USAID-funded Excellence in Higher Education for Liberian Development project (EHELD)

SUMMER START 2012

Manual - Returning Students

Produced by University of Michigan

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EHELD Summer Start 2012
Returning Students Curriculum

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Applications Lab

Theme: Agriculture and Engineering in the Rural Areas

Objective: At the end of the Summer Start program, students should be able to develop project ideas and proposals for funding. Students should be comfortable working with communities about their various technical needs and researching alternatives to address those needs. Students should be able to approach potential funding sources about their ideas and develop a budget for funding of their project ideas.

Description: Each student will be a part of a project. Each project team will consist of five members. Each team will have both engineering and agriculture students (some projects may have more or less from each area depending on the type of project), plus teams will have GIEU students. The first week, students will be able to rank the projects they would like to work on. Summer Start staff will put students in teams accordingly.

Students will each have access to a computer. Each computer will be networked together. Students will be able to research background to each project on those computers. The information the students have access to will assist in their design.

Students will create a proposal to submit to a funding source concerning their projects. These funding sources include such stakeholders as NGOs, community leaders, Universities, government funding agencies etc. The proposal students develop will include background on the project as well as an analysis of alternatives and chosen alternative. The students do not have to provide an actual design, but give a description of what the design will entail and an estimated timeline and budget. Further, students must give a detailed description of the need of the project.

The students will have to then design a prototype for the chosen alternative. This prototype will be used to convince the stakeholder of the worthiness of funding the project, as well as educate fellow students about the technology of the chosen alternative. A drawing on Google Sketchup of the prototype must be developed and any calculations that were made must be presented.

By the end of the second week of Summer Start, teams must have the design of the prototype developed and a list of materials needed provided to the Summer Start instructors. Instructors will approve the list of materials based on their discretion of the appropriateness. All of the materials must be easily attainable. Summer Start instructors will then purchase the supplies for the teams to build the prototype by the end of the final week. The list of materials is needed early in the program so the team members have the opportunity for any redesign that may be necessary.

Students will submit the proposals by the end of the fourth week and provide a presentation to the Summer Start community as well as any stakeholders in attendance. Throughout the four weeks, students will be working closely with the Summer Start instructors on all aspects of the prototype design and proposal development. Students will have daily access to computers and necessary software.

Projects:
- Aquaponics
- Drip irrigation
- Alternative energy
- Farm mechanization
- Water harvesting and purification

Deliverables

There will be two deliverables from each design project group: (i) the first is a proposal for funding for the project from a hypothetical funding source (e.g. a university), and (ii) the second is an educational prototype that exemplifies the basis of the proposed project. Details of each deliverable are described below.

- **Proposal for Funding** –
  Each team must develop a project funding proposal to a project stakeholder. Project stakeholder will be University of Liberia, Cuttington University, or an NGO. The proposal for the funding of this project must include the following sections:

- *Project description* – This section must contain a short overview about the project need and a quick description of the proposed solution.

- *Background* – This section will describe in detail the need for the proposed project. The background must include the need at the local level as well as give the national context for the need.

- *Analysis of alternatives* –
  ○ In this section, students must give a detailed description of all of the possible technological solutions to the project need.
  ○ Must include cost, ease of buying materials, ease of installation, community capacity to adopt technology, maintenance, and most importantly **performance.**

- *Chosen alternative* – Students must choose one of the alternatives that will be the basis for the project and describe why that alternative is chosen amongst the others. Students must describe the constraints that were most significant when making this choice.

- *Brief technical overview* – Students must make a brief technical overview of the project that is being proposed. The various components of the project must be described. This section must also include how the community that will be receiving the project will be trained.

- *Proposed budget* – An estimate of the cost of this project along with the necessary materials must be presented in this section.

- *Timeline* – An estimated timeline for the project, including training and prototype development, must be described in this section.

- **Educational Prototype –**
  Each team must also design and build a prototype of the design to educate fellow students and project stakeholders on the design concept. This prototype must include the following:

    - Technical design of educational prototype

    o Description of engineering and agriculture theory used in the design of the prototype and any calculations made

    - Google Sketchup drawing of design

Description of various projects

Hydroponics -
   Cuttington University currently harvests fish from nearby ponds on the property of the university. The fish are typically small tilapia fish. Usually the fish do not grow to a desirable size—only reach a few inches at most. Further, the fish are only harvested periodically without an actual harvesting plan. The fish are sometimes used in cafeteria food for the student population; however, the fish are mainly given to local residents for their consumption because there is not a consistent supply that can be used in the cafeteria. Ponds are currently under the supervision of the CU agriculture manager.
   The Summer Start hydroponics team should develop a plan for improving the fish ponds at Cuttington University. The ponds should have a management plan that will ensure optimal harvesting of fish in order to provide a consistent supply of tilapia for the Cuttington University cafeteria. Further, the ponds should be able to provide other sources of food beyond just tilapia. These other types of food can include such crops as a second type of fish, rice, or plants grown on rafts. Students must decide on the proposed solution, develop a prototype of the proposed solution to convince stakeholders and educate the impacted community, and write a proposal for funding from Cuttington University.

Drip irrigation -
   Cuttington University currently has land that is used to produce food for its cafeteria. Currently, in order to distribute water to the land, the university either depends on the rain or workers have to carry water from one of the well pumps on campus. However, water provided in this method is wasteful and not very dependable.
   The Summer Start drip irrigation team should develop a plan for providing water to the irrigation plot at Cuttington University that minimizes water use and increases dependability. The water source for the irrigation must provide a sufficient amount of water year round to the crops. Students must decide on the proposed solution, develop a prototype of the proposed solution to convince stakeholders and educate community, and write a proposal for funding from Cuttington University.

Alternative energy -
   Both the University of Liberia and Cuttington University depend on diesel-powered generators to provide electricity to the campus. Often times, generators break or fuel becomes low,

which may cause the university to be without current, or on a limited supply. Both the University of Liberia and Cuttington University are located in locations with plenty of land and resources to develop an alternative supply of energy to the campus.

The Summer Start alternative energy team should develop a plan for providing electricity to the universities using a separate, more dependable source of energy. While this second source of energy may not provide enough for the whole university's need, it must at least supply a significant enough amount of sustained and dependable energy that it will be worth the funding. Possible alternatives include biofuels, or solar, wind, or hydropower. Students must decide on the proposed solution, develop a prototype of the proposed solution to convince stakeholders and educate community, and write a proposal for funding from Cuttington University or the University of Liberia.

