Portfolio of an Off-Campus MQP Experience

Featuring
Sustainable Community Design: Landscape Architecture

Prepared by Frederick L. Hart, 2011

This project and others may be found at:
http://www.wpi.edu/academics/Depts/CEE/stantec.html
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Executive Summary

This document features results of an MQP that was conducted at the Stantec Edmonton Office in 2010. The purpose of the document is to illustrate the process of conducting an off-campus MQP and to show the type of deliverables that are expected.

The Timeline table gives an overview of steps taken when conducting an off-campus MQP. The dates used are for this coming academic year (2011 –to- 2012). For other years, similar dates would be followed.

- April’11 – Oct’11: A full year before a project is to begin, project topics are suggested and student backgrounds are provided.

- Oct’11-Dec’11: A series of conference meetings and e-mail exchanges occur during a seven week pre-project period (called a Pre-Qualifying Project or PQP). The PQP focuses on developing a scope of work, establishing communications with the academic and Stantec advisors and developing a student teams. The final deliverable of the PQP is the Scope of Work document.

- Jan’12-March’12: While at a Stantec Office, students maintain communications with their academic advisors through weekly conference calls, e-mails and file transfers. They work during normal business hours and maintain communication with their Stantec advisors during appropriate office hours. At the conclusion of their seven-week stay, the students give an oral presentation of their results (MQP Presentation) and deliver a Final MQP Report.

- April’12: The Poster Session is part of a formal poster session held at the WPI campus and the end of each academic year. An electronic copy of the poster is sent to the Stantec Office.

The Appendix contains background supporting material, including:

- Project Assessment Form
- List of Contacts
- Sample Border Crossing Letter
- A paper written by the academic advisors (F. Hart & S. LePage) and by the Stantec Advisor (K. Rodenburg).
- Student Going Global Handbook
**Timeline**

The success of these off-campus projects depend a great deal on preparation work **BEFORE** the projects are conducted. Below is our timeline of tasks – note that the work begins about **9 MONTHS** before students arrive on-site. The dates are for the 2011-12 academic year.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Action - WPI</th>
<th>Action - Stantec</th>
</tr>
</thead>
<tbody>
<tr>
<td>April ’11</td>
<td>Project Initiation</td>
<td>Send student list and resumes to Stantec Office</td>
<td>identify possible project topic areas and on-site advisors.¹</td>
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<tr>
<td>May’11</td>
<td>Topic Selection</td>
<td>Two project topics will be selected.²</td>
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</table>
| August 25 - Oct 13, 2011 (A Term) | **Project Topic Refinement** *(This is an iterative process between the student groups and the Stantec engineers.)* | • Students review Topic area selections  
• Students review Stantec materials (website, previous emails, etc.) to get a better sense of the company and the types of projects completed in the host office (Kentucky)  
• Participate in 1-2 conference calls  
• At least 1 mtg between students & advisors | • Be responsive to student/advisor emails and inquiries about topic area updates  
• Be available for 1-2 conference calls                                                                                                                                                               |
| October 13   | **A CLEAR UNDERSTANDING OF PROJECT TOPICS WILL BE DETERMINED**³            |                                                                                                                                                                                                             |                                                                                                                                                                                                            |
| Oct 25 – Dec 15, 2011 (B Term⁴) | Scope of Work, Time Schedules and references are identified | • Students collect background information that will be needed for their projects  
• Students develop a Scope of Work: identify tasks and develop a task time-line  
• Academic Faculty will act as advisors in this | Stantec Engineers will exchange ideas and technical background                                                                                                                                              |
| December 15  | **SCOPE OF WORK AND TIME SCHEDULE WILL BE DEVELOPED BY STUDENTS & SENT TO STANTEC OFFICE** |                                                                                                                                                                                                             |                                                                                                                                                                                                            |
| January 12 - March 2, 2012 (C Term) | Projects are conducted on-site | Students conduct their projects at the Stantec Office.⁵ Weekly conference calls will be held between students and campus advisors to assess progress and to keep tabs on their living arrangements and off-time activities. | Selected dates will be determined for conference call meetings that include the Stantec advisors when a more formal presentation of progress to be delivered.                                                                 |
| March 2      | **FINAL DELIVERABLES COMPLETED & ORAL PRESENTATION GIVEN AT STANTEC OFFICE** |                                                                                                                                                                                                             |                                                                                                                                                                                                            |
| April 19, 2012 | Project Presentation Day | A formal poster session is held at the WPI campus for all student projects. |                                                                                                                                                                                                            |
The project topic can be fairly general at this time. The Stantec office is not expected to pre-determine the specific projects that will be conducted 9+ months into the future. The purpose of this action is to give the students and the Stantec engineers a chance to exchange ideas about the technical nature of project topics (structural analysis, pollution assessment, soil mechanics … etc.). A number of topics that would be of interest to the students can be suggested by Stantec.

The student groups (two groups) will identify a topic (or topics) that they would like to be involved with. A primary purpose of this activity is to give the students and Stantec engineers a chance to meet and to exchange ideas.

The students are not enrolled in any credit activity during Term A.

During B term, the students are enrolled in a PQP (Preliminary Qualifying Project). This is a formal instructional period where the students are advised on how to develop a scope of work, develop a time-schedule (tasks and time requirements) and conduct literature reviews.

Students are expected to observe routine office hours. Their office work may include site visits to project locations and other offices.
Proposal and Scope of Work

This is the final deliverable after the pre-project period called a PQP (Oct-Dec). When student teams arrive on-site they must have a clear plan, as they only have seven weeks to complete their project.
Sustainable Community Design:

Landscape Architecture

Major Qualifying Project Proposal

Prepared By:
Peter Cacciatore
James Hogan
Rebecca Mattern
Angel Munoz

Jan 7th 2010
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**Description**

This project will identify the costs, benefits, and suitability of sustainable landscape architecture practices. The project will focus on green roof applications, grey water usage, and low impact development. The Project Team will develop a checklist of required site properties for each of these sustainable landscaping strategies. Site-specific costs and benefits will also be identified. All this information will then be compiled into a format that will allow a user to determine the most suitable green practices for a given site, as well as the costs associated with that practice.

The final deliverables for this project will be a Best Practices Manual (BPM) for Stantec, a final presentation for interested parties within Stantec, a capstone design that applies the BPM to a site, and a MQP report submitted to the WPI projects advisors.
Background

Sustainable development is commonly defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. (Brundtland Commission, 1987). This project will focus on green roofs, the use of grey water, and low impact development. All of these focuses can be applicable to large and small-scale projects and can be used with new construction or renovation of existing buildings. These topics will provide Stantec with an understandable approach to a more sustainable living environment and lifestyle. New and innovative ideas are coming to fruition at an overwhelming rate. By providing clear and user-friendly applications for sustainable practices, potential Stantec clients will be more receptive to proposed ideas relating to concepts of a sustainable community.

Green Roofs

A green roof can be placed on a variety of buildings so long as they have flat or mildly sloped roofs, and is in essence a garden on the roof. There are two varieties of green roofs: intensive and extensive. Extensive roofs are fairly light and tend to have between 2 to 8 inches of soil or soil-like growing material on them. This type of roof is suitable only for smaller shrubs and grasses, and is more often used when only a smaller portion of the roof is intended to be “green”. Extensive roofs are usually designed to be as maintenance free as possible, and usually are not accessible by the building users. Intensive roofs have their own built in support structure to transfer their weight to the building frame, allowing them to be much heavier. Intensive roofs tend to hold much more growing material, can support large plants such as trees and large shrubbery, and can also accommodate the weight of people. This type of roof is more expensive to install and maintain, but can provide greater storm water absorption, more insulation, and a more pleasant environment for use as a rooftop garden. In addition an owner can choose to use a semi-intensive green roof, which is a balance somewhere between the two extremes (International Green Roof Association).
**Grey Water**

Grey water refers to water within a building that has been used for applications such as showering or the washing of clothes. Although there are more contaminants than in potable water, grey water can still be used for a variety of uses with little to no treatment depending on the quality of the grey water and the intended use. A common example of the use of grey water is toilet flushing. Because grey water is used instead of potable water, the overall water treatment needs of the building are reduced, which saves money and reduces water demand.

Grey water can also be released into local streams and rivers if it is treated using a biofiltration system. A biofiltration system is an artificial wetland that purifies grey water to an acceptable quality for release into the natural habitat. This also reduces the amount of water that needs to be treated in a large and expensive water treatment facility.

**Low Impact Development**

A sustainable landscape is an industrious ecosystem that preserves the physical and biological processes taking place on that landscape. Planned and controlled sustainable landscapes maintain hydrological function, plant and animal diversity, healthy soil characteristics, and human wellness. By selecting plants that occupy the existing surroundings, the integrity of the watershed will be maintained. Preservation of mature healthy plants and reducing resource-intensive features, such as manicured lawns, will lessen harmful effects on the ecosystem. Reusing landscape by-products, like shredded leaves and vegetative debris, will reduce the amount of virgin material needed. Most importantly, welcoming and useful common areas promote social interaction within a natural environment for the community.

Bioretention areas play a major role in mitigating the effects of storm water runoff. Through sloped grounds, runoff is directed into such areas, “shallow landscaped depressions” which are “designed to incorporate many of the pollutant removal mechanisms that operate in forested ecosystems.” This provides an efficient method for preventing undesirable chemicals,
transported by runoff, to reach a storm drain system and eventually a supply source. Instead, the filtered runoff can be collected and transferred to a storm drain system. Through the use of native plants and soils, these areas serve as a natural filter within a developed site. Bioretention areas can be flexibly designed for a variety of projects, although they have been most applicable to small sites within urban areas. However, their increasing use in parking lots, swales, and residential subdivisions of all sizes, is providing evidence for a wider range of applicability.

Permeable interlocking concrete pavement consists of a layer of separated, concrete pavers which allow water to enter small stone-filled joints. The water that enters the joints flows through a base of crushed stone layers which create small voids. Through these voids, the water infiltrates back into the soil sub-grade. “The stones in the joints provide 100% surface permeability and the base filters storm-water and reduces pollutants.” Although implementing permeable pavement tends to be more expensive than impervious pavements, it is less expensive than typical storm-water drainage systems.
**Scope of Work**

The scope of this project includes the analysis of sustainable landscape architecture practices. The costs, benefits, and suitability of green roofs, the use of grey water, and low impact development strategies will be identified and compiled into a usable format. This usable format will be a best practices manual outlining the findings of the project.

**Deliverables**

The final deliverables for this project include a Best Practices Manual (BPM) regarding sustainable landscape planning, a formal presentation to Stantec employees, a Capstone-Design and an MQP report. The BPM will assess costs, benefits, and suitability of green roofs, the use of grey water, and low impact development practices. This BPM will assist Stantec employees in educating their clients as well as determining the best design options to meet their clients’ needs. The developed BPM will be incorporated into an existing electronic manual for the internal use of all Stantec employees.

A formal presentation of this project’s research will be prepared for Stantec employees. This presentation will focus on the value of the designed BPM for Stantec employees and will include examples of how the BPM will assist in meeting their client needs.

A Capstone Design will be incorporated as part of this project in which the project team will show how the BPM and research findings can be used to solve either an existing or fictitious problem. Appropriate design calculations, results, and conclusions will provide evidence regarding the usability and effectiveness of our BPM. An MQP report, including a background, literature review, methodology, results, and conclusion, will be submitted to WPI. The report will provide a detailed description of the overall project. This report will include information regarding all of the background research that was used to develop but omitted from the BPM deliverable to Stantec.
Affected Organizations and Business Processes or Systems

The organizations that will be most affected by this project will be Stantec and WPI. Additionally, the clients of Stantec will be educated about sustainability using the information collected and analyzed by the project. WPI will be affected by this project because it will provide new information within the field of sustainability and can be used as a reference by other similar subsequent projects. In the case of Stantec the project has the opportunity to make a difference in the way potential sustainable practices are presented to clients. The proposed BPM has the potential to provide Stantec employees with a manual which will help employees better educate clients about sustainability concepts. The BPM also will help make the implementation of sustainable designs easier by summarizing the main points that are relevant to Stantec. This will allow Stantec employees to identify relevant details pertaining to sustainable architecture without having to do the research themselves.
Methodology

The goal of the project is to provide Stantec with a best practices manual relating to sustainable landscape architecture practices that will outline the suitability of the practices for a particular site and an analysis of the benefits and cost associated with each practice. This manual should be user friendly and have the ability to give users the ability to develop options for a client based on the characteristics of a site. To do this the following steps will be taken to construct this manual.

