

## SECTION 3: STUDENT CHAPTERS

### 3.1 Overview:

EWB-USA Believes that the collaboration with student chapters is essential to the successful achievement of EWB-USA's Mission. The establishment of a relationship between EWB-USA and universities will encourage a generation of new engineers to understand that their future roles as engineering professionals may profoundly contribute toward improving health and reducing poverty levels throughout the world.

Engineers Without Borders- USA is the national umbrella organization that supports the chapters. EWB-USA provides leadership, project reviews, technical and logistical support. EWB-USA screens projects so that only the ones appropriate for EWB and students are available to chapters. We provide the foundation for the projects and give the ability to apply for non-profit grants and scholarships. EWB-USA establishes the platform for quality control of the final design through the interaction of student chapters with the Technical Advisory Committee (TAC).

It is our experience that successful EWB chapters show basic characteristics: strong student leadership, support from the local engineering school, strong faculty mentorship, and access to some funding and appropriate projects.

#### 3.1.1) The five service goals of a University chapter:

1. Create a sense of excitement and enthusiasm about solving technical development problems within a cultural and social context by bringing together those who are interested, and encouraging discussion amongst them to solve the problem together.
2. Organize a project team(s) to design and implement engineering projects either locally or internationally.
3. Publicize research opportunities and encourage students to undertake research on technical development problems, and to ensure that the completed research is returned to the EWB-USA database.
4. Work with EWB-USA to ensure the quality of the engineering package and the end product for the community
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#### 3.1.2) The University Student Chapters' role in this relationship is to:

1. Support the values and mission of EWB-USA
2. Provide students in good standing with the opportunity to form and participate in a student chapter that has the same mission and goals as EWB-USA
3. Provide a faculty advisor who is willing to assume responsibility for the student chapter
4. Provide chapter leadership
5. Provide project funding and travel expenses.
6. Increase awareness of development issues among engineering students and to offer those interested students an opportunity to help solve some of the technical challenges of the developing world
7. Foster cultural understanding and awareness among university students.
8. Provide training for a new kind of internationally responsible engineering student
9. Help disadvantaged communities meet their basic needs

#### 3.1.3) EWB-USA's role in this relationship is to:

1. Coordinate & review projects
2. Mentor of volunteer students
3. Act as a data/documentation repository

4. Develop relationships with professional and institutional partners
5. Link cadre of human capability with the broad range of development programs and funding
6. Provide the non-profit organization through which all grants, donations, and scholarships can be made
7. Help seek funding from sources to help with project implementation

3.1.4) The Students' role in this relationship is to:

1. Support the values and mission of EWB-USA
2. Be aware of the risks and dangers of the projects in which they are involved
3. Realize that they will have no right to compensation for themselves or their beneficiaries for their participation in such projects.
4. Work within the project framework and be an integral part of the design team.
5. Be responsible for those tasks for which one has volunteered.
6. Be aware of the cultural and social implications of the proposed technological changes brought about by the implementation of a project

3.1.5) Benefits of Founding & Operating an EWB Chapter:

1. Develop leadership skills that are necessary to thrive in this world. Founding a chapter brings the unique opportunity to develop inspirational leadership, above and beyond the organizational and results-oriented leadership that are required to run a student organization.
2. Open doors for your future career: Within the university, you will develop contacts with the dean, faculty, and professionals.
  - a. The network of connections you develop will be beneficial for networking.
3. Polish your resume. In an increasingly tight job market, companies look to hire students who went above and beyond the call of duty.
4. Increase your chances of obtaining an internship. Qualities that are sought after, in all interns, are passion and leadership.
5. Most importantly, you will be able to "make a difference".
6. Opportunity to interact with and appreciate different cultures

3.1.6) Benefits to the University:

1. Founding an EWB chapter will help the university by offering, to those interested students, a chance to pursue and develop other areas of interests.
2. A chapter will attract high quality applicants by offering them the chance to engage in research on topics which are pertinent and in which they can make a difference.
3. EWB Projects give students the chance to have hands-on experience.
4. You have a chance to have a lasting, positive impact on the developing world. Thank you for being a part of all that we do.

3.1.7) What does a chapter do?

