

Bachelor of Science (BS)
Degree Code 577 *
Concentration 577 C
Non-Teaching

**Program of Study for
 Technology & Environmental Design Majors
 Building Sciences
 Construction Management**

I. GENERAL EDUCATION **44**
 (PHY 1103 & 1104 for the major fulfills Science Perspective. MAT 1025 fulfills Quantitative Literacy. TEC 2029 may count toward Gen Ed if completing a theme).

II. MAJOR REQUIREMENTS **88**
 (An overall 2.0 GPA is required in the major. 18 semester hours must be completed at Appalachian. Laptop computers are required).

Junior Writing in the Discipline (WID) _____ & Senior Capstone Experience (CAP) _____ must be met.

Foundation Coursework (15 sh)

- MAT 1025 _____ (4) Algebra & Elementary Functions (or higher) (Prerequisite: pass math placement or MAT 0010)
- TEC 2029 _____ (3) Society & Technology (Gen Ed: Local to Global Perspective)
- PHY 1103 _____ (4) General Physics I (Corequisite: MAT 1025 or equivalent) (Gen Ed: Science Perspective)
- PHY 1104 _____ (4) General Physics II (Prerequisite: PHY 1103 or equivalent) (Gen Ed: Science Perspective)

Introductory Coursework (18 sh) Minimum grade of “C” in each course is required

- TEC 1728 _____ (3) Architectural Graphics & Computer Modeling (Pre/Corequisite: TEC 2708)
- TEC 2708 _____ (3) Construction Technology & Building Codes

**** Upon completion of TEC 1728 and TEC 2708, students will take the Building Science Competency Exam (a minimum grade of 70 in each part is required before taking Advanced Coursework).**

- TEC 2718 _____ (3) Building Mechanical Systems
- TEC 2758 _____ (3) Surveying, Soils and Foundations (Prerequisite: MAT 1025)
- TEC 3038 _____ (3) Commercial Construction Technology (WID)** (Prerequisite: MAT 1025, TEC 2708, TEC 2758; ENG 2001 or its equivalent)
- TEC 3039 _____ (3) Materials Science (Prerequisites: PHY 1104 and TEC 2708)

Advanced Coursework (31 sh) Minimum grade of “C” in each course is required

- TEC 3718 _____ (3) Construction Estimating (Prerequisite: MAT 1025 or higher, TEC 2708, 3038, knowledge of word processing & spreadsheets)
- TEC 3728 _____ (3) Architectural Design Studio I (Prerequisites: TEC 1728, 2708 or permission of the instructor)
- TEC 3738 _____ (3) Statics & Strength of Structures (Prerequisite: MAT 1025, PHY 1104, TEC 1728, 2708, 2758, 3039)
- TEC 3748 _____ (3) Building Science (Prerequisite: TEC 2708, 2718, MAT 1020 or higher, or permission of the instructor)
- TEC 3807 _____ (1) Construction Safety
- TEC 4103 _____ (3) Leadership in Technical Settings
- TEC 4758 _____ (3) Planning and Scheduling (Prerequisites: MAT 1025 or higher, TEC 2708, 2718, 3038, 3718)
- TEC 4768 _____ (3) Construction Administration (Prerequisite: MAT 1025 or higher, TEC 2708, 2718, 3038, 3718 Co/Prerequisite TEC 4758)
- TEC 4778 _____ (3) Integration of Building Design & Construction Management (Prerequisite: TEC 3718, 3728, 3738, Co/Prereq: TEC 4758)
- TEC 4900 _____ (6) Internship (CAP)**

Major Electives (15 sh from the following)

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| CIS 2050 _____ (3) Foundations of Information Systems | TEC 2601 _____ (3) Energy Issues & Technology |
| ECO 2030 _____ (3) Principles of Economic | TEC 3035 _____ (1-3) Architectural Field Study |
| FIN 3010 _____ (3) Survey of Finance PLN | TEC 3036 _____ (1-3) Construction Management Field Study |
| IND 2120 _____ (3) Materials and Processes I | TEC 3037 _____ (1-3) Sustainable Building Systems Field Study |
| INT 2300 _____ (3) History of Int. Design & Architecture I | TEC 4608 _____ (3) Photovoltaic System Design & Construction
(Pre: TEC 3601 or permission of the instructor) |
| INT 2310 _____ (3) History of Int. Design & Architecture II | TEC 4618 _____ (3) Sustainable Bldg. Design & Construction
(Preq: TEC 2708, or permission of the instructor) |
| MGT 3010 _____ (3) Survey of Management | TEC 4628 _____ (3) Solar Thermal Energy Technology |
| MKT 3050 _____ (3) Principles of Marketing (Preq: ECO 2030) | TEC 4711 _____ (3) Comp. Model of Renew. Energy (Preq: TEC 3601) |
| PLN 2410 _____ (3) Town, City & Regional Planning | SNH 1010 _____ (3) Beginning Spanish I (Recommended) |
| PLN 3432 _____ (4) Planning Techniques | SNH 1020 _____ (3) Beginning Spanish II (Recommended) |
| PLN 3730 _____ (3) Land Use Regulations | Or |
| _____ _____ (3) Other courses in the Dept. of Tech. & Envirn. Design related to sustainability, planning, business, or environ. topics approved by the program coordinator | SNH 1030 _____ (6) Accelerated Beginning Spanish (Recommended) |

Interdisciplinary Course (9 sh)

- COM 2101 _____ (3) Public Speaking (“C” minimum required)
- LAW 2150 _____ (3) Legal Environment of Business
- ACC 1050 _____ (3) Survey of Accounting

Major requirements that may count toward Gen Ed:	
MAT 1025	(4) Quantitative Literacy (fulfills)
PHY 1103	(4) Science Perspective
PHY 1104	(4) Science Perspective
TEC 2029	(3) Local to Global Perspective
Total Major Hrs: 88	
Gen Ed: -15	
Net Major Hrs: 73	

III. MINOR NOT REQUIRED – Recommended minors are General Business or Community and Regional Planning

IV. FREE ELECTIVES **2 - 5**
2 sh of free electives outside the major discipline are required. **122**