Farm mechanization -

Cuttington University is currently growing different types of crops for food production. These crops include rice, maize, eggplant, and pepper. The town is not only growing the food for consumption, but also to sell for profit in order to build community based projects. In order to make their crops more competitive in the marketplace, the community would like to add value to the crops they are developing.

The Summer Start farm mechanization team should develop a plan for growing new crops or adding value to existing crops that will increase the revenue generated by Cuttington University. Further, the idea of using machines to increase production should be explored. Students must decide on the proposed solution, develop a prototype of the proposed solution to convince stakeholders and educate community, and write a proposal for funding from Cuttington University or the University of Liberia.

Water harvesting and purification –

A high school in Gbarnga would like to develop a drinking water business to create revenue for their PTA and school fees. There is not an appropriate source for drinking water and bottled water is expensive. There is a demand for drinking water that people fulfill by boiling their water of buying bottled water.

The school students know they can get rainwater but need an appropriate technology to purify the water for human consumption. The Sumer Start team should develop a proposal for a rainwater harvesting technology and a purification system. The revenue will be provided to the PTA and the students working on the project. The proposal will be submitted to the UNDP as a small grants proposal for climate adaptation technology.

Life Skills

Week 1 – Team Building and Diversity

Week 2 – Community Participatory Approach

Week 3 – Job Search

Week 4 – Research Skills

Stereotypes & Bias

Icebreaker Activity: 'Candy Bag'

People often use labels or categories to describe others and these labels can be based on such characteristics as clothing, looks, the way a person talks, or the groups to which he or she belongs. While categorizing things or people is a natural human inclination, people often make assumptions about groups of people they don't even know.

Brainstorm categories that are used at school to group people:
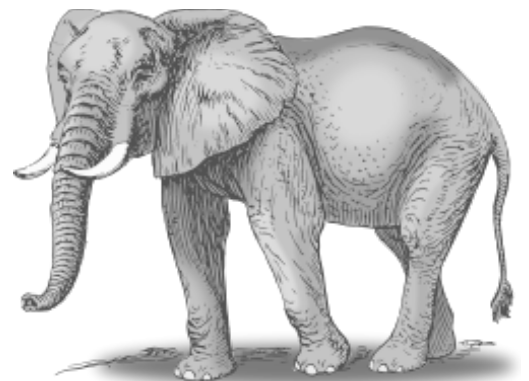

Do assumptions apply to everyone in a group?

_____

Do most people hold the same assumptions about a group? Why or why not?

_____

_____

_____

Do assumptions tell us anything definite about a cauterized individual?

_____

_____

_____

How do assumptions affect your behavior toward others?

_____

_____

_____

Now define the word "stereotype"

_____

_____

When we make assumptions about an entire group of people, those assumptions are referred to as stereotypes. When assumptions and stereotypes influence our attitudes, we may find that making a fair judgment about someone or something is difficult. This influence on judgment is called a "bias".

Experiencing Bias
Look at the pieces of paper around the room about assumptions and stereotypes in school and society and spend 15-20 minutes writing about your own personal experience with biased behavior. You do not need to use actual names if you don't wish to. You can also share an experience in which you witnessed bias.

Consider the following questions before you begin to write:
- How did you know that you were being unfairly judged?
- What words or actions were directed at you because of assumptions or stereotypes?
- Why do you think those assumptions were made about you?
- How did the experience make you feel?
- How do you think you should have been treated in that situation?

_____

_____

Diversity & Discrimination

Divide into groups of three or four and select three Prejudice Situations, then fill in the boxes below, identifying the act involved and how it harms the people in the situation. When you have finished, begin answering the discussion questions.

Reference: Dealing with Stereotyping, Prejudice, Discrimination, and Scapegoating by William J. Kreidler, Educators for Social Responsibility, http://www.esrnational.org/otc/lesson_container/ESR_Stereotypes.pdf. Copyright 1994-2012 Educators for Social Responsibility, Allyn and Bacon. All rights reserved.

Conflict Resolution

Definitions

Conflict is "a prolonged battle; a struggle; a clash." It is a controversy, disagreement, opposition, or collision. In psychology, it is the "opposition or simultaneous functioning of mutually exclusive impulses, desires, or tendencies." Conflict is synonymous to discord. 1 One of the dictionary definitions of resolution is "the action or process of separating or reducing something into its constituent parts." In medicine, it is "the subsiding or termination of an abnormal condition, as of a fever or inflammation." It can also be "an explanation, as of a problem or puzzle; a solution." 2 Good conflict resolution strategies help defuse stress by seeing the problem in a different light. Many stress busters work because they alter thinking processes. 3 Looking at others such as Ghandi and Abraham Lincoln that have successfully handled conflict is also helpful.

Quotes

"Have a dialogue between the two opposing parts and you will find that they always start out fighting each other until we come to an appreciation of difference. … a oneness and integration of the two opposing forces. Then the civil war is finished, and your energies are ready for your struggle with the world." – Frederick Salomon Perls

"I'm not a combative person. My long experience has taught me to resolve conflict by raising the issues before I or others burn their boats." – Alistair Grant

"When you're finally up on the moon, looking back at the earth, all these differences and nationalistic traits are pretty well going to blend and you're going to get a concept that maybe this is really one world and why … can't we learn to live together like decent people?" – Borman Frank

"Yes, we are all different. Different customs, different foods, different mannerisms, different languages, but not so different that we cannot get along with one another. If we will disagree without being disagreeable." – J. Martin Kohe

"Every kind of peaceful cooperation among men is primarily based on mutual trust and only secondarily on institutions such as courts of justice and police." – Albert Einstein

Identify Strategies for Prejudice-related Conflicts
Divide into groups of three or four and read the Strategies for *Interrupting Prejudice Case Studies.* Choose two different case studies that tell of how someone dealt with or "interrupted" prejudice in a conflict. Some of the people were effective and some were not. you as a group will have about five minutes to read the case, then discuss the questions on the handout and decide what you think.

Resolution Vocabulary

COMMUNICATE Some conflicts start because people misunderstand each other; talking things out and explaining might take care of it.

NEGOTIATE When two or more people decide to work out a conflict themselves.

MEDIATE A third party comes in and helps the two sides work out a compromise themselves.

ARBITRATE A third party comes in and actually makes a ruling, or decision, that both sides must accept.

LITIGATE Resolving a conflict by going to court; the JUDGE acts as the arbitrator.

LEGISLATE To make something the law or rule; some conflicts cause people to try to change laws or rules so the problem won't happen again.