1. Attracts new members
  - a. The chapter provides a means for new students of all disciplines to help make a difference.
  - b. EWB is open to engineering students and non-engineering students alike.
2. Develop a website with links to EWB projects / news
3. Research local organizations: Rotary clubs, lions club, YMCA, YWCA for projects and funding

4. Hold entire chapter meetings once a month or as necessary (individual project meetings will most likely meet several times per week)
5. Provide training for other students
6. Provide a technical resource for students by collecting technical documents and providing a storage place for those documents.
7. Find and Apply for projects.
8. Forms sub-committees to work on those projects
9. Fundraises and manages funds for projects

### 3.2 Getting Started: Steps for Starting a New Student Chapter

While challenging, starting a chapter will be very rewarding; there is no better feeling than seeing a room full of interested students listening to a speaker talk about the difficulties of designing and implementing appropriate and sustainable engineering projects in a partner community. To help minimize any obstacles, this section suggests some steps to start and sustain a successful chapter.

#### 3.2.1) Initial Setup of the Chapter

1. Before starting a chapter, it is necessary to have in place:
  - a. A driven leader: This person can either be a faculty member or a student.
  - b. A few excited students: It is important to have 2-3 other students who are excited and willing to help grow the chapter.
  - c. Faculty support: We have found that having a faculty member, and/or the Dean behind the chapter, provides continuity and guarantees official support.
2. Faculty Advisor: Find a faculty advisor who is willing to be involved in EWB. Make sure he or she understands that this may have a large time commitment, as projects often need a lot of guidance.
3. Contact EWB-USA: Call or e-mail the main office about becoming a member and to order the DVD. The DVD can also be ordered from our website or by contacting our Membership Services Manager Bill Farr at: [chapters@EWB-USA.org](mailto:chapters@EWB-USA.org).
4. Create a Student Following: Once you have the faculty support and the membership in place, you must publicize the organization and generate interest among the student body. One of the best ways is to call a well publicized initial meeting (see the next section for more information). Your goal is to find between 10 and 20 people interested in participating in the initial meeting. We have a PDF poster available on CD that you can use to produce posters to put up (with university permission) around the campus. More information about publicity materials is available at: <http://EWB-USA.org/news-downloads>.
  - d. Please note: The first DVD and some other materials are available free to new members or chapters. Additional copies are available for the cost of materials, plus shipping, and handling.
  - e. We also suggest scheduling an initial meeting with a couple of high profile speakers. One can be from EWB-USA, and the other can be high profile development individual. Due to our limited funding, EWB requests that you help to cover travel costs, if possible.
5. Chapter Agreement: Each chapter must submit to the EWB-USA national organization, a signed EWB-USA *Student Chapter Agreement (#302)* found on the website. This must be completed by the student president and the faculty advisor and sent to EWB-USA within 45 days of forming the chapter. This can be found at: <http://EWB-USA.org/auxdocs/ChapterAgreement>
  - a. The chapter agreement is to be renewed each year and submitted to the office at the beginning of the school year by September 15<sup>th</sup>. The chapter information such as the faculty member, president, vice president, and all their *Chapter Contact Information (#303)* should be submitted with this agreement.

6. Becoming a Club: Look into how you become a club at your University.
7. Elect a governing board for the chapter: This is usually done at one of the first meetings. See section 3.2.3.
8. Subscribe to the Chapters List Serve
  - a. This list serve is for EWB-USA to officially communicate with the chapters.
  - b. The list serve is EWB\_chaptercontacts@yahoogroups.com.
  - c. This will be used for us to contact all of the chapters, and also for you to contact each other (to ask if anyone else has contacts for buying solar panels in Honduras, for example...)
    - i. You may have several people at your chapter subscribe to this list, however your chapter **MUST** have at least one person subscribe, and remember to have a new person subscribe when you change officers.
  - d. To send email to all the chapters, send it to EWB\_chaptercontacts@yahoogroups.com
9. Set up your chapter website:
  - a. There are sample website formats available on the EWB-USA website.
  - b. Inform EWB-USA of your chapter website so that we can post a link to it on our website at chapters@EWB-USA.org.

### 3.2.2) The initial meeting generally consists of three parts:

1. Introduce attendees to EWB-USA and show the six minute EWB-USA DVD.
2. Talk about a specific element of development (You may want a Keynote speaker)
3. Provide an overview of the chapter organization. The designated president should encourage participants to join the chapter and EWB-USA.
  - a. Explain the general structure of EWB and its mission
  - b. Inform the meeting of any projects that you are applying for
  - c. Explain about the membership fee for EWB-USA & why it is important (see section 2.3)
  - d. Student member (\$15) & faculty member (\$50)
  - e. Let members know that they are being asked to participate in informational meetings; that some may conduct research, and that all are eligible to participate in projects, when available.
  - f. For motivated individuals, they can serve on the chapter's executive board
4. Talk about possible upcoming projects, travel, and possible cultural experiences