1. Identify sustainable practices within landscape architecture.
2. Develop metrics to measure sustainability.
   a. Energy usage.
   b. Natural resource usage.
   c. Expelled pollutants.
3. Analyze sustainable practices to determine their characteristics.
   a. Use case studies to determine benefits of sustainable practice.
   b. Use interviews to determine benefits of sustainable practice.
      i. Stantec employees.
      ii. Field experts, members of USGBC.
4. Develop site suitability criteria for each sustainable practice.
5. Identify and quantify the benefits for each sustainable practice.
   a. Identify suitability of practice towards LEED certification.
6. Identify and quantify the costs of implementation each sustainable practice.
7. Compile site suitability criteria, benefits, and costs of each sustainable practice into best practice manual.
8. Apply this methodology to the following topics within sustainable landscape architecture:
   a. Green roof applications.
   b. Sustainable grey water practices.
   c. Low impact development.
This best practice manual will be applied to a site in order to fulfill the capstone design criteria. This application will also be an effective way to test the BPM to test its user friendliness.
## Appendix A - Preliminary Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>1\textsuperscript{st} Week Jan 14\textsuperscript{th}-15\textsuperscript{th}</th>
<th>2\textsuperscript{nd} Week Jan 18\textsuperscript{th}-22\textsuperscript{nd}</th>
<th>3\textsuperscript{rd} Week Jan 25\textsuperscript{th}-29\textsuperscript{th}</th>
<th>4\textsuperscript{th} Week Feb 1\textsuperscript{st}-5\textsuperscript{th}</th>
<th>5\textsuperscript{th} Week Feb 8\textsuperscript{th}-12\textsuperscript{th}</th>
<th>6\textsuperscript{th} Week Feb 15\textsuperscript{th}-19\textsuperscript{th}</th>
<th>7\textsuperscript{th} Week Feb 22\textsuperscript{nd}-26\textsuperscript{th}</th>
<th>8\textsuperscript{th} Week Mar 1\textsuperscript{st}-5\textsuperscript{th}</th>
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<td>Research particular “green” strategies</td>
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<td>Find case studies on effectiveness of strategies</td>
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<td>Determine suitable location characteristics</td>
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<tr>
<td>Design user friendly application of suitable location characteristics</td>
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<tr>
<td>Define costs and benefits of practices (LEEDs, life cycle costs, green benefits)</td>
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<tr>
<td>Create BPM</td>
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<tr>
<td>Present findings to Stantec.</td>
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<tr>
<td>Apply the BPM to a project (capstone)</td>
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<tr>
<td>Compile all findings into MQP report.</td>
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Appendix B – Tasks

Week 1

- Main Objective:
  - Develop solid knowledge base
- Tasks:
  - Research individual topics
  - Find applicable case studies
  - Focus topics down – decide for good on topic titles and subjects
  - Begin literature review and bibliography
  - Add to annotated bibliography

Week 2

- Main Objective:
  - Complete general research, and begin thinking about deliverables
- Tasks:
  - Finish all background research
  - Continue to search for case studies
  - Begin research on location data and how it affects each topic
  - Study format of previous Stantec documents to begin building our deliverable to Stantec
  - Continue literature review and background for MQP
  - Arrange interviews with Stantec employees
  - Add to annotated bibliography

Week 3

- Main Objective:
  - Complete case study research activities, prepare to start creating BPM
- Tasks:
  - Finish case study research
  - Continue to research location information
  - Determine how locations will be split up
  - Set up framework and formatting for BPM
  - Complete literature review and background (open ended to be added to later)
• Interview Stantec Employees
• Add to annotated bibliography

**Week 4**

- **Main Objective:**
  - Finish location analysis, begin to assemble material for BPM, begin cost benefit analysis
- **Tasks:**
  - Finish all research associated with location data
  - Begin compiling location data together into BPM framework
  - Prepare to start writing BPM – turn research into outline form
  - Continue work on MQP – Methodology
  - Start to compile costs and benefits associated with each topic individually

**Week 5**

- **Main Objective:**
  - Finish location analysis, begin actually writing BPM
- **Tasks:**
  - Finish framework of BPM, including all location data
  - Each person begin writing about their topic in terms of the BPM
  - Continue work on cost benefit analysis
  - Continue work on MQP – Methodology and begin results

**Week 6**

- **Main Objective:**
  - Continue to work on BPM, plan capstone project
- **Tasks:**
  - Work on the BPM – Submit preliminary draft for review
  - Come up with ideas as to how to apply the BPM to a capstone design project
  - Decide on capstone
  - Continue work on MQP – Results and Discussion
  - Continue cost benefit analysis

**Week 7**
• Main Objective:
  o Complete BPM

• Tasks:
  o Finish cost benefit analysis, and put into the BPM
  o Finalize the draft of the BPM, and submit to Klass for review
  o Begin the capstone design project
  o Begin thinking about the presentation
  o Work on MQP – Should be complete draft – submit for review

**Week 8**

• Main Objective:
  o Presentation, Capstone Design, and MQP

• Tasks:
  o Present the BPM and other knowledge gained to Stantec
  o Present Stantec with final deliverable
  o Complete capstone design problem if possible
  o Complete final draft of MQP if possible
ON-SITE FINAL PRESENTATION

At the conclusion of the on-site period (March), students give a final oral presentation to Stantec personnel.
**Sustainable Landscape Architecture**
**Best Practices Manual**

Peter Cacciatore  
James Hogan  
Rebecca Mattern  
Angel Munoz  

March 4, 2010

**Worcester Polytechnic Institute**  
Civil and Environmental Engineering

- Major Qualifying Project  
- Stantec Project Center  
  - Center Director: Professor Frederick Hart  
  - Faculty Co-Advisor: Professor Suzanne LePage  
  - On-Site Stantec Advisor: Klaas Rodenburg

**Project Scope**

- **Sustainable Development**  
  - Stantec’s Commitment

- **Sustainable Landscape Architecture**
  - Social  
  - Environmental  
  - Economic

**Project Deliverables**

- **Best Practices Manual (BPM)**
- **Subprojects**
  - Kingston, Jamaica  
  - Clareview Charrette
- **Capstone**
- **Electronic Best Practices Manual (eBPM)**
**BPM Format**

- Technology Introduction
- Technical Description
- Potential Benefits
- Potential Risks and Considerations
- Estimated Costs
- Potential LEED Credits
- Relevant Stantec Projects
- Stantec Employee Interviews

**BPM Sections**

**Landscape Architecture Practices**
- Green Roofs
- Green Walls
- Permeable Pavements
- Stormwater Infiltration Systems
- Constructed Wetlands
- Rainwater Harvesting
- Xeriscaping

**Non-Landscape Architecture Practices**
- District Energy
- Air Handler Condensate Recovery

**Redevelopment of Downtown Kingston, Jamaica**

- Kingston's Urban Development Corporation
- Identified Kingston's wants & needs for downtown revitalization
- Compiled appropriate sustainable designs with the following information:
  - Description
  - Cost/Benefits
  - Evidence
  - Sources

**Kingston Project Application**

- Provided base structure for the BPM format
- Developed group cohesiveness
- Granted further interaction with Stantec resources and employees
Eco-Charrette

• City of Edmonton
  – Clareview Recreation Centre
• Used the BPM sustainable practices
  – Researched whether each practice was suitable
• Attended the Eco-Charrette
  – All parties involved were present
  – Notes were taken ideas and concepts for the proposed areas

Eco-Charrette Application

• Granted experience in multidiscipline group interaction
• Provided an opportunity to apply the Best Practices Manual
  – Discover strong points and areas that need improvement
• Supplied the basis of the capstone design idea for the Major Qualifying Project

Capstone Design Project

• Application of Green Roof BPM section
  – Clareview Recreation Centre Project
  – Made simplifications and assumptions
    • Size and shape of building and site
    • Existing building and proposed expansion
  – Conducted a feasibility analysis
    • Extensive on whole structure
    • Intensive on whole structure
    • Combination of intensive and extensive

Capstone Design Project Analysis

• Costs
  – Installation of roof
  – Structural Upgrade
  – Roof maintenance
• Benefits
  – Energy savings
  – Stormwater runoff reduction
  – Air quality
Capstone Design Project Results

- Intensive roof on current building cost prohibitive.
- Only the all extensive green roof had a pay back period due to yearly savings.
  - Approximately 55 year payback.
- Benefits for all extensive and combination were equivalent.
- Therefore the all extensive was chosen.


- Buildings Engineering eBPM
- Split into sections
  - Resource Management
  - Water Management
- Features
  - Shared Directory
  - CoP Leaders
  - Links to Relevant Stantec Projects
  - BPM Information

Application of the BPM

- Gain basic knowledge of a subject
  - Provides an effective summary which is concise yet detailed
- Connect to community of practice leaders
- Provides case studies and relevant examples
  - Cites specific projects in many places to provide a starting point for further research

Application of the BPM

- Useful for clients interaction – find answers to big questions
  - “Will it work on my projects?”
  - “How much will it cost?”
  - “How will it benefit me?”
- Serves as a repository for new information
  - Useful for designers and engineers learn about new trends and post links to other resources and projects
Living Document

- Essential to the long term usefulness of the eBPM
  - Add or remove material as technology changes
  - Keep information as up to date as possible
  - Ensure the future use of the eBPM
- Future groups of students or Stantec employees should continue to add to the eBPM

Project Experience

- Balance of time in project was not ideal
  - Analysis should have been started earlier
- Application to real work situations helped focus the project
  - Experience with Kingston Redevelopment project and Clareview design charrette helped to identify important sections
  - Example: In Kingston Redevelopment project geographic location was very important
    - District heating, wave power not applicable
- Expert opinions were useful for filling gaps in our research
  - Interviews should have been conducted earlier in the project,
    - Availability of employees limited the number of responses received.
FINAL REPORTS

A CD provided with this printed document contains the final MQP report and the Best Practice Manual from the Edmonton project.

The reason for two separate deliverables for this project was to meet all academic requirements (the MQP report) and to provide a more streamlined document for the Stantec Office (Best Practice Manual).

You may also download these files at: MQP:
http://www.wpi.edu/Images/CMS/CEE/SustainableLandscapeMQP.pdf

Best Practice Manual:
www.wpi.edu/Images/CMS/CEE/SustainableLandscapeBPM.docx
POSTER PRESENTATION

When students return to campus, they are required to give a formal poster presentation (April) on the WPI Campus. An example poster follows. An electronic file of the poster is delivered to the Stantec Office.

Submitted By:
Peter Cacciatore, James Hogan, Rebecca Mattern, Angel Munoz

Introduction

To help engineers at Stantec Consulting Ltd. identify applicable sustainable landscape architecture practices in their planning and design work, this project compiled a Best Practices Manual (BPM) that was posted on StanNet (Stantec’s secure internal web site) in an electronic format. The topics covered in this project include:

- Green roofs
- Green walls
- Permeable pavements
- Stormwater runoff infiltration
- Constructed wetlands
- Rainwater harvesting
- Xeriscaping
- Air Handler Condensate Recovery
- District Energy Systems

Best Practices Manual Format

The Best Practices Manual (BPM) that was created consists of information on sustainable landscape architecture practices. The information that was included for each practice includes:

Potential Benefits: Benefits that could be utilized by enacting the sustainable practice are listed. Case studies were used whenever possible.

Potential Risks and Considerations: Any major risks to the environment, effectiveness of the systems, or social considerations associated with the practice are listed.

Estimated Costs: All cost data gathered on a practice is presented including rough estimates from design professionals in the field, the costs of previous case studies, and published rules of thumb.

Recommended Site Characteristics: Any site characteristics that might affect the practice are listed here.

Potential LEED Credits: LEED credits the practice could help obtain are listed.

Relevant Stantec Projects: Past Stantec projects that contain similar design aspects to the aforementioned practice are listed with a brief description.

Stantec Employee Interviews: The responses of Stantec employees to interviews conducted via email, phone, or in person are listed here.

Application of Best Practices Manual

The best practices manual was applied to the potential installation of a green roof on a building located on the Clareview Recreational Center & Branch Library site in Edmonton, Alberta, Canada. An existing structure and a proposed expansion were analyzed to determine the feasibility of installing either an extensive or intensive green roof. The difference between an intensive and extensive green roof is shown in the table below:

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Small Trees / Large Shrubs</th>
<th>Small Shrubs / Grasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Roof</td>
<td>Extensive</td>
<td>Intensive</td>
</tr>
<tr>
<td>Growing Medium Thickness</td>
<td>Between 15 cm and several meters deep</td>
<td>Between 2cm to 20cm</td>
</tr>
<tr>
<td>Weight</td>
<td>Large Load - Often Required Dedicated Structural Support</td>
<td>Less Load - Can be Retrofit to Existing Buildings</td>
</tr>
<tr>
<td>Cost</td>
<td>From US$25 / ft² to US$75 / ft² and Up.</td>
<td>US$20 / ft² or 50% More than Normal Roof</td>
</tr>
</tbody>
</table>

The feasibility of three green roof options were compared. Those options were: an extensive green roof on the entire structure, an intensive green roof on the entire structure, and an intensive roof on the new construction with an extensive on the old construction. To determine the most attractive option the following factors were considered:

- Thermal benefits
- Storm water management benefits
- Improvements to the surrounding air quality
- Structural considerations
- Installation costs

Based on environmental benefits and cost information, it was concluded that the extensive roof on the existing building and the new construction was the best option.


Once the BPM was completed, it was posted to the electronic Best Practices Manual (eBPM) available on Stantec’s internal network. The eBPM is used by Stantec employees to familiarize themselves with the basics of the sustainable practices studied.

The web pages were created using html coding. An example of a web page can be seen in the figure to the left.