Identify the Resolution

Gender and Development

Have you ever used the term "term" before coming to this workshop? What does it mean?

What is the difference between the terms sex and gender.

What are some examples of gender roles, which you have seen men have in one place (or instance) and women in another?

The Implications of Considering Gender in Development

The Problem: Changing Gender Roles and Transforming Economies

Job Search Guide

Reference: Job Search Guide 2011, Pages 7-24, 67-69, 89-97, http://www.careercentre.dtwd.wa.gov.au/toolsandresources/Pages/Jobsearchguide.aspx. Copyright 1997-2012 Government of Western Australia Department of Training and Workforce Development, All rights reserved.

From the reading above, discuss:
1. Getting started
2. Recognize your Skills & Abilities
3. Be Open to New Possibilities
4. The Changing World of Work
5. Be Prepared and Organized
6. Ten Step Job Search plan
7. Personal Presentation
8. Applying for Work
9. Addressing the Selection Criteria

Preparing Your Resume

Reference: Job Search Help, http://www.jamidland.com.au/Job%20Search%20Help.htm. Copyright 2012, Eastern Region Employment & Community Services Inc. All rights reserved.

Sample Resumes

28 Ponderosa Place, Floreat WA 6014.

Phone: 9177 2314 email: kimlee@hotmail.com

SKILLS

- Excellent communication skills
- Ability to work co-operatively with others
- Efficient time management and organisational skills
- Familiarity with small business operations in the hospitality/travel industries
- Competent with computers and the ability to use MS Word, Excel and Access.

WORK HISTORY

2004 – current   Burger World, Swanbourne
Customer Service
- Prepare and package food
- Customer service
- Unload deliveries

2005   Acquire Hotel, Perth. (Work Experience Placement)
Customer Service.
- Housekeeping
- Front desk
- Marketing

2003   STAR travel, Cannington (Work Experience Placement)
- Receptionist
- Customer contact
- Photocopy and prepare travel documents
- Preparation of correspondence

2000 – 2005   Mrs R Smythe, Floreat
Babysitter.

EDUCATION

2001 - 2005   Fairmark Senior High School
Secondary Education Certificate
- Vocational English
- Mathematics in Practice
- Work Studies
- Computer Fundamentals
- Food Production
- Aspects of the Tourism Industry

Page 1

OTHER QUALIFICATIONS

2004   HBC Vocational Institute - Hospitality
- Modules completed:
- Present food
- Receive and store stocks
- Clean and maintain premises
- Prepare sandwiches
- Process financial transactions
- Communicate on the telephone

AWARDS

Fairmark Senior High School Academic Distinction, 2005.
Captain Boomers Netball Team, 2005.
Red Cross Community Service Award, 2005.

INTERESTS

Photography
Cooking
Netball

REFEREES

Mr Joe Thomas,
Manager,
Burger World, Swanbourne,
5408 Railway Parade, Swanbourne 6010.
Phone: 9984 0009   Mobile: 04931 66058

Mrs Ingrid Bettenay,
Head of Department, Hospitality and Tourism,
Fairmark Senior High School,
Fairmark WA 6541.
Phone: 9946 8220 (school).

Mrs Rose Smythe,
18 Marple Street,
Floreat WA 6014.
Phone: 9987 2230   email: ros@wantree.com.au

Gwen Chilcott
Unit 4, 88 Marmion Avenue, Hillarys 6025
Phone 08 9401 5432
Email: gwench@iinet.net.au

CAREER SUMMARY

Highly skilled in word processing with a typing speed of 52 wpm, I have an excellent grasp of French and English and a sound understanding of office protocols. I bring to the workforce extensive office administration experience and professionalism.

DEMONSTRATED AREAS OF COMPETENCE

- Excellent written and verbal communication skills
- Highly skilled in word processing. 52 wpm 100 % accuracy
- Sound knowledge of office protocols
- Well developed clerical skills
- High level of computer skills MS Word, E-mail, MYOB, MS Publisher and MS Excel
- Skilled in financial management
- High level of organisation skills

WORK HISTORY AND EXPERIENCE

Relevant Experiences

Office Manager/Bookkeeper
Chilcott's Hardware

Duties:
- Undertook banking, credit control and payroll functions
- Supervised and coordinated activities of staff
- Prepared annual estimates of expenditure
- Maintained budgetary costs

Clerical Officer
Greenfields Insurance Office

Duties:
- Wrote business letters, reports and memorandums
- Answered telephone and counter enquiries
- Filed office documents

President/Treasurer/Fund Raiser

Ocean Reef High School Parents & Citizens Association

Duties:
- Managed Association's finances
- Chaired and facilitated meetings
- Managed projects

Other Experiences

Management Committee Member

Banksia Women's Refuge

Duties:
- Assisted with conflict resolution
- Counselled refuge's clients

Women's Refuge Volunteer

Banksia Women's Refuge

Duties:
- Assisted in crisis situations
- Cared for distraught women and children
- Managed the funds as Treasurer
- Managed the Op Shop

OTHER SKILLS AND ABILITIES

- "C" Class driver's licence
- Fluent in French language
- Able to solve problems and think creatively
- Confident
- Polite telephone manners
- Experienced in handling payments and wages

REFEREES

Ms Wilma Clarke
Coordinator
Banksia Women's Refuge
Tel: (H) 08 9308 9988

Mr John Watson
Principal
Ocean Reef Senior High School
Tel: (W) 08 9907 0222

Resume : Steven John Fogarty

18 Karri Rise, Forest Hollow WA 6258

Telephone 08 1776 2354 Mobile 0485 555444

Career Summary & Profile

Gaining extensive experience in many facets of the softwoods industry, I have worked as a mill hand and progressed my way to management. In conjunction with this background, I have gained the wide range of skills and knowledge needed to lead and manage effective teams in today's new work environments.

With excellent skills in new computer technology, the management of people and other resources, I am adaptable and experienced in managing change. A person who enjoys being around people and providing appropriate leadership, I have developed sound resource management practices and a practical approach to problem solving. I am reliable and clear thinking.

I enjoy the challenges of doing business and of managing personnel, and am keen to utilise and further develop my human resource management skills in the corporate environment.

