



UNIVERSITY OF MASSACHUSETTS - AMHERST  
INDEPENDENT STUDY FOR BIOSTEAD INITIATIVE  
SYLLABUS FOR [SEMESTER AND YEAR]:



## APPLICATION INFORMATION

### STUDENT SECTION

Name:

Email:

Student ID #:

Phone:

Major(s):

Year of Graduation:

Address:

Street:

City/Town:

State:

ZipCode:

### ADVISOR SECTION

Name:

Email:

College or Department:

### COURSE LOGISTICS

Number of Credits (3hrs/wk per 1 credit):

Grading (Letter Grade or Pass/Fail):

## DESCRIPTION

The BioSTEAD Initiative is a student-led response to humanity's call for co-independence, self-sufficiency, and ecological integrity. Stead is defined as both (1) a place or locality and, as a transitive verb, (2) to be of service. In this regard, BioSTEAD is a living edifice representing Sustainable Technology, Environmental and Agricultural Development. The core purpose of this initiative is to develop an open-source process for educational institutions around the world to implement climate-specific green building research sites, to provide an academic environment for sustainable development experimentation and education, while serving as a model for sustainable living in view of local and international communities. This independent study allows the student to receive academic credit for contributing to the BioSTEAD Initiative.

Check off your committee(s):

## **HANDBOOK COMMITTEE**

### **RESPONSIBILITIES**

- Writing the BioSTEAD Handbook for future implementations at UMass and other educational institutions and surrounding communities
- Archiving shared documents (meeting minutes, designs, legal, etc) from the committee communication channels (asana.com) into respective Google Drive folders for future reference.
- Planning, writing, reviewing and revising papers for publication, [conferences](#), etc.
- Researching and corresponding with all other committees

### **REQUIREMENTS**

- Strong writing skills and/or a drive to cultivate one's professional writing skills
- Skills in word processing programs such as Microsoft Office Word, LaTeX, etc., and/or a drive to develop these skills
- Able to work well in teams. Good interpersonal skills for collaborating with all other committees and/or a willpower to nurture this skill
- Experienced in researching peer-reviewed articles and/or inspired to gain experience
- Being of any age, income, and culture

## **COMMUNICATIONS COMMITTEE**

### **RESPONSIBILITIES**

- Public relations - maintain platform for internal communication (asana.com) and public communications
- Maintain contact lists
- Marketing & Web presence
- Maintain website and social media pages
- Promotional videos, especially for crowd-funding campaigns, Event flyers
- Handle recruitment. Ensure newcomers are paired in the committees of their choice using our communication platform
- Activities, event planning
- [STEADTalks](#) Student, Faculty and Professional lecture series to be video recorded and uploaded to our youtube channel for educational purposes
- Documentary filming

### **REQUIREMENTS**

- Strong computer skills using applications (google, asana, wordpress, facebook, etc.) and/or a drive to cultivate one's professional writing skills
- Web development experience and/or seeking experience
- Able to work well in teams. Good interpersonal skills for outreach meetings, recruitment and writing newsletters and/or a willpower to nurture this skill
- Multimedia production skills and/or motivated to learn
- Experience in event planning and/or interest in gaining experience
- Being of any age, income, and culture

## **DESIGN COMMITTEE**

### **RESPONSIBILITIES**

- Construction documents: provide service and/or consult with specialists
- Landscape architects, Structural, Mechanical Electrical Plumbing (MEP) and fire protection (Water catchment systems, Renewable energy systems, Telecommunication systems), Codes, Sustainable design and lighting, Structural engineer, Civil, Site / hazmat, Acoustics audiovisual, Accessibility, Cost estimating, Hardware, Specifications, Wood shop / digital fabrication.
- Collaborating with the Legal Committee on permits required for build from nation, state, town, and institution.
- Collaborating with the Permaculture Committee on ecological design and food production
- Identify resource providers

