Bachelor of Science (BS)  
Non-Teaching  
Degree Code 578A  

**I. GENERAL EDUCATION**  

**II. MAJOR REQUIREMENTS**  

*An overall 2.0 GPA is required in the major. 18 sh must be completed at Appalachian.*

- **MAT 1025 (4)** Algebra and Elementary Functions (or higher) (Prerequisite: pass math placement or MAT 0010)
- **TEC 2029 (3)** Society & Technology (Gen Ed theme: LtoG: Sustainability and Global Change)
- **TEC 3601 (3)** Energy Issues and Technology (Gen Ed theme: LtoG: Global Resources)

And select 7 courses from the following:

- **GRA 2102 (3)** Electronic Prepress (Prerequisite: GRA 1012)
- **IND 2012 (3)** Product Design
- **IND 2120 (3)** Materials and Processes I
- **IND 2201 (3)** Design Drawing I
- **IND 3120 (3)** Materials and Processes II (Prerequisites: IND 2120, IND 2901)
- **TEC 1023 (3)** Introduction to Electronics (Prerequisite: MAT 0010 or placement test)
- **TEC 1728 (3)** Architectural Drafting (Prerequisite or Corequisite: TEC 2708)
- **TEC 2708 (3)** Construction Technology & Building Codes
- **TEC 2718 (3)** Building Mechanical Systems
- **TEC 3039 (3)** Materials Science
- **TEC 3728 (3)** Residential Architecture (Prerequisites: TEC 1728, TEC 2708 or instructor permission)

**Interrdisciplinary Coursework** (select any 3 courses: 9-11 sh)

- **ANT/SD 4570 (3)** Sustainable Development in the Modern World System
- **BIO 3312 (3)** Environmental Studies
- **ECO 3620 (3)** Environmental and Resource Economics (Gen Ed theme: LtoG: Global Resources)
- **SD 2400 (3)** Principles of Sustainable Development (Gen Ed theme: LtoG: Sustainability and Global Change)
- **SD 3100 (4)** Principles of Agroecology
- **SD 4100 (4)** Agroecology Practices, Systems & Philosophies (Prerequisite: SD 3100 or instructor permission)
- **MGT 3010 (3)** Survey of Management
- **PHL 2015 (3)** Environmental Ethics (Gen Ed theme: LtoG: Sustainability and Global Change)
- **PHY 3140 (3)** Environmental Physics (Prerequisite: PHY 1104 or PHY 1151)
- **PLN 2410 (3)** Town, City and Regional Planning

Other courses in sustainability, geography and planning, business, or environmental topics approved by the advisor; memo must be sent to Dean's Office.

**Technical Specialization** (select any 7 courses: 19-21 sh)

- **TEC 3520 (1)** Instructional Assistance (Prerequisite: Jr or Sr Standing, Approved Contract Required)
- **TEC 4604 (3)** Sustainable Transportation
- **TEC 4605 (3)** Sustainable Resource Management
- **TEC 4606 (3)** Sustainable Water and Wastewater Technology
- **TEC 4607 (3)** Wind and Hydro Power Technology (Prerequisite: TEC 3601 or instructor permission)
- **TEC 4608 (3)** Photovoltaic System Design and Construction (Prerequisite: TEC 3601 or instructor permission)
- **TEC 4618 (3)** Sustainable Bldg Design & Construction (Prerequisite: TEC 2708 or instructor permission)
- **TEC 4628 (3)** Solar Thermal Energy Technology
- **TEC 4700 (3)** Biofuels Technology
- **TEC 4708 (3)** Building Science (Prerequisites: TEC 2708, MAT 1020 or higher, or instructor permission)
- **TEC 4711 (3)** Computer Modeling of Renewable Energy Systems (Prerequisite: TEC 3601)

**Senior Project/Thesis (3 sh)**

- **TEC 4638 (3)** Contemporary Problems in Appropriate Technology (CAP) (a minimum grade of “C” is required) (Prerequisite: TEC 4608 or instructor permission)

**Electives/Internship (12 sh)**

- **TEC 4900 (3-6)** Internship

**MINOR NOT REQUIRED**

**IV. FREE ELECTIVES** (to total a minimum of 122 sh)

- 2 sh of free electives outside the major discipline are required.

*Note: MAT 1025 and TEC 2029 or TEC 3601 taken for the major may count toward General Education.*