Demonstrated Skills and Abilities

- Excellent leadership and supervisory skills
- Good team player
- Sound financial management skills
- Well-developed written and verbal communication skills
- Ability to train and motivate staff
- Adaptable to new technology
- Excellent problem solving skills
- Friendly & approachable
- Flexible and forward thinking
- Excellent supervisory skills

Industry Related Training

"Principles of Effective Management", TAFE course 2004.
"Occupational Safety & Health Certificate III", TAFE course 2003.
Supervisor Training Program, Timber Workforce Training Consultants Australia, 2003.
Fire Control course, Softwood Timber Producers Industry Association (STPIA), July 2002.
"Plantation Pines Beyond 2000" industry training program, STPIA, August 2001.
Forklift Operators Certificate.

Recent Employment

May 2000 to Sept 2005
Position: **Production Manager**, Sirex Pine Mill, South Quenda 6286

- **Management of production personnel.** Organised and maintained the workforce of 25 staff across all aspects of timber production in the mill, through the co-ordination and supervision of the 4 Work Section Supervisors.
  Accomplishments: In 2003 I instigated a highly successful new reporting system that enabled the workers to feed back information and suggestions to management in order to create a safer, more efficient and cost-effective working environment. The success of this program resulted in significantly reduced turnover of staff, lower accident rate, and reduced loss of production time due to mechanical failure.

- **Management of sawing operations.** Oversaw the production of high quality softwoods to required grades and dimensions in order to meet customer orders and production deadlines. With an annual turnover of $3.5 million, this required maximising of production with minimal wastage and lost time due to machinery breakdown and staff changes.
  Accomplishments: The effectiveness of the new reporting system carried through to the production, by increasing timber yield from the saw logs by 9.5% in the first year. The smooth running of the mill sawing operations has been greatly enhanced by the system that I introduced, resulting in greater efficiencies in production.

Previous Employment History.

July 1997 to May 2000
Position: **Production Sub-manager**, Sirex Pine Mill, (formerly PJ Borer Pine Millers Pty Ltd)

April 1991 to July 1997
Position: **Foreman**, PJ Borer Pine Millers Pty Ltd, South Quenda

May 1987 to April 1991
Position: **Mill hand**, Malimumbo Pine Mill, Malimumbo

Community Involvement

Immediate Past-President, Malimumbo Lions Club.
Coach Malimumbo Boomers under 12's junior football team.
Past-President South Quenda Cricket Association.
Active member of Forest Hollow and Districts Chamber of Commerce.

Referees

Mr Richard Stevens
Chief Executive Officer, Yellowood Pty Ltd, trading as Sirex Pine Mill,
South Quenda 6286.
08 1771 2823 (direct line)

Mr John Smith
General Manager, Softwood Timber Producers Industry Association
5098 Adelaide Terrace, Perth 6000.
08 1776 2623

Mr Fred Mortimer
President, Forest Hollow and Districts Chamber of Commerce,
Forest Hollow WA 6285
08 1777 3423

Write Your Own Resume

Education:

Employment:

Skills:

Hobbies/Activities:

Referees:

Addressing the Selection Criteria

Addressing the Selection Criteria: Claire Thomas.

Essential:

1. Good written and verbal communication skills.

My written communication skills have been demonstrated by:

o   Writing high school assignments in various subjects to specified requirements and time deadlines as a student at Monkey Bay Senior High School. I have received consistently high grades in my written work at school.

o   Writing project reports on various group projects as a student.

o   Drafting letters in response to client enquiries during my part-time job as a receptionist with B J Hoskins Solicitor.

o   Getting an A grade in Office Communication in Year 12.

My verbal communication skills have been demonstrated by:

o   Leading Monkey Bay Senior High School in the Interstate School Debating Competition.

o   Answering the telephone and welcoming clients as a receptionist during my employment with B J Hoskins Solicitors.

o   Taking orders from customers as a Customer Service Crew at Burger Bonanza.

o   Getting an A grade in English Literature and Japanese in Year 12.

2. Demonstrated customer service skills.

During the past 2 years I have worked in positions where my main responsibility involved using my well-developed customer service skills.

o   While working as a Customer Service Crew at Burger Bonanza, on several occasions I have been confronted by irate customers with complaints about the food or the delay in the queues during very busy periods. These encounters have required me to listen patiently to the complaint, to speak gently to the customer despite their raised voice, and to find a way of satisfying the customer. My supervisor on several occasions has congratulated me on how well I have handled these difficult customers.

o   As a Front Office Receptionist with B J Hoskins Solicitors, I was often the first point of contact for clients who came into the office. On one occasion an elderly woman came into the office very angry about a letter that she had received from our solicitors' office. By careful handling, I was able to settle her down and explain to her briefly the purpose of the letter. Soon I was able to make her a cup of tea and got her talking about other matters. By the time Mr Hoskins was able to call her into his office, she was no longer angry. He later thanked me for the sensitive way that I handled the woman.

While holding these positions, I demonstrated excellence in customer service by:

o   Meeting customers in a pleasant manner.

o   Making sure that I had taken orders accurately.

o   Processing orders promptly and handing them over to the appropriate customer.

o   Conveying messages to staff members promptly and accurately.

3. Ability to prioritize work.

I have demonstrated the ability to prioritize work by:
- Working part-time while successfully completing Year 11 and 12 studies.
- Efficiently serving customers as a Customer Service Crew at Burger Bonanza and also carrying out other duties such as assisting in food preparation and housekeeping.
- Typing letters in order of priority, serving clients and answering telephone calls during my work as a receptionist.
- Prioritizing my workload as a student to effectively manage my time for studies.

4. Ability to work in a team environment.
- My ability to work in a team environment has been demonstrated by:
- Representing Monkey Bay Senior High School in the Inter School Netball Competition.
- Working as part of team to provide a quality food service at Burger Bonanza where I was responsible for taking orders, serving customers, food preparation and house keeping.
- Organizing branch meetings for B J Hoskins Solicitors. While organizing these branch meetings I had to work with staff from various branches of B J Hoskins Solicitors.
- Working on various group projects as a Year 12 student. As part of these student groups I took part in planning group activities, carrying out individual work, reporting to the group leader and presenting information in the classroom

Desirable:
1. Experience in using Word Processing packages such as MS Word.

My ability to use Word Processing packages has been demonstrated by:
- Using MS Word and Corel WordPerfect to prepare high school assignments.
- Using MS Word to prepare class hand outs during group presentations as a high school student at Monkey Bay Senior High School, as well as to prepare flyers and brochures for the 97 Student Expo.
- Using MS Word to draft, edit format and print letters during my work as a receptionist with B Hoskins Solicitors.
- While using Word I have utilized advanced features such as merging documents, using graphs and tables, auto formatting and making use of templates. A course in Office Communication has supplemented my skills in this area.