### 3.2.3) The role of the Executive Board:

1. Ask that each executive board member be a current and active member of EWB-USA
2. Create a constitution, or bylaws, and create an official chapter - EWB-USA can provide you with a basic constitution, or bylaw templates which you can use as an example. Each university may have its own guidelines for forming a student organization.
3. Create continuity by ensuring that at least two members of the executive board are not in their senior year.
4. Ensure that students are actively involved in all aspects of your EWB University Chapter
5. Once you have recruited enough students and one or two faculty advisors, you may want to register your chapter as a club on your campus. This helps to formalize your group in the "eyes" of your university's administration. In return, you may receive from them basic assistance (office space for instance) to help you operate the club and small but sustainable sources of funding that will help you grow in your early stages of development. Small grants or other program monies may become available to your chapter and help you meet your basic

chapter's expenses and/or activity costs. In return, make sure to tell them the great work that you are doing with their funding.

### 3.3 Operation of the Student Chapter:

#### 3.3.1) Holding Effective Meetings: Board Meetings and Chapter Meetings

1. Plan meetings in advance and give adequate notice: post on your chapter website or set up an e-mail list. (Yahoo offers e-mail lists)
2. Appoint or ask for a volunteer to take accurate minutes. Then have them typed and posted on your website (password protected)
3. Make sure to involve and interest new members. Try to make sure that experienced people do not do all of the work.
4. Always have an agenda and stick to it
5. Try to make the meetings as short as possible since students have a lot of work.
6. Demand an orderly meeting to make effective use of time.
7. Start and end on time.
8. Schedule and develop agenda for the next meeting before you adjourn

#### 3.3.2) Funding your Chapter

1. You should start fundraising when you start the chapter or as soon as you receive a project.
  - a. EWB-USA does not usually provide funding for projects. Fundraising must be done by the chapter.
  - b. It is best to think of fund raising as an on-going project
2. EWB-USA is the umbrella organization under which funding is obtained. This critical role compliments proposals from all chapter organizations. EWB-USA direct funding is used to support project coordination, quality control, chapter and membership support services, as well as the EWB-USA National Conference. See the Funding, Development & Outreach section.
  - a. Some methods on finding funding:
    - i. University grants
    - ii. Corporate funding
    - iii. Lectures and local projects
    - iv. Events / projects
    - v. Relatives, Friends, neighbors
3. Some ideas on how to fund your chapter
  - a. Many Universities have small projects grants available for students
  - b. Some Universities provide funding for clubs
  - c. You may want to ask members for a small membership fee. However, keep in mind that these students have already paid the EWB-USA membership fee.
  - d. You can sponsor fundraising events for your chapter.
    - i. Some ideas for this are charging at a local club for people to hear a local band, sports tournament, contest, or maybe a raffle.
4. Financials:
  - a. You must decide on where you will keep your funds that you do raise. Funds must be held through your University or through EWB. This is because of the detailed financial records that must be kept for taxes.
    - i. EWB holds the funds

1. All checks must be to EWB-USA
2. To obtain reimbursements for EWB related items, an Admin Expense Report (#202) or a Project expense report (#506) must be filled out and submitted to EWB. EWB will then issue a reimbursement check. Please keep in mind that many people at EWB are volunteers.
3. You should still have a treasurer keeping detailed records
- ii. The funds go through your University
  1. You should talk with your university about how to set up a bank account through them.
  2. You will need a detailed financials section in your project report.
- iii. Each receipt should be labeled as to whether it is for one of the following three categories:
  1. Supplies (i.e. building materials, piping, cement etc.)
  2. Travel (i.e. Airfare, Hotels, Meals, other transportation etc.)
  3. Meeting/Phone/Misc

### 3.3.3) Before your Chapter has a project (or even while it has a project):

While the main purpose for students to join EWB is to work on projects, there are things your chapter can do before they have an official project:

1. Research projects: These can be assigned to interested students and then presentations can be given to the group.
  - a. We encourage chapters to undertake larger scale research projects and become “experts” in a particular area. The chapter will try to break down a large topic and coordinate researching and creating potential solutions. The research may involve contacting industry experts (perhaps from a local Professional Partners chapter) and researching existing sources to create an informational database.
  - b. Once the project is at the prototype stage, the chapter will be in charge of driving the project through testing, re-design, manufacture, and implementation in the developing world. EWB-USA will facilitate the process through funds (when available) and contacts to help in project management and implementation.
  - c. Some topics include: Researching renewable energy sources, installing power sources, water sanitation and testing, filtration, water purification, chemical treatment, concrete mixing, different cultures, and many others that will be useful once your chapter has a project.
    - i. EWB-USA can supply more topics if needed.
2. Find projects through clubs and NGO’s
  - a. Clubs such as the rotary club can sometimes have projects. Make sure to read through the projects section of this document.

