

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

**Program of Study for**  
**Dept. of Sustainable Tech & the Built Env**  
**Building Sciences**  
**Construction Management**

**I. GENERAL EDUCATION** ..... **44**  
 (PHY 1103 & 1104 for the major fulfills Gen Ed: Science Inquiry. MAT 1020 for the major fulfills Quantitative Literacy. TEC 2029 may count in Gen Ed: ILE; ECO 2030, PLN 2410 and TEC 2601 may count in Gen Ed: LSE).

**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) Minimum grade of “C-” in each course is required**

- MAT 1020 \_\_\_\_\_ (4) College Algebra with Applications (or higher) (Prerequisite: pass math placement or MAT 0010)
- TEC 2029 \_\_\_\_\_ (3) Society & Technology (Gen Ed: ILE: Sustainability & Global Resources; Social Sciences Designation)
- PHY 1103 \_\_\_\_\_ (4) General Physics I (Corequisite: MAT 1020 or MAT 1025 or equivalent) (Gen Ed: Science Inquiry)
- PHY 1104 \_\_\_\_\_ (4) General Physics II (Prerequisite: PHY 1103 or equivalent) (Gen Ed: Science Inquiry)

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

- TEC 1708 \_\_\_\_\_ (3) Construction Technology & Building Codes
- TEC 1728 \_\_\_\_\_ (3) Architectural Graphics & Computer Modeling (Pre/Corequisite: TEC 1708)
- TEC 2718 \_\_\_\_\_ (3) Building Mechanical Systems
- TEC 2758 \_\_\_\_\_ (3) Surveying, Soils and Foundations (Prerequisite: MAT 1020)
- TEC 3038 \_\_\_\_\_ (3) Commercial Construction Technology (Prerequisite: MAT 1020, TEC 1708, TEC 2758;)
- TEC 3039 \_\_\_\_\_ (3) Materials Science

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

- TEC 3718 \_\_\_\_\_ (3) Construction Estimating (Prerequisite: MAT 1020 or higher, TEC 1708, 3038, knowledge of word processing & spreadsheets)
- TEC 3728 \_\_\_\_\_ (3) Architectural Design Studio I (Prerequisites: TEC 1708, 1728 or permission of the instructor)
- TEC 3738 \_\_\_\_\_ (3) Statics & Strength of Structures (Prerequisite: MAT 1020, PHY 1103, TEC 1708, 1728, 2758, 3039)
- TEC 3748** \_\_\_\_\_ (3) Building Science (**WID**) (Prerequisite: TEC 1708, 2718, MAT 1020 or higher, or permission of the instructor; RC 2001 or its equivalent)
- TEC 3807 \_\_\_\_\_ (1) Construction Safety
- TEC 4103 \_\_\_\_\_ (3) Leadership in Technical Settings
- TEC 4758 \_\_\_\_\_ (3) Planning and Scheduling (Prerequisites: MAT 1020 or higher, TEC 1708, 2718, 3038, 3718)
- TEC 4768 \_\_\_\_\_ (3) Construction Administration (Prerequisite: MAT 1020 or higher, TEC 1708, 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) Information Technology in the Organization                                                                                            | TEC 2601 _____ (3) Energy Issues & Technology (Gen Ed: LSE)                                                      |
| ECO 2030 _____ (3) Principles of Microeconomics (Gen Ed: LSE,SS)                                                                                         | TEC 3035 _____ (1-3) Architectural Field Study                                                                   |
| FIN 3010 _____ (3) Survey of Finance PLN                                                                                                                 | TEC 3036 _____ (1-3) Construction Management Field Study                                                         |
| IND 2110 _____ (3) Introduction to Fabrication                                                                                                           | TEC 3037 _____ (1-3) Sustainable Building Systems Field Study                                                    |
| INT 2300 _____ (3) History of Int. Design & Architecture I                                                                                               | TEC 3520 _____ (1-3) Instructional Assistant                                                                     |
| INT 2310 _____ (3) History of Int. Design & Architecture II                                                                                              | TEC 4608 _____ (3) Photovoltaic System Design & Construction                                                     |
| MGT 3010 _____ (3) Survey of Management                                                                                                                  | (Prerequisites: TEC 1708, TEC 1728, TEC 2029, TEC 2601, TEC 2718, and TEC 3638 or permission of the instructor.) |
| MKT 3050 _____ (3) Principles of Marketing (Preq: ECO 2030)                                                                                              | TEC 4618 _____ (3) Sustainable Bldg. Design & Construction                                                       |
| PLN 2410 _____ (3) Town, City & Regional Planning(Gen Ed: LSE,SS)                                                                                        | (Preq: TEC 1708, or permission of the instructor)                                                                |
| PLN 3432 _____ (4) Planning Techniques                                                                                                                   | TEC 4628 _____ (3) Solar Thermal Energy Technology                                                               |
| PLN 3730 _____ (3) Land Use Regulations                                                                                                                  | (Prerequisites: TEC 1708, TEC 1728, TEC 2029, TEC 2601, TEC 2718, and TEC 3638 or permission of the instructor.) |
| _____ _____ (3) Other courses in the Dept. of STBE related to sustainability, planning, business, or environ. Topics approved by the program coordinator | TEC 4711 _____ (3) Comp. Model of Renew. Energy Prerequisite: TEC 3638 or permission of the instructor           |
|                                                                                                                                                          | SNH 1010 _____ (3) Beginning Spanish I ( <b>Recommended</b> )                                                    |
|                                                                                                                                                          | SNH 1020 _____ (3) Beginning Spanish II ( <b>Recommended</b> )                                                   |
|                                                                                                                                                          | Or                                                                                                               |
|                                                                                                                                                          | SNH 1030 _____ (6) Accelerated Beginning Spanish ( <b>Recommended</b> )                                          |

**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

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

**IV. FREE ELECTIVES** ..... **2 - 8**  
**2 sh of free electives outside the major discipline are required.** **122**

Major requirements that may count toward Gen Ed:	
ECO 2030	(3) Liberal Studies Exp; SS
MAT 1020	(4) Quantitative Literacy
PHY 1103	(4) Science Perspective
PHY 1104	(4) Science Perspective
PLN 2410	(3) Liberal Studies Exp; SS
TEC 2029	(3) Integrative Learning Experience
TEC 2601	(3) Liberal Studies Exp
Total Major Hrs: 88	
Gen Ed: -24	
Net Major Hrs: 64	