2. Experience working in the Local Government sector.

While I do not have previous experience working in the local government sector, I believe I have the necessary skills to be able to work effectively in this area. I am quick to learn new skills and systems, am adaptable, and am able to relate easily with a wide range of people.

I would look forward to the challenges and opportunities to be found in local government.

Sample Cover Letters

Sample Job Postings

Background on Occupations

PD-GOV Reference: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012, Architecture and Engineering Occupations, http://www.bls.gov/ooh/Architecture-and-Engineering/home.htm.

PD-GOV Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012, Farming, Fishing, and Forestry Occupations, http://www.bls.gov/ooh/farming-fishing-and-forestry/home.htm.

Your Application Letter

Job posting you selected: _____

_____

_____

_____

_____

_____

Dear

_____

_____

_____

_____

Best Regards,

Read the guide above, focusing on:
- Using the Telephone and Planning Your Call
- Filling Out a Job Application
- Looking for job opportunities that haven't been advertised… the hidden job market.
- Surviving the Job Interview
- At the Interview
- Staying Positive
- Possible Reasons for Missing Out on a Job
- Other ways to help you find work

Research Skills

 "Research" is a strange word. One might think that its meaning is obvious from the prefix re ("again") and the root search ("to look for"). And in a way, that definition is correct: when you do research, you investigate the facts not just in one place but in many. You need to look and look again.

This is why knowing where to find reliable information is so important when writing research papers. You have to discover the facts before you can interpret them. This week, you will learn about finding information on the Internet and in the library. You will also learn that every source needs a critical eye to determine its worth. Here is an overview of the week:

Reference: Research Paper Chase. http://www.infoplease.com/cig/writing-well/paper-chase.html. Excerpted from *The Complete Idiot's Guide to Writing Well*. Copyright 2000 by Laurie Rozakis, Ph.D. All rights reserved.

Computer Lab

Objectives: To teach students basic research skills on the computer and improve communication and presentation skills by means of computer office programs.

Description: The computer lab for the second year students will allow students to combine all of the computer skills they have developed over the past year and work to complete a project proposal for funding. Further, students will learn how to carry out research on information stored on a local network that will assist with the applications lab.

Important concepts: Internet, intranet, research, plagiarism, works cited

Week 1 - Computer review
* Writer - Students will have 1 hour to review Writer. They will practice opening the program and typing an entry given to them.
* Calc - Students will have 2 hours to review Calc. They will practice opening the program, typing with different fonts, and carrying out different calculations. Finally, they will be able to create graphs.
* Google Sketchup - Students will be able to spend a couple hours reviewing Sketchup.

Week 2 -
Research Skills - The second week will be devoted to writing research reports. Students will be able to search for different information through the intranet. Students will learn how to use the information for writing a report and for the basis of a design.
* How to search the computer/intranet for information
* How to write a report and funding proposal based on found information. This lesson will be taught in coordination with the English teacher.

Week 3 -
Reports (Writer) - Students will have all week to write their reports. There will be one lesson where students will learn how to cite the information from other sources that will be used in the report.
* How to create a works cited - Students will develop a works cited for their research reports. Further, plagiarism and how to avoid it will be discussed.

Week 4 -
Presentations (Impress)
* Impress - Students will have a review on how to use Impress. Students will have the rest of the week to finish reports and create a presentation on Impress.

Using the Internet for Research

Documentation & Citation

How to Write a Research Paper

- Establish your topic.
- Look for sources of information.
- Read your sources and take notes.
- Organize your ideas.
- Write a first draft.
- Use footnotes or endnotes to document sources.
- Write a bibliography.
- Revise the first draft.
- Proofread the final draft.

Sustainable Agriculture Curriculum

Session 1. Introduction (main themes, expectations and objectives)

Objective: Students will be introduced to the course, with particular emphasis on expectations and the term project. Students will also complete an introduction activity, both to the course and to one another.

The term project in this course is integrated with the hands-on laboratory. The term project requires teams of students, which are the same teams in hands-on, to design a sustainable farming system to meet the goals of each of the hands-on projects. The presentations will be oral presentations, and will be completed during the 17th and 18th course session. An outline of the presentation should be prepared for the 16th session, and students should anticipate presenting this outline to the instructor during that session in order to gain feedback prior to the presentations.

Activity: Introductions

Students will pair up, and ask one another the following questions:

1. What is your name, and what year in school are you?

2. Why did you choose to major in the agricultural field?

3. What is most interesting to you about agriculture, and why?

4. What is one aspect of agriculture that you hope to learn more about in this course?

5. What agricultural experiences have you had in the past, and what part of agriculture would you like to work with in the future?

After the students have had time to discuss these questions, each pair of students should introduce their partners to the class.

Session 2. Historical Perspective of Agriculture, Current Trends and Directions

Objective: Students should gain an understanding of the historical foundations of agriculture, specifically in the recent era, and should be able to understand the goals and objectives of sustainable agriculture, particularly in comparison to traditional agriculture.

Key Points:
- Historical perspectives of agriculture
- Concept of an agricultural system
- Recent trends in agriculture (Green Revolution, specifically the impacts and effects of increased production on the natural environment, human health and economic system)
- Rise of agroecology, sustainable agriculture
- Emphasis on goals of sustainable agriculture: (1) efficient use of local resources and reduction of external inputs; (2) rescue and re-evaluation of indigenous agricultural systems; (3) increase in crop and animal diversity; (4) improvement of the natural resource base
- Types of sustainable agricultural systems

References/Readings:
- Diamond, J. (2002) Evolution, consequences and future of plant and animal domestication. Nature, 418:700-707.
  http://www.nature.com/nature/journal/v418/n6898/full/nature01019.html.
- Sullivan, P. (2003). Applying the Principles of Sustainable Farming. Appropriate Technology Transfer for Rural Areas, National Sustainable Agriculture Information Center (USDA). 1-16.
  https://attra.ncat.org/attra-pub/download.php?id=295.

Discussion:
- What are the three pillars of sustainability?
- What does agriculture look like now - in Liberia? Around the world?
- What does agroecology, sustainable agriculture look like?
- Where are we going, and why? Should we move toward a more sustainable system of agriculture?
- What are problems faced by farmers now? How can sustainable agriculture play a role in overcoming those problems?

Activity: Sustainability stool - What sustainability means to you!

