I. GENERAL EDUCATION .................................................................................................................. 44
(MAT 1020 taken for the major fulfills Quantitative Literacy. Science sequence required for major fulfills Science Inquiry. Up to 15 hours of required/optional courses in the major count in Gen Ed as noted on this POS.)

II. MAJOR REQUIREMENTS ........................................................................................................... 89 - 93
An overall 2.0 GPA is required in the major. 18 semester hours must be completed at Appalachian.
Junior Writing in the Discipline (WID) ______ & Senior Capstone Experience (CAP) ______ must be met.

General Education courses also “required” for the major
MAT 1020 (4) College Algebra with Applications (or higher) (Prerequisite: must pass the math placement or MAT 0010)
BIO 1201 ___, BIO 1202 ___ & BIO 1203 ___ or CHE 1101 __/1110 ___ & CHE 1102 ___/1120 ___ or PHY 1103 ___ & PHY 1104 ___ (8)

Introductory Technology & Environmental Design Engineering Coursework (28 sh)
IND 2110 (3) Introduction to Fabrication
TEC 1708 (3) Construction Technology & Building Codes
TEC 1728 (3) Architectural Graphics & Computer Modeling (Pre/Coreq. TEC 1708)
TEC 2029 (3) Society & Technology (Gen Ed: ILE: Sustainability and Global Resources and Social Science designation)
TEC 2601 (3) Energy Issues & Technology (Gen Ed: Liberal Studies Experience)
TEC 2718 (3) Building Mechanical Systems
TEC 3007 (1) Construction Safety
TEC 3638 (3) Foundations of Sustainable Technology (WID) (Prerequisites: RC 2001 or its equivalent; TEC 2029 and TEC 2601 or permission of the instructor)

And select two courses from the following:
GRA 1022 (3) Electronic Document Design I
IND 2012 (3) Product Design (Gen Ed: Liberal Studies Experience and Fine Arts designation)
IND 3004 (3) Welding (Prerequisite: IND 2004)
TEC 1023 (3) Introduction to Electronics (Prerequisite: passing the math placement test or completion of MAT 0010)
PHO 1022 (3) Photographic Imaging I (Prerequisite: passing the math placement test or completion of MAT 0010)

Interdisciplinary Coursework (12 - 14sh from any 4 courses. See the Sustainable Technology Program Coordinator for complete list)
Recommended courses include:
BIO 3312 (3) Environmental Studies
ECO 2620 (3) Environmental & Resource Economics (Gen Ed: LSE; Social Science Designation)
GHY 2812 (3) Geospatial Data & Technology
GHY 3820 (3) GIS for Environmental & Social Sciences
MGT 3010 (3) Survey of Management
PHL 2015 (3) Environmental Ethics (Gen Ed: ILE: Sustainability and Global Resources)
PHY 1830 (3) The Physical Principles of Energy & Sustainability
(Please: PHY 1104 or PHY 1151)
PLN 2410 (3) Town, City and Regional Planning (Liberal Studies Experience and Social Science Designation)
S D 2400 (3) Principles of Sustainable Development
(IIE: Sustainability and Global Resources)
S D 3100 (3) Principles of Agroecology
S D 4100 (4) Agroecology Practices, Systems & Philosophies
(Prerequisite: S D 3100)

Technical Specialization (27 sh)
The following are required courses:
TEC 4607 (3) Wind and Hydro Power Technology (Prerequisite: TEC 1708, 1728, 2029, 2601, 2718, & TEC 3638 or permission of the instructor)
TEC 4608 (3) Photovoltaic System Design & Construction (Prerequisite: TEC 1708, 1728, 2029, 2601, 2718, & TEC 3638 or permission of the instructor)
TEC 4628 (3) Solar Thermal Energy Technology (Prerequisite: TEC 1708, 1728, 2029, 2601, 2718, & TEC 3638 or permission of the instructor)
TEC 4711 (3) Computer Modeling of Renewable Energy Systems (Prerequisite: TEC 3638 or permission of the instructor)

And select 15 sh from the following:
TEC 3604 (3) Sustainable Transportation (Prerequisites: TEC 2601 & TEC 3638, or permission of the instructor)
TEC 3605 (3) Sustainable Resource Management (Prerequisites: TEC 2029, or permission of the instructor)
TEC 3606 (3) Sustainable Water and Wastewater Technology (Prerequisites: TEC 2029, or permission of the instructor)
TEC 3748 (3) Building Science (Prerequisites: TEC 1708 and 2718 & MAT 1020 or higher, or permission of the instructor)
TEC 4618 (3) Sustainable Building Design & Construction (Prerequisite: TEC 1708 or permission of the instructor)
TEC 4700 (3) Biofuels Technology (Prerequisite: TEC 3638 or permission of the instructor)

Capstone (3 sh)
TEC 4638 (3) Contemporary Problems in Sustainable Technology (CAP) (“C” minimum required) (Prerequisite: TEC 4608 or permission of instructor)

OR
TEC 4900 (3) Internship (CAP)

Technical Electives (7 -9 sh)
Any TEC courses, study abroad experience, Instructional Assistantships (TEC 3520) or Interdisciplinary courses listed above not already used elsewhere in the major. See the Sustainable Technology Program Coordinator for complete list of approved electives


III. MINOR NOT REQUIRED

IV. FREE ELECTIVES (to total a minimum of 122 sh for this major) .......................................................................................................................... 2-16
2 sh of free electives outside the major discipline are required.