ Calc II WS |
| | CHEM 161 (5) Gen Chemistry I FWS | PHYS 161 (5) Physics w/ Calc I FW | ENGR 115 (4) Innovation in Design WS |
| | ENGR 101 (3) Eng, Design, & Society (BCGM)FWS | CHEM 162 (5) Gen Chemistry II FWS | |

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|----------------|--|---|---|
| Second Year | ENGR 170 (4) Intro to Material Science FW | APPLY TO FULL MAJOR | FULL MAJOR COURSES BEGIN |
| | ENGR 214 (4) Statics FW | ENGR 225 (4) Mechanics of Materials WS | MFGE 261 (4) Intro to CAD S |
| | PHYS 163 (5) Physics w/ Calc III FS | CSCI 141 (4) Program. Fundamentals FWS | PME 371 (5) Intro to Plastics FS |
| | | MATH 341 or 345 (4) Statistics FWS | MFGE 250 (4) Intro Manuf. Automation S |

Eligible pre-majors apply to the major during winter quarter. Accepted students start major courses spring quarter.

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|---------------|--|---|---|
| Third Year | CHEM 251 (4) Elem. Organic Chemsitry F | PME 372 (5) Intro to Composites W | CHEM 308 (3) Polymer Chemistry S |
| | MFGE 341 (4) Quality Assurance FW | PME 342 (4) Design of Experiments WS | PME 331 (4) Injection Molding S |
| | MFGE 231 (4) Intro to Manuf. Processes FS | Tech Elective | MFGE 462 (4) CAD Using Surfaces WS |

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|----------------|--|---|---|
| Fourth Year | PME 491 (WP) (3) Project Research F | PME 492 (WP) (3) Project Proposal W | PME 493 (4) Project Implementation S |
| | PME 471 (4) Adv Materials & Char. F | PME 431 (4) Adv Materials and Proc W | PME 461 (4) Tooling for Plastics S |
| | PME 472 (4) Advanced Composites F | MFGE 332 (4) Intro To CAM & CNC FW | Tech Elective |
| | Tech Elective | Tech Elective | |

Engineering & Design

516 High Street, Bellingham, WA 98229

ENGD@wwu.edu | 360.650.3380

<http://engineeringdesign.wvu.edu>

Pre-major Advisor: Lisa Ochs

360.650.4132 | lisa.ochs@wwu.edu

NOTES & EXCEPTIONS

Students must complete **General University Requirements (GURs)** in addition to major courses.

Math 341 may be substituted for MATH 345.

Students must complete 13 credits of tech. electives - seek advising for specifics

Full majors must complete PHYS 163 by the end of spring quarter year 3.

Full majors must complete PME 342 and ENGR 225 by the end of winter quarter year 3.

Polymer Materials Engineering, BS



Admissions

Students must first be accepted by the university. **The program accepts major applications during winter quarter only.** Accepted students start major coursework spring quarter. Transfer students may apply at the same time if required coursework is complete or in progress.

| Required coursework to apply | | Applications due | Admissions Statistics |
|--|--|--|-------------------------------------|
| MATH 124 | Calculus I | Applications are due during winter quarter annually. See website for due date. Accepted students start major coursework spring quarter. Applicants are notified of decisions before spring quarter registration. | Academic Years 2019-2024 |
| MATH 125 | Calculus II | | |
| CHEM 161 | General Chemistry I | | |
| CHEM 162 | General Chemistry II | | |
| PHYS 161 | Physics w/ Calculus I | | |
| ENGR 101* | Engineering, Design, and Society | | |
| ENGR 115 | Engineering Innovation | | |
| ENGR 170 | Intro to Materials Science & Engineering | | |
| ENGR 214 | Statics | | |
| *may be waived for new transfer students students may be enrolled in no more than 3 required courses at application | | | |
| Recommended, but not required to apply | | Required short answer questions Students must answer a set of short answer questions on the application. The questions are related to the applicant's career goals, interest in the degree, academic successes/challenges, leadership experience, etc. | |
| MATH 345/341 | Engineering Statistics | | |
| PHYS 162 | Physics w/ Calculus II | | |
| PHYS 163 | Physics w/ Calculus III | | |
| CSCI 140/141 | Programming Fundamentals | | |
| ENGR 225 | Mechanics of Materials | | |

Technical Electives

13 credits required. See website for list of approved courses and specific rules. Faculty advisors must approve courses not on this list. # of technical electives required varies depending on the declaration year.

Faculty Contact Information

Professor Nicole Larson, larsonn4@wwu.edu Assistant Professor Peng Gao, gaop@wwu.edu
 Associate Professor John Misasi, misasij@wwu.edu Associate Professor Mark Peyron, mpeyron@wwu.edu