As you read in the Sullivan article, sustainability must emphasize three pillars of sustainability; economic, environmental and societal goals of sustainability. These three components of sustainability are critical to the success of sustainable agriculture. Students should break into groups of 2-3, and create a stool of sustainability drawing. The group should come up with at least 4-5 different aspects or ways of agricultural sustainability for each of the stools legs (pillars). What values, practices and ideas must agriculture encompass to become sustainable in each one of these categories? Without each leg of the stool, sustainable agriculture cannot be supported (i.e., cannot stand on just two legs).

Please spend 5-10 minutes to discuss the aspects critical to sustainable agriculture within the context of economic, environmental and society. Please be prepared to give a brief description to the other teams of what your sustainable stool represents as being important to creating a system of sustainable agriculture. Please think outside of the box; what should sustainability encompass?

Session 3. Overarching Theme: Integrated Farming System and Sustainable Agriculture

Objective: Students should gain a general understanding of the components of sustainable farming systems through analysis of the case studies. The purpose of this session should be to provide an overview of the components of sustainable agriculture, which have been identified by the students using discussion of the case studies. These themes should be demonstrated as the key foundations of this course.

Key Points:
- Principles of sustainability
- Characteristics of sustainable agriculture, degrees of sustainability
- Applying sustainability through examination of applied case studies of sustainable agriculture and integrated farming

References/Readings:
- Case Study #1: Monfort Boys' Town, http://www.thefreelibrary.com/Eco-farming+in+Fiji.-a020816521.
- Case Study #2: Paris, T.R. (2002). Crop-animal systems in Asia: socio-economic benefits and impacts on rural livelihoods. Agricultural Systems, 71: 147-168. http://dx.doi.org/10.1016/S0308-521X(01)00041-5.

Discussion:
- What does Sullivan identify as the "Principles of Sustainability"?
- What is each of the case studies regarding; what are the main ideas?
- What makes each case study "sustainable agriculture" based on the Sullivan article?
- Are there areas where improvements could be made to the case study?
- Do the case studies take sustainability further than Sullivan - in what ways?
- How could the aspects of sustainability in these case studies be applied in Liberian agriculture?

Session 4. Water (Hydrological Cycle, Irrigation, Retention/Evapotranspiration)

Objective: Students should gain a deeper understanding of the role of the hydrological cycle in maintaining a sustainable agricultural system. In addition to the focus on the hydrological system as a whole, methodologies in different approaches to irrigation will be presented, and students will develop insight into available and appropriate irrigation techniques.

Key Points:
- Review: Hydrological Cycle, specific concentration on the system via inputs (precipitation, irrigation, run on) and outputs (evaporation, transpiration, runoff)
- Irrigation, Best Management Practices (BMP)
- Focus on drip irrigation as a model system of sustainable irrigation (system design, advantages, disadvantages)
- Methods in reducing water loss to evaporation (mulch, residues)
- Methods in increasing soil water capacity (increasing volume of soil)

References/Reading:
- Mofoke, A.L.E., et al., (2006). Yield of tomato grown under continuous-flow drip irrigation in Bauchi state of Nigeria. Agricultural Water Management. 84: p 166-172. http://dx.doi.org/10.1016/j.agwat.2006.02.001.

Discussion:
- What was the paper about; what is the topic of this paper?
- Why did the authors complete the experiment, and what were the goals of the experiment?
- Describe the drip-irrigation system designed in this paper. What were the key components?
- What were the results of this experiment?
- Do the results of the paper support the conclusions of the paper?
- How might you apply the methods of this paper on farms or particular crops in Liberia? What benefits would result from using this method? What disadvantages would result from using this method?

Session 5. Soil Characterization, Fertility and Analysis

Objective: Students will gain an understanding of the basic factors contributing to soil fertility, particularly the delineation between non-anthropogenic factors and anthropogenic factors. In this context students will gain an understanding of the characterization of soil quality through a suite of soil and plant testing strategies in order to determine an effective sustainable soil management strategy. Students will complete a hands-on soil testing activity.

Key Points:
- Non-anthropogenic and anthropogenic factors contributing to soil fertility
- Characterization of physical, chemical, and biological aspects of soil quality
- Soil testing techniques (basic soil testing practices, nitrogen soil tests, phosphorus soil tests)
- Plant testing techniques (basic plant testing practices, DRIS approach, total nutrient accumulation, nutrient use efficiency, chlorophyll monitoring, stem nitrogen monitoring)

References/Reading:
- Adepetu, J.A., Nabhan, H., Osinubi, A. (eds.), (1996). Simple Soil, Water, and Plant Testing Techniques for Soil Resource Management. FAO training course proceedings. ftp://ftp.fao.org/agl/agll/docs/misc28.pdf.
  - "Soil sampling and sample preparation," pages 31-37
  - "Overview of production constraints: physical, chemical and nutrient dynamics," pages 105-106
  - "Land degradation and food security," pages 111-115
  - "Soil conversation and water management," pages 117-123

Demonstration and Activity: Soil Fertility and Moisture

The instructor will demonstrate the process of choosing appropriate sampling locations on a landscape, extraction and analysis procedures using the supplied kit for the soil testing of pH, N, P, and K. The instructor will also demonstrate testing soil moisture content using a soil moisture meter. You should be prepared to participate in this procedure, and understand the chemical and biological attributes of the tests. The readings assigned for this session will be valuable in determining sampling procedures, mass balance and budgeting, and limited interpretation.

Using the reading, please design a sampling plan that identifies the variation in the landscape and captures that variation in sample. Please write a brief paragraph describing your methodology in choosing sampling locations. Why did you choose to sample where you did? Are the sampling locations representatives of the larger field? Why is this important? Sketch a small diagram of the sampling sites such as the one noted in the readings. Once you have sampled the soil, record the nutrient testing procedures and results in a notebook. Maintaining appropriate records of sampling procedures and locations is a valuable tool because it allows you to resample and understand trends across the landscape. Understanding these trends is critical in choosing effective management strategies regarding the nutrient levels in soils.

Soil Sampling Methodology:

Description –

Drawing of Sampling –

Nutrient and Moisture Recording:

Sample #	Site Description	Nitrogen	Phosphorus	Potassium	Moisture	Comments

Discussion of Results:

What do the measurements of nutrients and moisture indicate? Would crops be able to grow in this environment? What management strategies may be necessary to maintain fertility in this soil?

Session 6. Sustainable Soil Management Strategies

Objective: Students will gain the ability to develop and implement basic soil techniques and soil management practices that supply appropriate amounts of all essential plant nutrients at optimum times, maintain adequate and healthy soil conditions for the production of crops, and provide economically viable production strategies.

