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 Coursework (28 sh)**
   
   IND 2110 (3) Introduction to Fabrication
   TEC 1708 (3) Construction Technology & Building Codes
   TEC 1728 (3) Architectural Graphics & Computer Modeling (Prereq: 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 3507 (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 I
   IND 2012 (3) Product Design (Gen Ed: Liberal Studies Experience and Fine Arts designation)
   IND 3004 (3) Welding (Prerequisite: IND 2110 or IND 2120)
   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 (Gen Ed: ILE: Sustainability & Global Resources)
   PHY 3140 (3) Environmental Physics (Prerequisite: PHY 1104 or PHY 1151)
   PLN 2410 (3) Town, City and Regional Planning (Social Science Designation & Social Science Designation)
   S D 2400 (3) Principles of Sustainable Development (ILE: Sustainability and Global Resources)
   S D 3100 (3) Principles of Agroecology
   S D 4100 (4) Agroecology Practices, Systems & Philosophies (Prerequisite: S D 3100 or permission of the instructor)
   
   **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 2601 and 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 2601 and TEC 3638 or permission of the instructor)
   
   **Capstone (3 sh)**
   
   TEC 4658 (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
   
   ______ (3) ______ (3) ______ (3)
   
   ______ (3) ______ (3) ______ (3)
   
   **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.