Acknowledgements

Project Advisors: Fred Hart and Suzanne LePage
Project Sponsor: Klaas Rodenburg and Stantec Inc.
Appendix
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App V: Student Going Global Handbook (Edmonton)........................... p. 43
Civil & Environmental Engineering Department
Assessment of MQP Outcomes

1. General Project Information

Project Title: ____________________________________________

Student(s): ____________________________________________
(list majors of non-CEE students)

Terms and Credits: E A B C D
(circle one)

Total credit: ______ Page Numbers: ______ Worth credit per student? Yes / No

Final Project Grade:

Was the project used for the capstone design requirement? Yes ______ No ______

Where did the idea for the project originate? Student(s) ______ Advisor(s) ______
External Sponsor ______

The project was performed primarily: On Campus ______ Off Campus (if off campus, where?) ______

Primary Financial Sponsor:

WPI ______ Research Grant ______ Industry or Government Sponsor ______
Other (please specify) ____________________________________________

Approximate Budget:

Did the students prepare the budget? Yes ______ No ______

Did the students write a project proposal? Yes ______ No ______

Did student(s) give an oral presentation: (check all that apply)

Project Presentation Day ______ On-campus research group ______ Off-campus project sponsor ______
Conference ______ Other (please specify) ____________________________________________

Has this project resulted in, or is it expected to result in a:
Conference presentation ______ Journal Paper ______
Intellectual Property (need to discuss how to protect) ______

Please specify any awards that have been applied for or received by the project students:
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
MQP Review Form (2008)
Department of Civil & Environmental Engineering

Part II
Civil Engineering Area (Appr. %)

<table>
<thead>
<tr>
<th>Area</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structures</td>
<td></td>
</tr>
<tr>
<td>Geotechnical</td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
</tr>
<tr>
<td>Urban Planning</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td></td>
</tr>
<tr>
<td>Construction &amp; Project</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>Architectural Engineering</td>
<td></td>
</tr>
<tr>
<td>Information Technology</td>
<td></td>
</tr>
<tr>
<td>Fire Protection</td>
<td></td>
</tr>
</tbody>
</table>

Percent Control: Research _____ %  Professional Practice _____ %

Part III
Capstone Design: System _____ Component _____ Process _____ Experiment _____
Describe design briefly:

<table>
<thead>
<tr>
<th>Component</th>
<th>Not Applicable</th>
<th>Applicable but Non-Existent</th>
<th>Inadequate</th>
<th>Satisfactory</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open ended need for Design</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Design Problem Definition</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Statement of Design Criteria</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Consideration of Alternative Designs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Development of Design</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Final Design Review and/or Test</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Report Components</td>
<td>Not applicable</td>
<td>Applicable but Non existent</td>
<td>Inadequate</td>
<td>Satisfactory</td>
<td>Excellent</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
<td>-----------------------------</td>
<td>------------</td>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Definitions of Objectives &amp; Scope</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Conclusions</td>
<td>0</td>
<td>1</td>
<td>All obvious conclusions are not mentioned or unsupported conclusions</td>
<td>All obvious</td>
<td>Good inference over and above obvious conclusions</td>
</tr>
<tr>
<td>Procedures</td>
<td>0</td>
<td>1</td>
<td>Not clearly articulated – impossible for someone who is unfamiliar with the study to understand</td>
<td>Clearly articulated and possible to understand</td>
<td>Clear, lucid and self contained and can be used to replicate the study by any person in the subject area</td>
</tr>
<tr>
<td>Data collection</td>
<td>0</td>
<td>1</td>
<td>Incomplete data collection</td>
<td>Sufficient data collection</td>
<td>Comprehensive data collection</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>0</td>
<td>1</td>
<td>Applied inappropriate</td>
<td>Applied appropriate, commonly used analysis correctly for all data</td>
<td>Applied state of the art/superior analytical techniques correctly for all data and/or Use of Alternative Analysis with Benchmarking Data</td>
</tr>
<tr>
<td>Economic Analysis</td>
<td>0</td>
<td>1</td>
<td>Applied inappropriate</td>
<td>Applied appropriate, commonly used analysis correctly with appropriate constants</td>
<td>Applied in-depth analysis of data using state of the art/superior analysis procedures, correctly and/or Use of Alternative Analysis with Benchmarking Data</td>
</tr>
<tr>
<td>Reference</td>
<td>0</td>
<td>1</td>
<td>Reference is incomplete or vague reference to specific items</td>
<td>Complete reference list with appropriate reference to specific items</td>
<td>Very comprehensive reference list for specific items with demonstrated work on literature search using journal databases</td>
</tr>
</tbody>
</table>
### Use of Computers

<table>
<thead>
<tr>
<th>Report Component</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td></td>
<td></td>
<td>Did not use computers beyond simple plotting of data</td>
<td>Used computer where their application is common for analysis</td>
<td>Used computers very efficiently to significantly improve accuracy/efficiency of the work, in addition to use in common applications</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td>Did not use computers beyond simple plotting of data</td>
<td>Used computer where their application is common for design</td>
<td>Used Computers in All aspects of design; applied superior/state of the art Computer Methods for improving/refining design</td>
</tr>
<tr>
<td>Report Generation</td>
<td></td>
<td></td>
<td>Did not use computer beyond simple word processing</td>
<td>Used word processor and incorporated/integrated additional software/multi-format files</td>
<td>Used computer and sophisticated software to significantly enhance the layout and format of the report</td>
</tr>
<tr>
<td>Internet</td>
<td></td>
<td></td>
<td>Used invalid or unsubstantiated internet sources</td>
<td>Used the Internet appropriately to obtain valid information</td>
<td>Used the internet to improve the project and the report significantly</td>
</tr>
<tr>
<td>Professional Presentation</td>
<td></td>
<td></td>
<td>Did not use computer beyond simple word processing</td>
<td>Used computer and incorporated/integrated additional software/multi-format files</td>
<td>Used computer and sophisticated software to significantly enhance the layout and format of the report</td>
</tr>
<tr>
<td>Other Deliverables</td>
<td></td>
<td></td>
<td>Did not use computer beyond simple word processing</td>
<td>Used word processor and incorporated/integrated additional software/multi-format files</td>
<td>Used computer and sophisticated software to significantly enhance the layout and format of the report</td>
</tr>
</tbody>
</table>
Part VI. Specific Program Outcomes

Please indicate the extent to which each CEE Department Program Outcome listed below was an aspect (or was intended to be an aspect) of the MQP. Use the following scale: 0 = Not Applicable, 1 – Applicable but Non-Existent, 2 = Inadequate, 3 = Satisfactory, 4 = Excellent. Then, for any outcome that was an aspect of the project, assess the level of ability that the student(s) demonstrated in this area. Use the following scale: 0 = Not Applicable, 1 – Applicable but Non-Existent, 2 = Inadequate, 3 = Satisfactory, 4 = Excellent.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Extent</th>
<th>Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Components of civil engineering practice:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Technical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Professional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ethical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Preparation for the future changes in civil engineering.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Understanding of basic principles of civil engineering (please list and assess each principle).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td></td>
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<tr>
<td>d)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Understanding and application of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Science (such as biology, chemistry, physics, geology)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Mathematics (such as differential and integral calculus, differential equations, linear algebra, and probability and statistics)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Understanding of engineering design process, including the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Ability to perform design.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Multidisciplinary aspects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Collaboration skills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Communication skills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Consideration of cost.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Consideration of time management.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Demonstration of an ability to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Setup experiments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Gather and analyze data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Apply the data to practical engineering probs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Suggested Contacts

1. Frederick L. Hart (Project Center Director): flhart@wpi.edu, flhart1@mac.com, 508-376-7654 (cell), 508-831-5421 (office)

2. Suzanne LePage (Project Advisor): slepage@WPI.EDU, 1-774-289-3308 (cell), 508-831-5598 (office)

3. Klaas Rodenberg (Did projects in Edmonton), klaas.rodenburg@stantec.com, 780-982-7983 (cell), 780-917-7006 (office)

4. Daniel A. Gilbert (Did projects in Kentucky), Daniel.Gilbert@stantec.com, (859) 230-6396 (cell), (859) 422-3144 (office)

5. Greg Yankey (Did projects in Kentucky), Greg.Yankey@stantec.com, (859) 619-6966 (cell), (859) 422-3095 (office)

6. Mark Willis (Did projects in Kentucky), Mark.Willis@stantec.com, (859) 619-0956 (cell), (859) 422-3000 (office)

7. Leanne Johnson (WPI Project Program Administrator), ljohnson@WPI.EDU, 508-831-6089 (office)

8. Richard Vaz (Dean of Projects Program), vaz@WPI.EDU, 508 831 5344 (office)

9. WPI/Stantec Project Website: http://www.wpi.edu/academics/Depts/CEE/stantec.html
October 27, 2009

Canadian Border Control

Officer Kris Nelson:

The following full time students at Worcester Polytechnic Institute (WPI) in Worcester, Massachusetts, are seeking to enter Canada to pursue supervised academic project studies as part of their undergraduate degree from WPI. They will not be attending a Canadian university nor will they be getting credit from a Canadian university. They will be receiving credit from Worcester Polytechnic Institute.

| Jenna Beatty | Sean Joyce | Jenny Lund | Huong Nguyen | Thomas Parenteau | Calvin Robertie |

All of these students’ tuition, fees and accommodation have been pre-paid. While completing their project work at Stantec, they will not be receiving any compensation.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Natalie A. Mello
Director of Global Operations
Interdisciplinary and Global Studies Division
The Stantec Project Center
An Off-Campus Capstone Design Experience
Frederick L. Hart1, Klaas Rodenburg2 and Suzanne LePage1
1Worcester Polytechnic Institute
2Stantec, Edmonton, AB

The WPI Civil & Environmental Engineering (CEE) Department is working with North American engineering and design firm, Stantec, to conduct undergraduate student projects at Stantec office locations throughout the US and Canada. Students are advised remotely by on-campus faculty members and on-site by Stantec personnel. This paper describes how these off-campus projects help meet the CEE Department’s capstone design experience degree requirements and concludes with points of interest for others that may wish to adopt a similar learning experience.

Corresponding Author: Frederick L. Hart, flhart@wp.edu

Introduction

Our collaboration combines WPI's fundamental educational philosophy of a project-based learning experience with Stantec's vision to continually expand their professional service capabilities and foster valuable research and learning experiences for the next generation of engineers. WPI, located in Worcester, Massachusetts, currently has over 3,000 students enrolled in its undergraduate programs. Stantec provides professional consulting services in planning, engineering, architecture, interior design, landscape architecture, surveying, environmental sciences, project management, and project economics for infrastructure and facilities projects. The company has more than 10,000 employees operating out of over 130 locations in North America.

Projects conducted by the WPI students are in the civil and environmental engineering areas with a current focus on sustainable solutions. Each year, two or three teams of three-to-four students work on projects identified by CEE faculty and Stantec. Each team is advised remotely by the center director and a faculty co-advisor. An on-site Stantec advisor also works directly with the students.

Project topics and a general understanding of scope are developed a year in advance. This provides enough time for students to register and for the advisors to finalize student accommodations during their off-campus work. Students are required to pay for their travel, lodging and other expenses, but appropriate housing facilities, local transportation, emergency facility locations and emergency contacts are finalized ahead of time by the CEE Department and WPI’s Interdisciplinary Global Studies Division (IGSD) with help from the Stantec office personnel.

Objectives

Three primary objectives of the off-campus experience are to:

1. Provide students with a transition from the academic environment to a professional practice environment,
2. Introduce students to the culture of working within a large corporation, and
3. Guide the students through a design process.

The Transition from Academia to Practice

Perhaps the most challenging concept for students when transitioning from academia to professional practice is to truly adapt to their new position of leadership and responsibility. Throughout their educational careers, students are typically conditioned to rely on step-by-step guidance from their teachers. Although such a learning environment may be beneficial, an unintended side effect is that students will relegate themselves to a secondary role. Why take the risk of doing it the wrong way – let the teacher show you the right way and then simply follow directions. This cycle of instruct and replicate may be comfortable for the students and their teachers, but will break down when the students find themselves involved with a much more complex open-ended design problem. There is no one-way of approaching the problem, and there are a host of solutions.

The students must now redefine their professional make-up with a different set of qualities or attributes, such as those suggested by Davis1. Based upon our experience, we find the following six attributes and performance factors most applicable to succeeding with off-campus projects:

Attribute 1 – Self Motivation
- Accepts responsibility
- Provides leadership and a focused direction

Attribute 2 – Effective Teamwork Skills
- Cultivates professional relationships
- Networks well within and outside of the team
- Resolves conflicts professionally and effectively
- Is considerate of diverse backgrounds/disciplines
- Is an effective team player

Attribute 3 – Time Management Skills
- Works within time and resource constraints
- Defines targets and maintains focus on goals

Attribute 4 – Creativity & Innovation
- Is a self-sufficient learner
- Conducts independent research
- Creatively approaches problem-solving
Attribute 5 – Communication Skills
- Listens to team members and supervisors
- Conducts regular progress reports
- Presents written and oral final deliverables

Attribute 6 – Social and Professional Awareness
- Identifies environmental impacts
- Is aware of ethical considerations
- Is professionally responsible

The Culture of Working in a Large Corporation

As organizations grow in size and complexity, success increasingly depends on teams or multi-disciplined groups, not “a genius with a thousand helpers.” Success is driven by the ability of teams to engage in complex problem solving that involves a transformation has created a new type of worker that are rapidly moving towards a knowledge economy. This requires people to take the time from their own projects to assist. They are provided with a safe environment where they can explore, and more importantly, fail.