Key Points:
- Crop rotation
- Cover crop management
- Tillage practices, impacts on soil organic matter
- Management of soil macro- and micro- organisms
- Minimizing nutrient losses (runoff, erosion, fertilizer management, leaching losses, gaseous losses)

Session 7. Polyculture Crop Systems

Objective: Students will gain an understanding of what polyculture cropping systems are, and will be able to understand the advantages of implementing polyculture systems. These advantages will be reinforced through discussion of a reading.

Key Points:
- Definitions of polyculture cropping systems
- Advantages and disadvantages of implementing polyculture cropping systems (crop yield, yield stability, resource use efficiency, pests, weeds, pathogens, economic and management)
- Agrobiodiversity

References/Reading:
- Thrupp, L.A. (2000). Linking agricultural biodiversity and food security: the valuable role of agrobiodiversity for sustainable agriculture. International Affairs, 76.2: 265-28.1. http://users.unimi.it/agroecol/pdf/coop_int/bocchi/linking_agricultural_biodiversity.pdf.

Discussion:
- What is agricultural biodiversity (agrobiodiversity)?
- Why is agrobiodiversity important (i.e., what types of biological resources are encompassed by agrobiodiversity, what are the benefits of agrobiodiversity)?
- What are agricultural systems and methods that promote agrobiodiversity?
- What are landraces, and why are they valuable?
- What suggestions does the author offer to preserve agrobiodiversity? Could any of these be done in Liberia?

Session 8. Sustainable Crop Systems Management

Objective: Students will gain an understanding that crop production is influenced primarily by environmental factors and management factors. Students will learn to identify factors of environment, such as climate, as well as factors of management, such as crop decisions and cultural practices. Particular emphasis will be placed on effectively choosing crops well-adapted to the climate, and implementing management techniques, such as rotation and tillage methods. A demonstration will be used to provide students with an applied understanding.

Key Points:
- Crop Production = Environmental Decisions + Management Decisions
- Environmental decisions must account for climactic conditions, particularly temperature, light, and water
- Management decisions involve two related categories of factors: (1) crop and (2) cultural practices
- Crops decisions must account for a manager's choice of crops, variety of crop choice, and identification of adaptations the crop variety to stresses in the system
- Cultural practices must account for management strategies such as planting date, row spacing/plant density, residue and tillage routine, rotations/intercropping/crop sequences, irrigation and harvesting

Demonstration and Activity: Leaf Area Index

The leaf area index is an indicator of the photosynthetic primary production of a crop, and can be used as a reference for determining the effects of water and transpiration on a crop through its photosynthetic output. This short activity will demonstrate the procedure and use of LAI in the field. LAI is the ratio of the upper surface of the leaves of the vegetation divided by the area of the ground covered by the plant. Because leaves are sometimes stacked, the LAI may be greater than one. The greater the LAI is, the greater the photosynthetic capabilities of the plant.

Procedure:
1. Measure in centimeters a small section of ground where the plants that you would like to calculate LAI for are growing. The smaller the area, the less leaves you will have to measure (i.e., choose a small area for this exercise).
2. Strip all of the leaves of the plants in the area that you have measured.
3. Trace all of the leaves onto the graph paper that is provided to you.
4. Calculate the surface area of all of the leaves by adding the areas of the squares inside of the tracing lines of the leaves. Convert to centimeters. Because the leaves are irregularly shaped, squares may be intersected; estimate the LAI to the best of your ability.
5. Divide the total leaf surface area by the area of the ground from where the leaves are collected. The greater the LAI, the greater the photosynthetic output of the crop.

This technique can be used as a proxy for various crops; utilize the knowledge that you gained regarding soil sampling to design a sampling pattern that provides a picture of the entire landscape. Choose samples that are representative of the system, and sample a few as representations of the greater crop photosynthetic output.

Session 9. Sustainable Pest Management in Crop Systems

Objective: Students will gain the ability to identify what causes pests to become prevalent and problematic in the field, and will be introduced to the objectives and processes of integrated pest management as a pest mitigation and response tool.

Key Points:
- Identification of what causes pests to become prevalent in field: (1) when does the pest occur? (2) how does the pest emerge? (3) why does the pest prefer this crop, timing?
- Definition of Integrated Pest Management (IPM)
- Objectives of IPM, specific emphasis on how IPM is different than conventional pest management strategies
- IPM practices that mitigate pests in the field; specifically without the use or with limited use of high intensity chemical pesticides

References/Readings:
- Integrated Pest Management (IPM). Appropriate Technology Transfer for Rural Areas, National Sustainable Agriculture Information Center (USDA). Pages 1-17. http://www.clemson.edu/sustainableag/IP049_biointensive_ipm.pdf.

Discussion:
- What three questions should a producer ask themselves before implementing IPM strategies?
- What are characteristics of biointensive IPM versus conventional IPM?
- What are some benefits to biointensive IPM?
- When planning a biointensive IPM strategy, what things must a manager consider?
- What are proactive approaches to IPM? What are cultural strategies? Are cultural strategies proactive or reactive? Why?
- How can cropping structure be used as an IPM strategy?
- What is biological control? What mechanical and physical techniques can be used?
- What is the economic injury level, and how does it relate to IPM?

Session 10. Sustainable Weed Management in Crop Systems

Objective: Students will gain an understanding of the characteristics that enable weeds to colonize agroecosystems, and the role of crop/weed competition in weed colonization. Students will be able to identify weed management techniques (cultural, physical, biological, chemical, and integrated), which are based upon the principles of sustainable weed management. These techniques will be reinforced through an examination of an academic journal article.

Key Points:
- Purpose and objective of sustainable weed management
- Characteristics that enable weeds to successfully colonize cropping systems
- Crop/weed competition, and factors influencing crop/weed dynamics
- Control of weeds (cultural, physical, biological, chemical)
- Integrated techniques of weed management

References/Reading:
- Rodnburg, J., Meinke, H., and D.E. Johnson (2011). Challenges for weed management in African rice systems in a changing climate. Journal of Agricultural Science, 149. p 427-435. http://ecite.utas.edu.au/69596/2/PES69596%20Rodenburg%20et%20al.2011_JAS.PDF.

Discussion Questions:
- What is the main idea of the paper? What is the crop of focus and what are the authors investigating?
- What are the direct effects of climate change on the weed crop in rice fields? How are these effects different for C3 and C4 plants?
- What are the indirect effects of climate change on the weed crop in rice fields? What resources may have to be managed differently in the face of indirect climate change, and how will the management of such resources affect the competition between weeds and rice?
- What strategies do the authors suggest for mitigating the negative effects of weeds in the face of climate change? What other strategies should be included in this agricultural system?