### 3.3.4) Working on a Project:

1. Your chapter should thoroughly read the “Projects Section” of this document.
2. Your project should have a Mentor, Liaison and a project lead.
  - a. Your chapter Must have a mentor to have a project. The mentor must be found within one month of obtaining a project through EWB. See section 3.3.5.
3. Make sure everyone has assigned roles and due dates for their part of the project.
4. Projects need cooperation from all of their members. Teamwork should be stressed.
5. If a project does not meet EWB-USA’s safety design standards, it is possible that the project will not be approved, and you will need to move your implementation date (i.e. you will not

be able to travel to the country to create your design at that time). Pay close attention to all EWB-USA deadlines.

6. New Projects:
  - a. In general projects can originate from various sources such as individuals, groups, or NGOs contacting EWB-USA. They can also originate from a recognized chapter, or through personal contacts. Before embarking on projects, you need to familiarize yourself with the way EWB-USA conducts its projects.
  - b. In all cases, all project requests go through a thorough review before a project can be labeled as a EWB-USA project. The group or individual requesting the help of EWB-USA must complete a detailed *Project Application Form (#501)*, which is available from the “Downloads” section of the EWB-USA web site. The project application is then reviewed by the Technical Advisory Committee (TAC) during a monthly meeting. See the “TAC” section for more information.

### 3.3.5) Communications and Relations with EWB-USA

1. Liaison
  - a. Liaisons are to help keep projects on track and to guide them through the project review process.
  - b. They are to help with paperwork and act as a go between for the project and EWB-USA
2. Project Mentors
  - a. The mentor can be a professor or an engineer from industry.
  - b. Your chapter Must have a mentor to have a project. The mentor must be found within one month of obtaining a project through EWB.
  - c. Project mentors work more closely with the students and the Liaison. The Liaison is responsible for the communications with EWB-USA
  - d. He or she should have training in the area of the project and should also provide technical assistance for the students.
  - e. For more information on the Mentor’s responsibilities please see section 4.5.1
  - f. If you need help finding a mentor, please contact EWB-USA so that we can help you locate someone.
3. Project Lead: The project lead is either your faculty advisor or the mentor. This person corresponds with the TAC Liaison and takes responsibility for the timeline of the project. For more information see section 4.5.2
4. Student representatives on TAC and OPCOM (regional)
  - a. The TAC and OPCOM should have student representatives. There does not need to be a representative from each school. For more information, refer to the “Organizational Roles Section” of this sourcebook.
5. Once a month EWB-USA will send out an e-mail request to all professionals for mentors, liaisons, professional reviewers and other related volunteer positions. If your chapter does not have a mentor, please notify EWB right away so that your request can be added to this e-mail.

### 3.3.6) Constitution & Bylaws

Your chapter can contact EWB-USA for a basic constitution or bylaw templates, which you can use as an example.

Once you have completed your constitution and bylaws, send them and the names of chapter executives and other representatives to the EWB-USA National Organization at: [administrator@EWB-USA.org](mailto:administrator@EWB-USA.org).

### 3.3.7) Other Chapter Considerations:

1. You will want to keep detailed financial records. To do this you will need to:

- a. Have a treasurer
    - i. Have a treasurer plus the president & faculty member responsible for funds.
  - b. Set up a bank account through EWB or through your University
  - c. Provide a means of reimbursement for chapter expenses
  - d. Keep and file receipts
  - e. Provide receipts for charitable donations over \$250
  - f. Annual Reports of expenditures.
2. Determine Budgets:
    - a. How much will you need to operate and spend on projects?
    - b. Decide on possible places to obtain funds
    - c. You should be prepared to submit financial reports to EWB, etc.
  3. Prepare for chapter executive board turnover:
    - a. Making a smooth transition from leadership to leadership
    - b. Make plans for how to turn over all records, accounts, contacts and projects
  4. Communications with EWB-USA and external parties:
    - a. How to communicate with the media (See Section 7)
    - b. Authorized logo, trademark, publications
  5. Internal communications:
    - a. Determine how you will communicate with members from your chapter & other chapters
    - b. Develop a website: Determine what should it contain, and what it should not contain (advertising, etc.).
      - i. Make sure to send the website information to EWB-USA administrator so that we can post a link on our website.
  6. Student projects:
    - a. How will you find additional projects?
    - b. How will your chapter support senior projects?
    - c. How will you manage projects and the team?
    - d. How will you manage the risk of a project?
  7. Members going overseas:
    - a. There are three main issues: Safety, Security & Health
    - b. EWB-USA must be notified before plans are committed
  8. Membership:
    - a. Create a chapter membership list with data on interests, their major, and all contact information.
  9. Conducting research:
    - a. Who will be in charge?
    - b. Where will information be found? Is there a professional in the field that could help
  10. Finding partners
    - a. What are appropriate partners & inappropriate partners
    - b. Make sure to secure a letter of understanding for the partnership so that all relationships are clearly defined. Make sure there is a defined period of time for the partnership.
  11. Liability, Risk and Trust
    - a. How will operational risk be minimized?
    - b. What are the organizational risks?
    - c. Will volunteers be at risk?