We are currently living in an information economy and are rapidly moving towards a knowledge economy. This transformation has created a new type of worker that “engage[s] in complex problem solving that involves a great deal of independent judgment and requires high levels of education or human capital.” This shift has forced organizations to adapt from employing people that are paid to “execute according to plan” to employing knowledge workers who “are primarily paid to create.” As more and more work becomes knowledge based it will become increasingly important for organizations to develop a collaborative climate where workers can creatively solve problems.

When hosting WPI student teams, Stantec strives to create an environment where students are presented with a challenge, but not with step-by-step instructions on how to achieve the objective. When students arrive they are welcomed as any new employee. They are provided with a cubicle, security card and computer and orientation of the company. They are left on their own to complete their project. An important objective of hosting the students on site is for them to integrate the theory and the practice -- as much is learned at the water cooler as staring at a computer screen. The challenge for the students is to identify the people within the organization that possess the knowledge required for their project and persuade these people to take the time from their own projects to assist. As Stantec has more than 130 offices, the person may not reside physically in the same office as the students. This adds another layer of complexity.

To help them navigate this large organization the sponsor facilitates introductions, in person or electronically, with some of the experts that have worked on similar projects and often these lead to further introductions. Project topics are deliberately kept broad and no deliverable is defined. Student teams are expected to work together in developing a final project deliverable and are expected to search out the resources and expertise within Stantec with only limited guidance from the sponsor. This is representative of the complex assignments Stantec works on with their clients. Students are judged on their process, final presentation and how well they communicate what they have learned so that this knowledge can be integrated into Stantec’s knowledge repository. Students are provided with a safe environment where they can explore, and more importantly, fail.

The Design Process

Undergraduate students are certainly provided with many basic skills needed to successfully plan and complete a design problem through coursework experiences, but are rarely given the opportunity (or challenge) to combine those skills. Placing the students in this off-campus environment and giving them an open-ended problem with realistic constraints meets that objective. Features of a design problem that are needed include:

- An Open Ended Problem -- multiple approaches may be used and there are many correct answers.
- Basic Skill requirements -- science, mathematics and engineering science
- A Systematic Methodology -- formulate the problem, identify specifications, and define constraints
- A Decision Process -- iterative process, compare and rate alternate solutions
- Realistic Constraints and Established Design Standards -- practicality, economic considerations, social impacts and sustainability.

Methods

Student teams work with the faculty advisors one term prior to their off-campus term (each term is approximately seven weeks). During this pre-project period, the students conduct literature reviews, prepare a scope of work and develop a proposal complete with itemized tasks, target goals and a timetable. Communication with the off-campus project advisor (Stantec employee) is accomplished through a variety of methods including telephone conferencing, video recordings, web-based communications and e-mail. Meetings with the faculty advisors are held on a weekly basis – sometimes during a conference call with the Stantec advisor.

Define the Scope of Work

The scope of work is jointly defined by the sponsor (Stantec) in collaboration with the WPI faculty advisors and the student teams (usually about three students per team). This is a collaborative effort involving three distinct perspectives. In general the sponsor will want a project that can be used by their organization, the faculty advisors will want a project that challenges their students to satisfy the overall objectives of the off-campus experience, as listed in the previous section, and the
students will want a project that will allow them to use many of the basic skills they have gained through coursework. The primary objective at this stage of work is to establish a professional rapport between the student team and the advisors (faculty advisors and off-campus advisors) and to clearly define the project topic and constraints.

**Prepare a Proposal**

With the scope of work finished, students are next asked to develop a more comprehensive description of the project topic with an annotated bibliography and a detailed timetable. By this time, the students should begin to realize the meaning of the phrase: “This is your project” -- which has been repeated many times during the scope of work phase. In other words, Objectives 1 & 2 are being addressed with increased emphasis. The student groups maintain regular communication with the Stantec advisor and meet with the faculty advisors weekly.

With the completion of the proposal, the student team should have developed a professional line of communication with all advisors, have a clear understanding of the project scope and are ready to efficiently begin work on their project. Meeting this level of readiness is absolutely essential, as the groups are strictly constrained to a seven-week period to complete their projects at the off-campus location. By the close of seven weeks, the groups are required to deliver their finished product to the client and give a formal oral presentation.

**Team Building**

Throughout the pre-project term and into the project term, students are asked to develop and participate in team-building exercises. These exercises range from informal social gatherings with each other and perhaps the faculty advisors to more formal activities – such as organizing a dinner with Stantec employees while at the off-campus location. Experience in working with student groups on these off-campus projects with very strict time constraints with clearly defined targets and deliverables has clearly confirmed the need for this activity.

**Conduct the Project On-Site**

Once the students arrive at the off-campus site, they are oriented to routine office protocols (IDs, computer assignments, desk assignments, an introduction to office staff, telephone and computer access codes … etc). The students are expected to function as Stantec employees and work in the office (or off-site field locations) during normal working hours, hold periodic progress meetings with their Stantec advisor, organize meetings with Stantec personnel (as recommended by their advisor), and participate in office functions.

During the project period, the students are completely immersed into a professional practice environment and will experience:

- Sudden shifts in the project direction (sometimes suggested by the advisors, sometimes suggested by the student group).
- The need to arrange and conduct meetings with people who are very busy and pressed for time.
- Conflicting opinions from people they meet.
- Responding to the “Five Minute Elevator Pitch” challenge.
- Working overtime to produce a last minute request for information (such as a quick presentation on their progress to date or to help with a company proposal that is closely related to their project topic).
- The necessity of time management and a clear focus on their goals and targets.

**Conclude with Deliverables**

At the end of their off-campus seven-week term, the students are required to produce their final deliverables – usually an in-house report for the company, a formal oral presentation at the company office, and their student project document -- the Major Qualifying Project (MQP) report. The MQP report will contain more details relating to the capstone design aspects of their work that are not needed for the in-house company deliverable, such as:

- A clear definition of an open-ended problem – the student team with advice from their advisors will sometimes create a design challenge that is directly related to the project topic.
- A detailed description of the methodology used, including the specifications and standards used and the constraints considered.
- A step-by-step description and presentation of the analysis process used (possibly an iterative process).
- Economic, social and sustainability aspects of the design problem.

**Results and Conclusion**

The Stantec Project Center has been in operation for three years. Details on student projects with examples of their deliverables may be found at the WPI/Stantec Project Center website:

[http://www.wpi.edu/academics/Depts/CEE/stantec.html](http://www.wpi.edu/academics/Depts/CEE/stantec.html)

All three groups involved in this exercise (Stantec advisors, faculty advisors and student groups), have observed the need to make adjustments for these off-campus and remotely advised projects to be successful. For example:

**Stantec Advisors**

- Adjust to an academic calendar that requires significant advance preparation – commit to a project theme six months before the project starts.
- Recognize the difference between an advisor and a supervisor – give the students ample room to self-learn, wait for the teachable moment and maintain close observations throughout the project period with routine progress-report meetings.
• Be available for consultation, but avoid accepting a leadership role with the team.
• Help the students focus on time management and the need to recognize a client’s expectations rather than blindly following pre-established objectives.

Faculty Advisors

• Focus on team building and communication protocols during the pre-term period.
• Maintain a progress report schedule, but also be available to provide advice on a 24/7 basis for technical as well as non-technical situations.
• Require the student groups to follow a clear schedule with target goals.

Student Groups

• Learn how to prepare for meetings, conduct interviews, hold progress meetings, prepare professional level documents and give formal and informal presentations.
• Learn time management skills, teamwork dynamics, and social skills.

In conclusion, these projects are not internships or co-op assignments. They challenge the students to move beyond research and inventory and challenge the advisors to guide the students in the application of the knowledge they have acquired – both in their off-campus experience and in their preceding undergraduate education. This approach meets WPI’s belief that “students should understand how to apply knowledge – not just how to cite facts and theories.” And it meets Stantec’s objectives as well. As Stantec’s boomers start to retire it is important that they find and develop passionate new employees whose value lies not in their factual knowledge but the ability to contribute to multi-disciplined project teams through creative and social skills. Hosting these WPI students is the first step in that process.

References

Going Global @ WPI

A handbook developed by the Interdisciplinary and Global Studies Division at Worcester Polytechnic Institute for students going to the residential project site:

Edmonton Project Center B2009

Frederick Hart, Center Director
Edmonton Project Center

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Interdisciplinary and Global Studies Division
Worcester Polytechnic Institute

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Section 1 – WPI and IGSD Procedures

INTRODUCTION

Congratulations! You are beginning to prepare for one of the most meaningful experiences that you will encounter while at WPI. In order to ensure that you have a successful experience, the Going Global at WPI Handbook has been compiled from a number of sources to provide as much practical information as possible that may be applicable to all project sites. The Handbook was prepared to inform the student who has been accepted to participate in the Global Perspective Program during the 2008/2009 academic year.

Worcester Polytechnic Institute has been practicing innovative, project-based technological education for over 30 years. WPI requires all undergraduates to complete a series of projects, including one in which they examine how science or technology interacts with societal structures and values - the Interactive Qualifying Project. Because of its commitment to a global perspective, the university offers its students opportunities to complete this unique degree requirement at locations around the world. WPI operates more than ten international project programs where students, with resident faculty advisors, live and work full time solving real-world problems for public and private agencies and organizations. WPI sends more engineering and science students overseas for experiential learning than any other U.S. college or university; during the 2009-2010 academic year, approximately 625 WPI students -- including over half of the junior class -- will travel to a global project site to complete one of these interdisciplinary projects.

A successful off-campus experience does not just occur; it requires careful consideration of things you will need to do before you leave, and while at your off-campus site. The Interdisciplinary and Global Studies Division (IGSD) has developed this document to outline these considerations.

For the mutual protection of WPI, the students, and their families, the obligation assumed by each must be carefully defined and understood. You should recognize the fact that you have entered into a contractual agreement with WPI that states the obligations and responsibilities of both the university and yourself. This Handbook was created as the document that should be read carefully and thoroughly to avoid misunderstandings.
The following text is taken from the NAFSA: Association of International Educators’ website. NAFSA is the predominant professional association in the world dealing with international education, and the section of the Association that deals specifically with study abroad currently known as the Education Abroad Knowledge Community. A committee of study abroad professionals (the Interorganizational Task Force on Safety and Responsibility in Study Abroad) developed the following document and is included here for your reference. Please keep in mind that while WPI’s off campus program is unique in its structure, the University is committed to uphold the standards of the profession.

**Responsible Study Abroad: Good Practices for Health and Safety**

**Statement of Purpose**

Because the health and safety of study abroad participants are primary concerns, these statements of good practice have been developed to provide guidance to institutions, participants (including faculty and staff), and parents/guardians/families. These statements are intended to be aspirational in nature. They address issues that merit attention and thoughtful consideration by everyone involved with study abroad. They are intentionally general; they are not intended to account for all the many variations in study abroad programs and actual health, safety and security cases that will inevitably occur. In dealing with any specific situation, those responsible must also rely upon their collective experience and judgment while considering their specific circumstances.

**I. Responsibilities of Program Sponsors**

The term "sponsors" refers to all the entities that together develop, offer, and administer study abroad programs. Sponsors include sending institutions, host institutions, program administrators, and placement organizations. To the extent reasonably possible, program sponsors should consider how these statements of good practice may apply. At the same time, it must be noted that the structure of study abroad programs varies widely. Study abroad is usually a cooperative venture that can involve multiple sponsors. Because the role of an organization in a study abroad program may vary considerably from case to case, it is not possible to specify a division of efforts that will be applicable to all cases. Each entity should apply these statements in ways consistent with its respective role.

In general, practices that relate to obtaining health, safety and security information apply to all parties consistent with their role and involvement in the study abroad program. Much of the basic information is readily available and can be conveyed to participants by distributing it and/or by referring them to, or utilizing materials from, recognized central sources. Statements of good practice that refer to the provision of information and the preparation of participants are intended for parties that advise, refer, nominate, admit, enroll, or place students. Statements of good practice that suggest operating procedures on site apply to entities that are directly involved in the operation of the overseas program.

It is understood that program sponsors that rely heavily on the collaboration of overseas institutions may exercise less direct control over specific program components. In such cases, sponsors are urged to work with their overseas partners to develop plans and procedures for implementing good practices.

The use of letters is provided for ease of reference only and does not imply priority.

Program sponsors should:

A. Conduct periodic assessments of health and safety conditions for their programs, and develop and maintain emergency preparedness processes and a crisis response plan.

B. Provide health and safety information for prospective participants so that they and their parents/guardians/families can make informed decisions concerning preparation, participation and behavior while on the program.