### **REQUIREMENTS**

- Technical background in building and construction technology, architecture, landscape architecture, mechanical engineering, electrical and computer systems engineering, civil and environmental engineering and/or a willpower to learn
- Strong writing skills for the construction documents and/or a drive to cultivate one's professional writing skills
- Able to work well in teams. Good interpersonal skills for consulting with professionals and contributing effectively to design charrettes and/or a willpower to nurture this skill
- Being of any age, income, and culture

## **PERMACULTURE COMMITTEE**

### **RESPONSIBILITIES**

- Permaculture food system designs: provide service and/or consult with specialists
  - Greenhouse architecture
  - Surrounding food forest implementations
  - Surrounding eco-village
- Cultivation of medicinal foods
- Cultivation of natural building materials
- Collaborating with the Design Committee on ecological design and architecture
- Identify resource providers

### **REQUIREMENTS**

- Certified and/or experienced in permaculture design and/or motivated to learn the art
- Able to work well in teams. Good interpersonal skills for collaborating with consultants and other committees and/or a willpower to nurture this skill
- Being of any age, income, and culture

## **FINANCE COMMITTEE**

### **RESPONSIBILITIES**

- Manages the budget and accounts
  - Purchasing card
- Researches and applies to grants and awards, in collaboration with the Handbook Committee
- Launching and managing the crowd-funding campaign(s)
  - kickstarter, gofundme, indiegogo, startjoin
- Collaborate with Legal, Design and Permaculture Committees regarding consultancy cost
- Collaborating with the Legal Committee on cost of permits
- Collaborating with the Design Committee on material cost as well as cost of procurement regarding transportation, service fees, etc.

### **REQUIREMENTS**

- Experience in accounting, maintaining a budget, income streams and purchasing for a large project and/or seeks to gain this experience
- Strong grant writing skills and/or a drive to cultivate this skill
- Experienced in researching for grants and/or a motivation to gain this experience
- Computer skills and experience working with crowd-funding platforms and/or willing to learn
- Able to work well in teams. Good interpersonal skills for collaborating with the other committees and/or a willpower to nurture this skill
- Being of any age, income, and culture

## **LEGAL COMMITTEE**

### **RESPONSIBILITIES**

- Researches and manages the permits needed for this build in collaboration with the Design Committee
  - Building, zoning, land, permission from UMass, etc.
- Purchases permits with the Finance Committee
- Write formal documents / contracts for open-sourcing the work that is done with the BioSTEAD that all development may be available to the public

## **REQUIREMENTS**

- Experience with laws (zoning, etc.) in the context of building and/or seeks to gain this experience
- Strong formal document writing skills for the contracts and/or a drive to cultivate this skill
- Experienced in researching law and/or a motivation to gain this experience
- Able to work well in teams. Good interpersonal skills for collaborating with the other committees and/or a willpower to nurture this skill
- Being of any age, income, and culture

## **CULTURE & IMPACT COMMITTEE**

### **RESPONSIBILITIES**

- Gather background information on the local community
  - Report on the socioeconomic distribution
  - Report on the local resources provided by the land
  - Report on the education and health metrics
- Impact Theories
  - Hypothesize the effect of introducing this way of living to the community.
  - Appeal to the needs of the university with an argument for BioSTEAD meeting those needs regarding carbon footprint, sustainable initiatives, student involvement, the campus' image, so forth.
- Collaborate with the Handbook Committee about adding this vital information to the handbook, papers and proposals.

### **REQUIREMENTS**

- Background in social thought and political economy and/or a drive to understand this discipline more
- Experience in gathering sociological data and synthesizing into a report and/or seeking this experience
- Able to work well in teams. Good interpersonal skills for collaborating with the community, the university and the other committees and/or a willpower to nurture this skill
- Being of any age, income, and culture

## **SPECIFICATION OF STUDENT RESPONSIBILITIES**

Date

Task (e.g. designs, papers, STEADTalk, organizing, workshops, outreach)

COMMENTS