Session 11. Sustainable Disease Management in Crop Systems

Objective: Students will gain an understanding of the factors influencing the successful establishment of disease epidemics in agricultural systems, and will become familiar with the conventional practices that may promote disease epidemics. Students will be introduced to general and specific disease mitigation strategies, particularly through the use of a reading.

Key Points:
- Purpose and objective of disease control
- Factors influencing the susceptibility of crops (vs. natural vegetation) to disease epidemics
- Conventional agricultural practices that favor disease epidemics
- General epidemiological strategies for reducing losses due to disease in cropping systems
- Specific cultural and biological strategies for combating disease

References/Reading:
- Pal, K.K. and B.M. Gardener (2006). Biological Control of Plant Pathogens. The Plant Health Instructor. http://www.apsnet.org/edcenter/advanced/topics/Documents/PHI-BiologicalControl.pdf.

Discussion:
- What is biological control?
- What is a biological control agent?
- What are the seven types of species-species interactions that can occur in the field? How do these interactions relate to the concept of biological control?
- What are the three types of interspecies antagonisms? What are the mechanisms associated with each of these antagonisms?
- Using the resources outlined in the article, what types of pathogens (i.e., viruses, diseases, fungi) are problematic in Liberia, and how could biocontrol be used as a method to reduce the infection of crops?

Session 12. Agroforestry Systems

Objective: Students will gain an understanding of the characteristics and classification of sustainable agroforestry systems, and the potential role of implementing an agroforestry system. Students will also become familiar with the basic design and management options of these systems, as well as the advantages and disadvantages of these operations.

Key Points:
- Definition of agroforestry, including characteristics (structure, sustainability, productivity, adaptability) and classifications of agroforestry systems
- Potential role of trees in enhanced production (soil characteristics, microclimate, biological components, productive role)
- Design, plant arrangement, and management options in agroforestry systems
- Environmental and socioeconomic advantages of agroforestry systems, constraints of agroforestry systems

References/Reading:
- Sileshi, G., Akinnifesi, F.K., Ajayi, O.C., Chakeredza, S., Kaonga, M. and P.W. Matakal (2007). Contributions of agroforestry to ecosystem services in the miombo eco-region of eastern and southern Africa. African Journal of Environmental Science and Technology, 1:4 p. 68-80 2007. http://www.academicjournals.org/ajest/PDF/pdf%202007/Nov/Sileshi%20et%20al.pdf.

Discussion:
- What are ecosystem services?
- Why are ecosystem services important for humans?
- What does ecosystem services does agroforestry impact?
- How does agroforestry impact these ecosystem services?
- What are some specific examples of agroforestry systems providing ecosystem services given in the paper?
- How could agroforestry be implemented at your family farm or in your community?

Session 13. Aquaculture Systems

Objective: Students will gain an understanding of the potential use of integrated aquaculture ponds wherein diverse communities of fish may be produced, and which may be complemented by the diverse production of crops on the surface of the ponds (hydroponics).

Key Points:
- Definition of aquaculture, hydroponics
- Designing, arranging and managing aquaculture, hydroponics
- Role of biodiversity in aquaculture, hydroponics
- Advantages and disadvantages of integrated fish, crop production

Session 14. Economics of Sustainable Agriculture

Objective: Students will gain a foundational understanding of the basic economic principles governing agricultural systems, with particular focus on cropping systems and livestock systems. Students will be introduced to value-added products, and the processes and mechanisms that create value-added products. Students will also be exposed to rudimentary budgeting methods.

Key Points:
- Profitability of field crops and livestock is a function of costs of production, amount of product (yield) and price
- Process of value-adding to agricultural products
- Budgeting in an agroecosystem

References/Reading:
- Enterprise Budgets in Farm Management. Maryland Cooperative Extension, University of Maryland. http://www.docstoc.com/docs/24983471/Enterprise-Budgets-in-Farm-Management.

Activities: Budgeting and Value-Added

Learning how to budget is a critical step between subsistence agriculture and a profitable, sustainable operation. Please complete the budgeting activity as a wrap-up to this lesson. The budgeting activity is included as the last reading in the reading packet.

In follow-up with the idea of value-added, please come up with several ideas of ways that products that are currently being produced could be value-added to. The instructors may provide you with agricultural product to value-add to, or you can come up with your own products. You should strive to come up with value-added products that provide the most added income and are most feasible in the market (i.e., what value-added products are most likely to be bought in Liberia). Please be prepared to share these ideas with the class.

Sessions 15 and 16. Work Days - Term Project Teams, Instructor Available

Objective: The objective of this work day is to have interaction among the teams and between individual team and the instructor. The interaction should be structured around getting feedback and constructive criticism regarding the presentations that will be completed by the student teams during the following two class sessions. Students should gain perspective on their presentations, and should make any necessary changes or improvements as necessary

Session 17. Team Term Presentations - Drip Irrigation, Oil Production

Objective: Student presentations will provide an opportunity for students to engage their professional presentation skills, specifically in the presentation of technical material and using their English language skills.

Presentations: Drip Irrigation, Oil Production

Peer Review Sheet

Please write down 2-3 questions for each presentation that you may have if you were a stakeholder in the University.

Example: How would you manage the irrigation needs the crop chosen for oil production? How is this sustainable?

Drip Irrigation:

Q1 -

Q2 -

Areas of the presentation that were strong:

Areas of the presentation that could be improved:

Oil Production:

Q1 -

Q2 -

Areas of the presentation that were strong:

Areas of the presentation that could be improved:

Session 18. Team Term Presentations - Biofuels, Hydroponics

Objective: Student presentations will provide the opportunity for students to engage their professional presentation skills, specifically in the presentation of technical material and using their English language skills.

Presentations: Biofuels, Hydroponics

Peer Review Sheets

Peer Review Sheet

Please write down 2-3 questions for each presentation that you may have if you were a stakeholder in the University.

Example: How would you manage the irrigation needs the crop chosen for oil production? How is this sustainable?

Biofuels:

Q1 -

Q2 -

Areas of the presentation that were strong:

Areas of the presentation that could be improved:

Hydroponics:

Q1 -

Q2 -

Areas of the presentation that were strong:

Areas of the presentation that could be improved:

Session 19. Wrap-Up, Evaluations, Perspectives

Objective: Students will complete a reflection on the material that they were introduced to during this short course. The reflection should touch on the applicability of the course within the capacity of their future goals and aspirations. Course evaluations should also be completed.

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