C. Provide information concerning aspects of home campus services and conditions that cannot be replicated at overseas locations.
D. Provide orientation to participants prior to the program and as needed on site, which includes information on safety, health, legal, environmental, political, cultural, and religious conditions in the host country. In addition to dealing with health and safety issues, the orientation should address potential health and safety risks, and appropriate emergency response measures.

E. Consider health and safety issues in evaluating the appropriateness of an individual's participation in a study abroad program.

F. Determining criteria for an individual's removal from an overseas program taking into account participant behavior, health, and safety factors.

G. Require that participants be insured. Either provide health and travel accident (emergency evacuation, repatriation) insurance to participants, or provide information about how to obtain such coverage.

H. Conduct inquiries regarding the potential health, safety and security risks of the local environment of the program, including program-sponsored accommodation, events, excursions and other activities, prior to the program. Monitor possible changes in country conditions. Provide information about changes and advise participants and their parents/guardians/families as needed.

I. Hire vendors and contractors (e.g. travel and tour agents) that have provided reputable services in the country in which the program takes place. Advise such vendors and contractors of the program sponsor's expectations with respect to their role in the health and safety of participants.

J. Conduct appropriate inquiry regarding available medical and professional services. Provide information about these services for participants and their parents/guardians/families, and help participants obtain the services they may need.

K. Develop and provide health and safety training for program directors and staff, including guidelines with respect to intervention and referral that take into account the nature and location of the study abroad program.

L. Develop codes of conduct for their programs; communicate codes of conduct and the consequences of noncompliance to participants. Take appropriate action when aware that participants are in violation.

M. In cases of serious health problems, injury, or other significant health and safety circumstances, maintain good communication among all program sponsors and others who need to know.

N. In the participant screening process, consider factors such as disciplinary history that may impact on the safety of the individual or the group.

O. Provide information for participants and their parents/guardians/families regarding when and where the sponsor's responsibility ends and the range of aspects of participants' overseas experiences that are beyond the sponsor's control.

In particular, program sponsors generally:

A. Cannot guarantee or assure the safety and/or security of participants or eliminate all risks from the study abroad environments.

B. Cannot monitor or control all of the daily personal decisions, choices, and activities of participants.

C. Cannot prevent participants from engaging in illegal, dangerous or unwise activities.
D. Cannot assure that U.S. standards of due process apply in overseas legal proceedings or provide or pay for legal representation for participants.

E. Cannot assume responsibility for actions or for events that are not part of the program, nor for those that are beyond the control of the sponsor and its subcontractors, or for situations that may arise due to the failure of a participant to disclose pertinent information.

F. Cannot assure that home-country cultural values and norms will apply in the host country.

II. Responsibilities of Participants

In study abroad, as in other settings, participants can have a major impact on their own health and safety through the decisions they make before and during their program and by their day-to-day choices and behaviors.

Participants should:

A. Assume responsibility for all the elements necessary for their personal preparation for the program and participate fully in orientations.

B. Read and carefully consider all materials issued by the sponsor that relate to safety, health, legal, environmental, political, cultural, and religious conditions in the host country(ies).

C. Conduct their own research on the country(ies) they plan to visit with particular emphasis on health and safety concerns, as well as the social, cultural, and political situations.

D. Consider their physical and mental health, and other personal circumstances when applying for or accepting a place in a program, and make available to the sponsor accurate and complete physical and mental health information and any other personal data that is necessary in planning for a safe and healthy study abroad experience.

E. Obtain and maintain appropriate insurance coverage and abide by any conditions imposed by the carriers.

F. Inform parents/guardians/families and any others who may need to know about their participation in the study abroad program, provide them with emergency contact information, and keep them informed of their whereabouts and activities.

G. Understand and comply with the terms of participation, codes of conduct, and emergency procedures of the program.

H. Be aware of local conditions and customs that may present health or safety risks when making daily choices and decisions. Promptly express any health or safety concerns to the program staff or other appropriate individuals before and/or during the program.

I. Accept responsibility for their own decisions and actions.

J. Obey host-country laws.

K. Behave in a manner that is respectful of the rights and well being of others, and encourage others to behave in a similar manner.

L. Avoid illegal drugs and excessive or irresponsible consumption of alcohol.

M. Follow the program policies for keeping program staff informed of their whereabouts and well being.
N. Become familiar with the procedures for obtaining emergency health and legal system services in the host county.

III. Recommendations to Parents/Guardians/Families

In study abroad, as in other settings, parents, guardians, and families can play an important role in the health and safety of participants by helping them make decisions and by influencing their behavior overseas.

Parents/guardians/families should:

A. Be informed about and involved in the decision of the participant to enroll in a particular program.

B. Obtain and carefully evaluate participant program materials, as well as related health, safety and security information.

C. Discuss with the participant any of his/her travel plans and activities that may be independent of the study abroad program.

D. Engage the participant in a thorough discussion of safety and behavior issues, insurance needs, and emergency procedures related to living abroad.

E. Be responsive to requests from the program sponsor for information regarding the participant.

F. Keep in touch with the participant.

G. Be aware that the participant rather than the program may most appropriately provide some information.

NAFSA: Association of International Education
Responsible Study Abroad: Good Practice for Health and Safety Guidelines, Revised November 8, 2002

http://www.nafsa.org/knowledge_community_network.sec/education_abroad_1/developing_and_managing/practice_resources_36/guidelines_for_health
**MANDATORY PAPERWORK**

The following documents must be submitted to the IGSD office by the stated deadline before you leave WPI for your off-campus project experience. If any forms are missing, you will be in jeopardy of not being allowed to participate at off-campus programs.

**Paperwork Deadline -- All paperwork for Edmonton must be in the IGSD Office by Tuesday, October 6, 2009 before 3:00 p.m.**

---

**Participant Statement of Agreement**

Once accepted to the Global Perspective Program at WPI, every student is required to submit to the IGSD along with his or her housing deposit a signed and dated —Participant Statement of Agreement. The text of that document is included below for your convenient referral. Of course, you may request a photocopy of your signed —Participant Statement of Agreement at any time.

I understand that my participation in the WPI Global Perspective Program is subject to my agreement to accept and abide by the following conditions of participation:

**A. Financial Responsibility**

1) I understand that my deposit of $400 is used to secure my place in the program and will be credited toward my housing cost.

2) I understand that charges for any damages to housing, WPI property on site, the property of our host institutions, or project sponsors will be charged to my WPI account. When responsibility for damages to housing cannot be assigned to an individual student, all students in the housing unit will be charged an equal share of the cost. I also realize that an official hold will be placed on my records until all payment responsibilities are satisfied.

3) I agree to pay all housing charges as requested. The accounting office normally bills housing costs at program sites at the time of the usual billing for Spring, Fall, and Summer terms.

**B. Withdrawal, Cancellation, or Dismissal**

1) I understand that the $400 acceptance deposit is fully refundable up to 120 business days before the beginning of the program. Notice of withdrawal must be made in writing to the Interdisciplinary and Global Studies Division. Withdrawals after this time are subject to forfeiture of the entire deposit, plus any unrecoverable portion of the housing costs or other program expenses advanced on my behalf.

2) WPI makes every effort to deliver every program offered. However, many circumstances beyond our control could affect the welfare and safety of our participants. WPI, therefore, reserves the right to cancel a program in the event of changes that adversely affect our ability to deliver a quality academic program in which we can reasonably safeguard the health, safety, and well-being of all participants. In the event of cancellation by WPI, all deposits, tuition, and housing costs will be fully refunded.

3) Students who are dismissed from a program for any reason will receive no refund of any costs involved and are subject to charges for any unrecoverable housing costs or program expenses advanced on their behalf.

**C. Behavioral Responsibilities**

1) I understand that all policies governing acceptable behavior as printed in The Policies section of The Campus Planner & Resource Guide apply to me during my participation at an off-campus program site. Failure to abide by these policies, either before or during my participation in an off-campus program, can result in disciplinary action, up to and including my immediate dismissal from the program. I recognize that the authority for adjudicating alleged violations of the WPI Code of Conduct while at an off-campus program site lies with the on-site WPI representative in accordance with basic due process.

2) I further understand that as a WPI student at an off-campus program site, I represent my institution and my country and will behave as an ambassador for both. I understand that grounds for dismissal may also be found in behavior disruptive to the group as a whole, or offensive within the host culture: disruptive sexual behavior, or behavior deemed offensive to the host culture; or disruptive, violent, or destructive behavior in student housing.

3) I understand that WPI must take steps to ensure that no offensive, disruptive or potentially dangerous conduct occurs while WPI students and faculty are abroad. Accordingly, WPI reserves the right to dismiss a student from the program on the basis of any observed conduct or behavior which causes WPI concern for the safety and well-being
of students or others. The Dean of Interdisciplinary and Global Studies shall have the authority to make the final decision on dismissal from the program.

D. **Academic Responsibilities**
1) I understand that my participation in this program is subject to successful completion of all required preparation classes. I agree to attend all required orientation and re-entry meetings.

2) I understand that if I am placed on academic probation, I am no longer eligible to participate. The withdrawal refund policy stated above will apply.

3) WPI reserves the right to withdraw acceptance to students who are subsequently placed on academic warning. The withdrawal refund policy stated above will apply.

E. **Medical Issues**
1) I understand that there are certain risks inherent in travel to an off-campus program site and WPI cannot assume responsibility for all of my activities or medical needs. I understand that it is my responsibility to carry medical insurance that is valid at the off-campus site for the length of my stay.

2) I accept all financial responsibility for any medical treatment I receive while at the program site and understand that to obtain medical care abroad it is usually necessary to pay when the care is administered and seek reimbursement from my insurance company when I return home.

F. **Legal Issues**
1) I understand that as a non-citizen in a foreign country, I will be subject to the laws of that country. The use or possession of illegal drugs or other substances in violation of the laws of the host country or The Policies section of *The Campus Planner & Resource Guide*, before or during my participation in the program, can result in disciplinary action, up to and including my immediate dismissal from the program and legal action under the laws of the Commonwealth of Massachusetts and/or the laws of the host country.

G. **Travel Issues**
1) I understand that I am responsible for making my own travel arrangements and for arriving at the program site on the designated arrival date and remaining until the official departure date.

2) I understand that while WPI encourages students to travel during their free time, the university can take no responsibility for my safety during independent travel. I further understand that I must inform the faculty-in-residence of my travel plans.

H. **Federal Compliance Issues**
1) I understand there are Federal regulations regarding the export of information to foreign countries or foreign citizens, with which all of us at WPI must comply. WPI's emphasis on engineering programs makes us particularly sensitive to these regulations. If I take a laptop computer (or other type of computer digital storage device, I hereby assure WPI that I will not have any restricted information on that device as such action may be considered an export.

I have read, understand, and agree to abide by the above stated conditions of participation.

<table>
<thead>
<tr>
<th>Participant Signature</th>
<th>date</th>
<th>site</th>
<th>term</th>
</tr>
</thead>
</table>

Printed Name | student number | date of birth*  
*If participant is under 18 years of age, both parents and/or legal guardian must also read and sign this form.*

I am the parent or legal guardian of the above Participant, have read the foregoing Participant Statement of Agreement Form (including such parts as may subject me to personal financial responsibility), and will be legally responsible for the obligations and acts of the Participant as described in this Participant Statement of Agreement Form, and agree, for myself and for the participant, to be bound by its terms.

X  
Signature of Parent / Guardian  
Date

X  
Signature of Parent / Guardian  
Date
Travel Information Form (Appendix A)

The IGSD must have completed Travel Form from each student on file before the student leaves for their site. The office keeps a copy of this itinerary and we send a copy with the faculty advisor. By doing this, the IGSD staff, the advisor and the local coordinator knows when and where every student will arrive and will alert them if a problem arises.

Any students traveling outside the United States to a WPI project site must supply the IGSD with a scanned copy of the information pages of their passport. Electronic copies will be sent with the faculty advisor and kept on file in the IGSD. If a passport is stolen or lost while outside the U.S., having copies of this document will greatly facilitate having new travel documents issued.

Students should understand that they are responsible for making their own travel arrangements and for arriving at the program site on the designated arrival date and remaining until the official departure date. If you are traveling by air, you must have confirmed reservations. Flying stand-by is not acceptable.

Students and their families should also understand that while WPI encourages students to travel during their free time, the university can take no responsibility for the student’s safety during independent travel. The student must inform the faculty-in-residence of any travel plans.

Students may not take vacation days off from their project work, even if they have the permission of their project mentor. If they have an urgent family or academic or job related need to travel away from the project site on a project work day, they should consult with the faculty member in residence before making any travel plans.

Health Update and Records Release Form (Appendix B)

The IGSD must have a completed Health Update and Records Release Form on file for each student before the student leaves for her site. The IGSD keeps a copy and sends a copy with the faculty advisor in case of an emergency. The student should list any medical conditions that could affect the student while off-campus (i.e. epilepsy, diabetes, depressive episodes, etc.) Also, the student must list any changes in their health not noted on medical records on file with WPI Health Services. Medical allergies must be listed, as well as prescription medications.

The IGSD strongly recommends that every student who plans to travel outside of the United States should read closely all information put forward by the Center for Disease Control specific to the geographic area where they will be going. This information is included in this handbook.