- d. What insurance will be needed?
12. Fall EWB-USA Conference
- a. Who will attend conferences?

### 3.4 Creating a Sustainable Chapter

#### 3.4.1 Keep Members Motivated

1. Keep all members involved in activities
2. EWB will summarize and publish other chapters' activities, events, or accomplishments
  - a. Send the information to [administrator@EWB-USA.org](mailto:administrator@EWB-USA.org) so that it can be posted on the website or in the newsletter.
3. Set deadlines, goals, and rewards for degrees of accomplishments
4. Keep projects alive, and don't have too many students on one project.
  - a. If there are too many students on a project, they may not all be able to go on the implementation trip, or there may not be enough for each member to do.
  - b. Remember that many developing communities do not have the resources to accommodate a lot of visitors
5. Ensure that research or project opportunities are available
  - a. Get ideas from students, other EWB Chapters, the EWB-USA website, faculty advisors, or the national chapter coordinator.
  - b. Get ideas from professors at your school, distribute them to your members, and ensure that they are also communicated to the EWB-USA Chapter Coordinator and your website (if you have one).
  - c. Generate research opportunities: Identify professors who could provide project ideas and/or act as project mentors.
6. Make Sure that there are professors who are willing to act as supervisors
  - a. Having a strong faculty lead lends validity to the chapter.
7. Make sure students know about the research and project opportunities.
  - a. Post them on the website or send out a mass e-mail occasionally or when new projects come up.
8. Consider asking the professor of a design class to use an EWB-USA type project as the official class project
9. Meetings:
  - a. Hold regularly scheduled meetings that are prescheduled throughout the year. Ask for a volunteer to take minutes of each meeting and then publish those minutes thru e-mail and on your website.
10. Events:
  - a. Organize two to five educational events (guest speaker or workshops, etc.) per term. Some ideas for speakers are graduate students, former interns, development officials, EWB-USA Operations Committee, etc., ex-Peace corps volunteers.
11. Budget:
  - a. A budget helps the chapter to focus on its annual needs to operate effectively and participate in research and projects.
12. Create a sustainable board:
  - a. A EWB-USA chapter can have five executive members, (should include two who are not in their last year of school), and a professor who will act as an advisor.
13. Promote EWB within the University:
  - a. Several documents are available to you as you advertise your chapter around your campus and run your recruitment campaign among students, faculty, and staff. They include:
    - i. A two-page write-up about EWB-USA (English and Spanish versions)
    - ii. EWB-USA brochures (upon request)

- iii. A six minute long promotional DVD that talks about our work and many of the projects we have done in the past (upon request).
  - iv. A EWB-USA pdf file (on CD) of a poster you can economically create your own various sized posters. <http://EWB-USA.org/news-downloads.html>
  - v. The two-page write-up is also available from the “Downloads” section of the EWB-USA web site. The DVD and CD set can be sent to you by regular mail (first set free for EWB-USA members or new chapters; \$5 for additional sets and EWB-USA members; \$20 for non-members).
14. The EWB national conference
- a. Each year, EWB-USA holds a national conference. Conferences are open to current EWB members, prospective members, and non-EWB members. During the conference, participants from existing and prospective EWB-USA chapters and individuals are able to interact, exchange notes, and learn from each other. See the Funding, Development & Outreach section for more information.
  - b. Attendees also have the opportunity to interact with professionals and organizations that may be valuable for future networking.
15. Should you start losing direction talk to advisor, EWB liaison, or EWB-USA staff.

### 3.5 Documents:

1. *Starting a Student Chapter of EWB (#301)*: This form provides a quick overview of how to start a student chapter of EWB.
2. *Student Chapter Agreement (#302)*: This form is to be filled out by the prospective chapter when they want to become an official EWB chapter. The form is to be sent to the EWB-USA office, where it will be reviewed by the EWB-USA chapter coordinator and president. Once it is approved, a copy will be returned to the EWB chapter.
3. *Chapter Contact Information (#303)*: This is a spreadsheet of chapter contact information that should be sent out by September 15<sup>th</sup>, at the beginning of each school year.