When traveling abroad it is a good idea to take a supply of your prescription medications sufficient to last for the entire length of the trip. Prescription medicines should always be kept in the original containers with the prescription label intact to avoid problems with customs officials. It is also important to take along a copy of the prescription from your physician, clearly written, in generic terms, and with an indication of the condition being treated.

Two people need be listed as emergency contacts. These contacts should be people empowered to make a medical or legal decision on behalf of the participant (i.e., parent, guardian, living adult relative). Contact information for each must also be provided to the IGSD on this form: name, relationship, address, phone (home and work), and email.

Participants and their families should understand that there are certain risks inherent in travel to an off-campus program site and WPI cannot assume responsibility for every activity or medical need.
It is the student’s responsibility to carry medical insurance that is valid at the off-campus site for the length of the stay. Students must accept all financial responsibility for any medical treatment received while at the program site. Students should understand that to obtain medical care abroad, it is usually necessary to pay when the care is administered and they will have to seek reimbursement from their insurance company when they return home.

All students traveling off-campus to participate in a WPI program are required to carry medical insurance that is valid at the program site for the entire length of the program. The IGSD must have the name of your insurance provider and your subscription number. It is the responsibility of the student to make sure that they are covered for the entire length of the program while they are off-campus.
Voluntary Acknowledgement Form

All participants are required to sign a Voluntary Acknowledgement Form that is kept on file in the IGSD. The text of the form is below for your convenient referral. We hope that by asking participants to read and sign such a form that we remind them of the nature of their participation and the responsibilities which are assumed by the individuals.

ACKNOWLEDGEMENT and RELEASE

I acknowledge that I am voluntarily participating in the ___________________________(the Program), which is being offered by Worcester Polytechnic Institute (WPI). I further acknowledge that WPI has provided me with adequate information about the Program, both verbally and through written materials, and that I have read and understand such information. I agree to comply with any immunization or medical treatment necessary to participate in this program. I also acknowledge that any laptop computer (or other form of computer or digital storage device) that I may take abroad cannot contain any restricted information as such action may be considered an export subject to Federal control and regulation.

Assumption of Risk and Release of Claims. Knowing the risks described, and in consideration of being permitted to participate in the Program, I agree, on behalf of my family, heirs, and personal representative(s), to assume all the risks and responsibilities surrounding my participation in the Program. To the maximum extent permitted by law, I release and indemnify Worcester Polytechnic Institute, and its officers, employees and agents, from and against any present or future claim, loss or liability for injury to person or property which I may suffer, or for which I may be liable to any other person, during my participation in the Program (including periods in transit to or from any site in country where the Program is being conducted).

I HAVE CAREFULLY READ THIS AGREEMENT AND FULLY UNDERSTAND ITS CONTENTS.

Participant Signature ____________________________ date ________

Printed Name ____________________________ date of birth* ________

*If participant is under 18 years of age, both parents and/or legal guardians must also read and sign this form.

I am the parent or legal guardian of the above Participant, have read the foregoing Acknowledgement and Release Form (including such parts as may subject me to personal financial responsibility), and will be legally responsible for the obligations and acts of the Participant as described in this Acknowledgement and Release Form, and agree, for myself and for the Participant, to be bound by its terms.

X
Signature of Parent / Guardian ____________________________ Date ________

X
Signature of Parent / Guardian
Scan of Passport

You are required to bring your passport to the IGSD office so that staff can scan a copy of the face and information pages. IGSD keeps this on file.

International Student Identity Cards (ISIC)

All WPI students completing course requirements abroad are required to get the ISIC. As you have been charged the $24.00 cost of the card, it makes the most sense to get yours from the IGSD. If you choose to purchase a card elsewhere you will forfeit the $24.00. In some countries, the student discount network is highly developed, and an ISIC will entitle students to reduced entrance fees at museums and theaters, special rail or bus passes, and even discounts at hotels and shops. While it cannot be guaranteed that you'll get discounts wherever you go, the ISIC is the most accepted card for international access to all student discounts that are available.

With the ISIC, you gain access to a 24-hour, toll free help line that can provide aid in the case of a medical, financial or legal emergency while abroad. You can call the ISIC Help Line from the United States at (877-370-4742). Outside of the United States, call collect 715-342-4104. The call is free, but be prepared to provide your card number to the ISIC Help Line.

The most important reason for the ISIC requirement is the additional insurance coverage that you get. The ISIC provides a basic sickness and accident insurance policy to students while traveling outside the United States. ISICs also provide students with emergency evacuation insurance, if due to injury or sickness, a legally licensed physician certifies the severity of your condition is such that you must be evacuated for medical treatment. In addition, cardholders are eligible to have expenses covered for the repatriation of remains in the unlikely event of death while abroad. (For more specific coverage information, contact American Home Assurance Company 70 Pine St. New York, New York 10270).

Again, the cost of this card is built into the expenses associated with going off-campus and does not require additional fees to be charged to the student. However, students must supply the IGSD with two photos in order to process the card. These photos can be taken at the IGSD Office.

You are required to come to the IGSD, located in the Project Center, to fill out an application form for the ISIC and turn in your photos (extra passport photos will suffice as well, but please keep in mind the need to carry two other passport photos with you when traveling). IGSD staff will process your card, which will be given to you when all mandatory paperwork mentioned previously has been completed and turned in to the IGSD. If you need the number from your ISIC to book your flight, a photocopy of your card can be provided to you at your request. For more specific information about discounts, go to www.isic.org.

ATC Laptop Form (Appendix C)

WPI will provide one laptop per team if you request it. You do not have to use a WPI laptop – you are welcome to take your own. If you do, however choose to sign out a WPI laptop, you will need to complete the form and turn it in to the IGSD with the rest of your mandatory paperwork.
Informal Hearing Procedure at Off-Campus Residential Program Sites

Students at off-campus residential program sites accused of violating the WPI code of conduct or any other WPI policy as outlined in the annual Campus Planner shall be accorded an informal on-site hearing before a WPI representative designated by the dean of Interdisciplinary and Global Studies Division. The following guidelines will be applicable.

(a) Students will be informed of the complaint pending and the time, date and location of the informal hearing, in writing, at least two (2) days prior to the hearing. This notice should include a full description of the incident, names of witnesses, if any, and a reference to the section(s) of the campus code allegedly violated.

(b) The informal hearing shall be conversational in nature and non adversarial.

(c) Before the hearing, the student shall be given the opportunity to consult with an on-site advisor of their choice or a member of the WPI community.

(d) During the hearing, the WPI representative shall elaborate on the nature of the complaint and present any evidence or witnesses in support of that complaint.

(e) The accused student shall have an opportunity to respond to the complaint and present any evidence or witnesses in response to the complaint.

(f) The WPI representative will make a determination of the student's responsibility for the complaint based on the outcome of the informal hearing.

(g) If the student is found responsible, the WPI representative must contact the dean of students or her/his designee to review the student's past record, if any, before a sanction is determined. The WPI representative must then consult with the Dean of Students Office and the Director of global operations in Interdisciplinary and Global Studies Division to determine an appropriate sanction for the offense.

(h) All decisions shall be final and not subject to appeal on site. The decision may be appealed to the Dean of Interdisciplinary Studies Division once the student has returned to the WPI campus. Appeals may be submitted in writing to the Dean of Interdisciplinary Studies Division within five (5) days of the start of classes of the term following the off campus project experience. The appeal must be specific and contain a full description of the basis for the appeal. A given case may be appealed only once. Grounds for an appeal must be based on one or more of the following criteria:

   a. Failure to follow the procedures outlined in the Campus Planner and Resource Guide;
   b. Inappropriate gravity of the sanction in relationship to the offense;
   c. That no reasonable person could conclude, on the basis of the evidence presented, that the accused was responsible.

The appeal will not be reviewed until after the start of the term following the off campus project experience when all parties involved have returned to the WPI campus.

(i) If the on-site WPI representative determines that continued presence at the project center by the student would constitute a danger to the safety of persons or property on the premises of the project center, a recommendation for interim suspension may be made to the vice president for student affairs.

Note: WPI's Academic Honesty Policy and the procedures described therein also apply to the off campus residential programs. The WPI representative must communicate with the dean of Interdisciplinary and Global Studies Division and Student Life Office before taking action.
WPI Housing

If you live in a WPI residence hall, it is your responsibility to notify Residential Services of your intended absence.

Mail Services

All students going off-campus must go to Central Mail to fill out the appropriate card to have their mailboxes closed and their mail forwarded. Failure to do so will result in mail staying in the student’s mailbox for the entire term. All students must now be responsible for their own mailbox and mail by signing a forwarding card at Central Mail.

Protocol for PCs for Off-Campus Project Centers

Students who participate in the Global Perspective Program are offered the opportunity to borrow laptop personal computers from WPI. This is not an entitlement to students, but rather a privilege extended to students. It is expected that the following protocol will be followed and the proper responsibility will be assumed by the students taking advantage of this opportunity. WPI does not have an unlimited supply of laptop computers to loan to students. If student teams are unable or unwilling to comply with the dates specified by the Academic Technology Center (ATC), the ATC reserves the right to refuse to accommodate that request. One PC per project team for each site as available:

After you have turned in the completed ATC Team form to the IGSD, at least one member of your group (although we suggest the entire group so that everyone takes equal responsibility for the equipment) is required to go to the ATC and reserve a laptop BEFORE pick-up on the specified date.

Procedure

1. Each team will fill out an ATC Team Form (Appendix C). Kelly Donahue (from the IGSD) will send approved names to ATC. Every team member must meet all IGSD paperwork deadlines before names are sent to the ATC.
2. Person(s) responsible for PC will be required to register at the ATC and sign a statement accepting responsibility for the PC.
3. Person(s) responsible for PC should have the tightest travel schedule. Arrangements can be made for one person to pick up the PC and another member of the team to return the PC but, BOTH people must register when the reservation is made with the ATC.
4. It is strongly recommended that everyone in the group sign the ATC’s reservation form. The ATC will hold only signing parties financially responsible for damage beyond normal wear and tear and/or any fees incurred.

Reservations

1. Make your reservation early for your PC. You must go to the ATC to make your reservation with your WPI ID card. At the time of reservation you must be specific about the dates and times of pick-up and return of the equipment and about your hardware requirements. Be as specific as possible about what you will be using the PC for: (e.g. word processing, spreadsheets, data analysis, etc.) PCs are reserved on a first-come, first-served basis. Avoid last minute changes as they may not be able to be accommodated.
2. If two people are responsible (one for pick up, one for return) BOTH must go to the ATC to register before leaving campus. If arrangements have been made for a faculty member to return the PC, then the faculty member must send confirming email to Mary Beth Harrity (mharrity@wpi.edu) before the PC will be released.
3. Modems, ethernet cards and other miscellaneous hardware are in limited supply and must be requested at the time the reservation for the PC is made.
4. Upon request, the ATC can provide external drives that can be attached to the laptop.
5. Pick-up and return deadlines will be strictly enforced. If the laptop computer is not returned to the ATC on the agreed upon date, your group will be charged a $50 per business day late fee.

Software
1. All PCs will be loaded with Windows, MS Office, Explorer and communications software. The ATC does not provide or load software other than this.
2. If students load their own software it must be removed prior to returning the PC to the ATC.
3. If you significantly alter the original configuration of the laptop (e.g. install a different operating system), your group will be charged a $50 software re-installation fee.

Picking up the PC
1. You must have your WPI ID card in order to pick up the PC assigned to you.

Acceptable Use Policy Regarding Computers (WPI laptops, sponsor PC's, internet use)

At a minimum, you must adhere to the WPI Acceptable Use Policy (http://www.WPI.EDU/Pubs/Policies/) whether using WPI computer resources or your housing provider or sponsor’s resources. Your housing provider or sponsor may have more restrictive computer and web use policies and those must be followed. It is your responsibility to determine what your housing provider or sponsor’s policy is and to comply with it. Using a housing provider or sponsor’s network(s) or computer(s) for recreational use (defined as non-project related use – on or off the web) is not permitted. Violators will be subject to disciplinary actions.
General Policies and Important Things to Remember

- There can be no overnight guests in any accommodations acquired and provided by WPI for use by the Project Center students.

- Charges for any damages to housing, WPI property on site, the property of our host institutions, or project sponsors will be charged to your WPI account. When responsibility for damages to housing cannot be assigned to an individual student, all students in the housing unit will be charged an equal share of the cost. An official hold will be placed on all records until all payment responsibilities are satisfied.

- If you are dismissed from a program for any reason, you will not receive a refund of any costs involved and will be subject to charges for any unrecoverable housing costs or program expenses advanced on your behalf.

- All policies governing acceptable behavior as printed in The Policies section of The Campus Planner & Resource Guide apply to participants at an off-campus program site. The authority for adjudicating alleged violations of the WPI Code of Conduct while at an off-campus program site lies with the on-site WPI representative in accordance with basic due process.

- You must always keep the resident faculty advisors informed of your whereabouts. If you plan to travel during the term, you must give your advisor a written itinerary.

- The IGSD will notify your parents if you fail to return from a weekend excursion at the predetermined time. If you are delayed you MUST contact your resident faculty advisor to inform them that you are safe.

- As a WPI student at an off-campus program site, you represent your institution and your country and will behave as an ambassador for both. Grounds for dismissal may also be found in behavior disruptive to the group as a whole, or offensive to the host culture: disruptive sexual behavior, or disruptive, violent, or destructive behavior in student housing.

- You may not take vacation days off from your project work, even if you have the permission of your project mentor. If you have an urgent family or academic or job related need to travel away from the project site on a project work day, consult with the faculty member in residence before making any travel plans.

Violations of any of these policies can result in disciplinary action up to and including immediate dismissal from the program.
Travel Documents and Competencies

Passports

Who needs a passport?
A U.S. citizen needs a passport to depart or enter the United States and to depart and enter most foreign countries. U.S. Immigration requires you to prove your U.S. citizenship and identity when you reenter the United States.

If you are not a U.S citizen, contact the embassy or consulate of the country you are planning to travel to, as well as the U.S. Embassy in order to receive specific entry instructions. International students should consult with Mr. Tom Thomsen, Director of the International Students and Scholars Office, about these issues. His contact information is listed under the heading WPI Offices.

Beware of a passport that is about to expire. Certain countries will not permit you to enter and will not place a visa in your passport if the passport is valid for less 6 months. If your passport is expiring in less than the 6 months, you will need to get a new one. If you return to the United States with an expired passport, you are subject to a passport waiver fee of $100, payable to U.S. Immigration at the port of entry.

It is your responsibility to acquire your passport. The IGSD does not administer this process for students.

How to get your passport

1. Go to Prime Color Photo located at 1094 Pleasant Street to have your passport photos taken. Show your WPI ID to get the special rate. You can also get passport photos taken at the U.S. Post Office, or other local stores such as CVS.
2. Pick up a passport application form from the U.S. Post Office, Prime Color Photo or download from: http://travel.state.gov/passport/passport_1738.html
3. Turn in all required documentation to the nearest federal post office with the appropriate fee.
For Immediate Release
April 2, 2002
STATEMENT BY PHILIP T. REEKER, DEPUTY SPOKESMAN
U.S. Passports Will No Longer be Issued Abroad

All passports, except those required for urgent travel, will be issued in the United States using the new more secure photo-digitized imaging system.

Effective April 8, 2002, American citizens residing or traveling abroad, who require issuance of a U.S. passport, will be issued the latest, state-of-the-art passport. It incorporates a digitized image with other enhanced security features. Because this technology is not available at U.S. embassies and consulates, overseas passport issuance is being transferred to the National Passport Processing Center in Portsmouth, New Hampshire.

Travel documents in the post-September 11 world have become even more important. The new passport has many features that make it one of the most secure travel documents produced anywhere in the world. Getting these more secure passports into circulation will help minimize the misuse of American passports by criminals, terrorists, and others. This new procedure will increase processing time at U.S. embassies and consulates, but the Department is committed to ensuring that American citizens receive secure documents in a timely manner. American citizens overseas are encouraged to apply early for renewal of expiring passports.

U.S. embassies and consulates will continue to issue passports that are needed for urgent travel. However, such passports will be limited in validity, and cannot be extended. Bearers will be required to exchange, at no additional cost, their limited-validity passport for a full-validity digitized passport upon completion of their urgent travel.

Information on applying for a U.S. passport, passport application forms and requirements, and other travel-related information can be accessed through the Department of State’s web site at: http://travel.state.gov.

Visas
A visa is an endorsement or stamp placed in your passport by a foreign government that permits you to visit that country for a specified purpose and a limited time. You should obtain all necessary visas before you leave the United States, because you will not be able to obtain visas for some countries once you have departed. Apply directly to the embassy or nearest consulate of each country you plan to visit. Passport agencies cannot help you obtain visas.

If you are doing your project in Thailand or Namibia, your faculty advisors and the IGSD will help you obtain your non-immigrant visas. In order to take advantage of this, you must be prepared to give the IGSD your passport, a completed visa application (available in the IGSD office) and a passport picture, by the date that your advisors determine. The IGSD will send all documentation with one cover letter to the appropriate embassy to expedite the visa process for your group. The single entry visa fee of has been built into your housing charge.

If you are not a U.S. citizen, it is your responsibility to determine what other documentation you will need to file to obtain your visa.
How to Take Money

You should take a sufficient amount of living/spending money with you. The IGSD recommends the following modes of carrying money.

Travelers Checks
Rather than carrying large amounts of cash, it is always safer to take most of your money in travelers’ checks. Remember to record the serial number, denomination, and the date and location of the issuing bank or agency. Keep this information in a safe and separate place. In case your checks are lost or stolen, you can get replacements quickly with this information.

Credit Cards
Some credit cards can be used worldwide, even for cash advances. However, be sure to monitor your charges carefully, so as not to exceed your limit -- do not forget to account for the exchange rate! Leave all unnecessary cards at home. Record the numbers and expiration dates for the cards you take in a separate place. Always report the loss or theft of your credit cards immediately to the issuing companies and notify the local police.

ATM info:
Making withdrawals from an ATM is generally considered to be the easiest and least expensive way of accessing money while abroad. The biggest advantage is that regardless of the size of your withdrawal, you will receive the wholesale exchange rate which banks use. ATM networks like the Global ATM Alliance, Cirrus and PLUS are used widely around the globe, although you should be sure to verify that your network operates in the country to which you're going. The following websites provide links to ATM locator services for each network:

http://visa.via.infonow.net/locator/global/jsp/SearchPage.jsp
http://www.scotiabank.com/cda/content/0,1608,CID8040_LIDen,00.html

Before you leave, you should contact your bank to let them know where you will be and for how long. Many banks view activity such as withdrawals in another country as an alert to possible fraudulent activity on your account. Telling them ahead of time, may prevent your accounts from being frozen -- a massive inconvenience when you're abroad.

Things to consider when using ATMs abroad include the following:
1. Be sure you know the numeric equivalent of your PIN if it contains letters as well as numbers. ATMs abroad may only provide numbers.
2. Some ATMs (especially in Europe) do not accept PINs longer than 4 numbers. You may wish to contact your bank to change your PIN if it is longer than four digits.

There are of course fees associated with using most ATMs, and some of these can be significantly higher than the fees you are used to paying in the U.S. You should check with your bank (be sure to ask if they assess extra fees for international ATM use), and plan for these extra expenses in your budget.
Finally, be sure to keep your ATM card and your money in a safe place. When withdrawing cash from an ATM be sure to do so in a well lighted, safe location so that you decrease your profile as a potential target for theft.

Source:  www.independenttraveler.com

Foreign Currency

Before departing, it is recommended that you purchase some foreign currency to use for buses, taxis, food, phones or tips when you first arrive. You can purchase several currencies at the airport, but be advised that they only carry major currencies and that exchange windows may be closed depending upon your time of departure. You may be able to purchase foreign currency at one of your local banks. Do not change all of the money you plan to take while still in the U.S. The exchange rate is always better in the host country.
Section 2 - Health & Safety

Safety Policies

When traveling to an off-campus project site, there are a number of precautions you should follow in order to travel safely:

• Do not leave your bags or belongings unattended at any time. Security in airports and train stations are instructed to remove or destroy any unattended baggage. Do not agree to carry or look after packages or suitcases for individuals you do not know well. If someone approaches you to make such a request, tell security immediately. Make sure that no one puts anything in your luggage without your knowledge. Take all questions from airport personnel seriously and do not make jokes in response to security questions.

• Safeguard your passport! Your passport is the most valuable document you will carry abroad. It is your best form of identification and confirms your citizenship. You must guard it carefully. Do not lend it to anyone or use it as collateral for a loan of any sort. You will need it when you check into hotels, embassies or consulates, or when cashing travelers’ checks. Some countries require that you carry it with you at all times as a means of identification. When you carry your passport, hide it securely on your person. Do not leave it in a handbag, book-bag, backpack or in an exposed pocket.

• Never keep all of your documents and money in one place or suitcase. You should make a list of all of your important numbers - your passport information as well as credit cards, travelers’ checks and airline ticket numbers. Leave a copy at home, and carry a copy with you, separate from your valuables.

• Always keep the resident faculty advisors informed of your whereabouts. If you plan to travel during the term, you must give your advisor an itinerary in writing. All student need to be accounted for every weekend whether you are traveling or not, see Appendix D.

• The IGSD will notify the parents of students who fail to return from a weekend excursion at the predetermined time. If you are delayed you MUST contact your resident faculty advisor to inform them that you are safe.

• Have sufficient funds or a credit card on hand to purchase emergency items such as train or airline tickets.

• Always be careful about traveling alone.

• All WPI students who are participating in the Edmonton Project Center B09 Project Program are expected to behave in a manner so as to not put themselves at risk.

• All students have an obligation to look out for each other and themselves. This means that if one student observes another engaging in risky behavior, that student should report the behavior to either of the faculty advisors. The faculty advisor must then address the issue with the student at risk. Repeated behavior identified as risky will be cause to be sent home.

• Be as inconspicuous in dress and demeanor as possible. If the host country nationals do not wear baseball caps and sneakers, you will stand out as a foreigner if you do.

• Do not flash money or documents in public places. Be discreet in displaying your passport.
AVOIDING TRAVEL RISKS

Prepared By:
William L. Granahan CIC,LIA,CMC, Senior Consultant
J.H. Albert International Insurance Advisors, Inc.
Two Chestnut Place
72 River Park
Needham Heights, MA 02494-2631

Planning and Preparing:

Do not display provocative luggage tags, overly patriotic displays or any other indications that you are from the United States;

Do not pack anything that could be construed as a weapon, including knives, nail files, razors or other sharp instruments;

Arrive at the airport at least three hours in advance of your flight.

Air and Ground Travel:

Dress casual and look like a traveler; do not dress like a "flamboyant US patriot;"

Spend little time in foreign airports or public transportation areas that carry a high risk of or invite terrorist attacks;

Avoid air, rail and local ground carriers from countries where terrorist groups are based or have grievances;

Avoid flights or trains with intermediate stops, especially stops in hostile countries, which would allow terrorists to board;

In the Country:

Avoid countries, areas of countries and regions, even for leisure travel on weekends, that are hostile or likely to be hostile to Americans;

Study and understand the customs and political environment of the country(s) you are visiting;
Be prudent in your choice of eating and drinking establishments;
Avoid political discussions, confrontation and arguments;
Do not reveal personal information to casual acquaintances;
Beware of overly friendly or flirtatious persons;
Always travel in groups of two or more people;
Should you find yourself present during a coup, uprising or riot, remain in a safe harbor, such as your hotel or residence, that is not apt to be a military target;

Carry the phone number and address of the American Embassy and local police – and a cell phone if possible;

Return to your apartment or living quarters at a reasonable, early hour every night.
Safety Tips from the U.S. Department of State

Crime in many parts of the world seems to be increasing.

Visitors should take common sense precautions:

• Safety begins when you pack. Leave expensive jewelry behind. Dress conservatively; a flashy wardrobe or one that is too casual can mark you as a tourist. Use travelers’ checks, not cash. Leave photocopies of your passport personal information page and your airline tickets with someone at home and carry an extra set with you.

• Use a money belt or a concealed money pouch for passports, cash and other valuables.

• In a car, keep doors locked, windows rolled up and valuables out of sight. A common trick is for a thief to reach through a car window and grab a watch from a persons’ wrist or a purse or package from the seat while you are driving slowly or stopped in traffic.

• When you leave your car, try to find a guarded parking lot. Lock the car and keep valuables out of sight.

• When walking, avoid marginal areas of cities, dark alleys and crowds. Do not stop if you are approached on the street by strangers, including street vendors and beggars. Be aware that women and small children, as well as men, can be pickpockets or purse-snatchers. Keep your billfold in an inner front pocket, carry your purse tucked securely under your arm, and wear the shoulder-strap of your camera or bag across your chest. To guard against thieves on motorcycles, walk away from the curb, carrying your purse away from the street.

• Use official taxi stands rather than cruising taxis. Illegal taxis can be decoys for robbers.

• Whenever possible, do not travel alone. If you travel in isolated areas, go with a group or a reputable guide.

• Avoid travel at night.

• Money exchangers on the street pass off counterfeit U.S. dollars and local currency. Credit card fraud is growing.

• Do not take valuables to the mountains or on excursions.

Any U.S. citizen who is criminally assaulted should report the incident to the local police and to the nearest U.S. embassy or consulate.

The U.S. department of State has produced a website specifically for students going abroad. This site provides student specific travel tips and advice, and we strongly encourage you to visit it: [www.studentsabroad.state.gov](http://www.studentsabroad.state.gov).
Drugs and the Legal System

When you are in a foreign country, you are subject to its laws. Learn about local laws and regulations, preferably before you arrive on site, and obey them. Deal only with authorized outlets when exchanging money or buying items such as airline tickets and travelers checks. Adhere strictly to the local laws because the penalties you risk are severe.

About 3,000 Americans are arrested overseas each year. Of these, approximately one-third are held on drug-related charges. Despite repeated warnings, drug arrests and convictions are still a common occurrence. Many countries have stiff penalties for drug violations and strictly enforce drug laws. You are subject to foreign, not U.S. laws while overseas, and you will find, if arrested, that:

- because you are subject to local laws abroad, there is very little that a U.S. consul can do for you if you encounter legal difficulties
- few countries provide jury trial
- most countries do not accept bail
- prisons may lack even minimal comforts: bed, toilet, wash basin
- officials may not speak English
- nutrition is often inadequate
- physical abuse, confiscation of personal property and inhumane treatment are possible

In other words, it is not worth imprisonment or extradition to break local laws. Be mature. Remember that laws are established for reasons (and you don’t need to agree with those reasons), and that you are a guest, and should behave as such.
Health Issues: HIV and AIDS information

Acquired immunodeficiency syndrome (AIDS) is a severe, often life-threatening, illness caused by the human immunodeficiency virus (HIV). The incubation period for AIDS is very long and variable, ranging from a few months to many years. Some individuals infected with HIV have remained asymptomatic for more than a decade. Currently, there is no vaccine to protect against infection with HIV. Although there is no cure for AIDS, treatments for HIV infection and prophylaxis for many opportunistic diseases that characterize AIDS are available.

The universal precaution to prevent infection of either AIDS and/or HIV is to assume that everyone you meet has these diseases. While this may seem extreme, there is no way to judge from looking at someone whether or not they have been exposed to these illnesses or if, in fact, they are infected.

HIV infection and AIDS have been reported worldwide. The number of persons infected with HIV is estimated by WHO to be approaching the range of 18 million worldwide. Because HIV infection and AIDS are globally distributed, the risk to international travelers is determined less by their geographic destination than by their sexual and drug using behaviors.

Transmission and Prevention Information

The global epidemic of HIV infection and AIDS has raised several issues regarding HIV infection and international travel. The first is the need of information for international travelers regarding HIV transmission and how HIV infection can be prevented.

HIV infection is preventable. HIV is transmitted through sexual intercourse, needle or syringe sharing, by medical use of blood or blood components, and perinatally from an infected woman to her baby. HIV is not transmitted through casual contact; air, food, or water routes; contact with inanimate objects; or through mosquitoes or other arthropod vectors. The use of any public conveyance (e.g., airplane, automobile, boat, bus, train) by persons with AIDS or HIV infection does not pose a risk of infection for the crew or other passengers.

Increased risk for contracting AIDS and HIV

Travelers are at risk if they:

- have sexual intercourse (heterosexual or homosexual) with an infected person;
- use or allow the use of contaminated, unsterilized syringes or needles for any injections or other skin-piercing procedures including acupuncture, use of illicit drugs, steroid or vitamin injections, medical/dental procedures, ear or body piercing, or tattooing;
- use infected blood, blood components, or clotting factor concentrates. HIV infection by this route is a rare occurrence in those countries or cities where donated blood/plasma is screened for HIV antibody.

People should avoid sexual encounters with a person who is infected with HIV or whose HIV infection status is unknown. This includes avoiding sexual activity with intravenous drug users and persons with multiple sexual partners, such as male or female prostitutes. Condoms, when used consistently and correctly, prevent transmission of HIV. Persons who engage in vaginal, anal, or oral-genital intercourse with anyone who is infected with HIV or whose infection status is unknown should use a condom.
For the information made available by the Center for Disease Control, please go to the following web address

http://wwwn.cdc.gov/travel/yellowBookCh4-HIV/AIDS.aspx
WPI Offices

Interdisciplinary and Global Studies Division
Project Center, 2nd Floor
T 508-831-5547
F 508-831-5485
• Prof. Rick Vaz, Dean
  x 5344, vaz@wpi.edu
• Natalie A. Mello
  Director of Global Operations
  x 5852, nmello@wpi.edu

Academic Advising
Daniels Hall
T 508-831-5381
F 508-831-5486
• Dale Snyder, Director
  X5281, dsnyder@wpi.edu

Accounting Office
Boynton Hall, 2nd Floor
T 508-831-5754
F 508-831-5064
• Constance LaBounty
  Accounting Clerk
  x 5203, labounty@wpi.edu

Central Mailing Services
Campus Center, 1st Floor
T 508-831-5523
F 508-831-5753
• Celia McLaren, Supervisor
  x 5683, cmclaren@wpi.edu

Financial Aid
Boynton Hall, Lower Level
T 508-831-5469
F 508-831-5039
• Monica Blondin, Director
  x 5469, mmlucey@wpi.edu

International Students and Scholars Office
28 Trowbridge Road
T 508-831-6030
F 508-831-6032
• Mr. Tom Thomsen, Director
  x6030, hartvig@wpi.edu

Academic Technology Center
Fuller Labs, 1st Floor
T 508-831-5220
F 508-831-5881
• Mary Beth Harrity, Director
  X5223, mharrity@wpi.edu

Registrar’s Office
Boynton Hall, 1st Floor
T 508-831-5211
F 508-831-5931
• Alaina Wiehn,
  Registrar
  x 5211, awiehn@wpi.edu
• Marjorie Roncone
  x 5457, mroncone@wpi.edu

Residential Services
Ellsworth Residence, Institute Road
T 508-831-5175
F 508-831-5870
• Naomi Carton, Director
  x 5175, letendre@wpi.edu

Student Development and Counseling Center
157 West Street
T 508-831-5540
F 508-831-5139
• Charles Morse, Director
  x 5540, cmorse@wpi.edu

Student Life Office
Campus Center, Main Level
T 508-831-5520
F 508-831-5581
• Philip Clay, Dean of Students
  X 5507, pclay@wpi.edu
## Internet Addresses

The following are web addresses that you may find helpful, particularly before you leave for your site.

### Health & Safety Sites

- Center for Disease Control (CDC)  
- American Society of Tropical Medicine and Hygiene (ASTMH)  
  [http://www.astmh.org](http://www.astmh.org)
- Council on International Educational Exchange (CIEE)  
  [http://www.ciee.org](http://www.ciee.org)
- Travel Safe: AIDS and International Travel  
- Lonely Planet  
- The Travel Clinic  
- Travel Health Online  
- U.S. State Department  
  [http://travel.state.gov](http://travel.state.gov)
- Association for Safe International Road Travel (ASIRT)  
- StudyAbroad.com Handbook  
- NAFSA: Association of International Educators  
  [http://www.nafsa.org/](http://www.nafsa.org/)

### Travel Sites

- U.S. State Department  
- Travel Warnings and Consular Information Sheets  
- Links to U.S. Embassies and Consulates Worldwide  
  [http://travel.state.gov/visa/questions_embassy.html](http://travel.state.gov/visa/questions_embassy.html)
- Services and Information for American Citizens Abroad  
- Travel Warning on Drugs Abroad  
  [http://travel.state.gov/travel/livingabroad_drugs.html](http://travel.state.gov/travel/livingabroad_drugs.html)
- Women's Sites  
  Journeywoman  
  [http://www.journeywoman.com](http://www.journeywoman.com)

### Disability Sites

- Access-Able  
  [http://www.access-able.com/tips/](http://www.access-able.com/tips/)
- Air Travel Tips and Resources  
  [http://www.miusa.org](http://www.miusa.org)
Advice from the CDC: General Travel Precautions

The following web address should be accessed for health information specific to where you will be traveling: http://wwwn.cdc.gov/travel/default.aspx. We strongly encourage all students to review these guidelines, advice and suggestions carefully. If vaccines are recommended then you should consult with your own personal health care professional (who has knowledge of your medical history) to determine what the best course of action is for you. The IGSD cannot provide medical advice. Any opinions expressed by students, advisors, or center directors with regard to medical issues are only opinions and should not be taken as authoritative.

The preventive measures you need to take while traveling depend on the areas you visit and the length of time you stay. All travelers should take the following precautions, no matter the destination:

- Wash hands often with soap and water.
- Because motor vehicle crashes are a leading cause of injury among travelers, walk and drive defensively.
- Avoid travel at night if possible and always use seat belts.
- Always use latex condoms to reduce the risk of HIV and other sexually transmitted diseases.
- Don’t eat or drink dairy products unless you know they have been pasteurized.
- Don’t share needles with anyone.
- Never eat undercooked ground beef and poultry, raw eggs, and un-pasteurized dairy products. Raw shellfish is particularly dangerous to persons who have liver disease or compromised immune systems.
- Drink only bottled or boiled water, or carbonated (bubbly) drinks in cans or bottles. Avoid tap water, fountain drinks, and ice cubes. If this is not possible, make water safer by BOTH filtering through an "absolute 1-micron or less" filter AND adding iodine tablets to the filtered water. "Absolute 1-micron filters" are found in camping/outdoor supply stores.
- Eat only thoroughly cooked food or fruits and vegetables you have peeled yourself. Remember: boil it, cook it, peel it, or forget it.
- If you visit an area where there is risk for malaria, take your malaria prevention medication before, during, and after travel, as directed. (See your doctor for a prescription.)
- Protect yourself from insects by remaining in well-screened areas, using repellents (applied sparingly at 4-hour intervals), and wearing long-sleeved shirts and long pants from dusk through dawn.
- To prevent fungal and parasitic infections, keep feet clean and dry, and do not go barefoot.

To Avoid Getting Sick
- Don’t eat food purchased from street vendors.
- Don’t drink beverages with ice.
- Don’t eat dairy products unless you know they have been pasteurized.
- Don’t share needles with anyone.
- Don’t handle animals (especially monkeys, dogs, and cats), to avoid bites and serious diseases (including rabies and plague).
- Don’t swim in fresh water. Salt water is usually safer.

What You Need To Bring with You
- Long-sleeved shirt and long pants to wear while outside whenever possible, to prevent illnesses carried by insects (e.g., malaria, dengue, filariasis, and Japanese encephalitis).
- Insect repellent containing DEET (diethylmethyltoluamide), in 30%–35% strength for adults and 6%–10% for children.
- Over-the-counter antidiarrheal medicine to take if you have diarrhea.
- Iodine tablets and water filters to purify water if bottled water is not available. See Do’s above for more detailed information about water filters.
- Sunblock, sunglasses, hat.
- Prescription medications: make sure you have enough to last during your trip, as well as a copy of the prescription(s).

**After You Return Home**
- If you have visited an area where there is risk for malaria, continue taking your malaria medication weekly for 4 weeks after you leave the area.
- If you become ill after travel—even as long as a year after your trip—tell your doctor the areas you have visited.

## Section 3 – Site Specific Information Edmonton

### Paperwork Deadline

All paperwork for Edmonton B09 must be in the IGSD office by **Tuesday, October 6, 2009**, by 3:00 p.m.

### Dates and Travel:

You should plan to fly to the Edmonton International Airport. This airport is serviced by a number of airlines. The following dates should be used when making your travel arrangements to Edmonton:

**Term B’09**
- **Arrival**: Monday, 26 October 2009
- **Departure**: Friday, 18 December 2009

**Term C’10**
- **Arrival**: Wednesday, 18 January 2010
- **Departure**: Saturday, 6 March 2010

You will probably want to arrive a few days before and depart a few days after these dates to get settled before the term starts. You are required to submit the travel information form six weeks prior to departure. ([http://www.wpi.edu/Academics/GPP/Students/Travel_Form_07-08.pdf](http://www.wpi.edu/Academics/GPP/Students/Travel_Form_07-08.pdf))

### Communication:

To call any Edmonton telephone number, dial exactly as you would in the United States (1-area code-number). When you arrive at Edmonton, and take a shuttle or taxi to your housing, you should inform the Stantec Project Advisor:

Klaas Rodenburg  
10724 - 30 Street Edmonton, AB  
T5W 1V8  
mailto:klaas.rodenburg@stantec.com  
home: (780) 474-1810  
work: (780) 917-7006  
cell: (780) 982 – 7983

Consistent with WPI’s Residence Hall policy there are no pets allowed in project center housing. Violation of this policy can result in your termination from a residential project center.

### Calling Home:

The cell phone service providers in Alberta, Canada are the same as in the United States. Before traveling to Edmonton you should check with your provider on services offered in that location. This will allow you to communicate easily with each other, and will allow you to call home inexpensively.

### Health Resources in Edmonton:

- **Capital Health**: [http://www.capitalhealth.ca/default.htm](http://www.capitalhealth.ca/default.htm)
- **Primary Care Facilities (Edmonton Region)**: [http://www.capitalhealth.ca/HospitalsandHealthFacilities/Hospitals/default.htm](http://www.capitalhealth.ca/HospitalsandHealthFacilities/Hospitals/default.htm)
  - Royal Alexandra Hospital (Emergency plus primary care services)
Royal Alexandra Hospital
10240 Kingsway Avenue
Edmonton, AB T5H 3V9
780-735-4111
http://www.capitalhealth.ca/HospitalsandHealthFacilities/Hospitals/RoyalAlexandreaHospital/default.htm

University Hospital (emergency plus primary care services)
http://www.capitalhealth.ca/HospitalsandHealthFacilities/Hospitals/UniversityofAlbertaHospital/default.htm

Mental Health Facilities (all facilities)
Edmonton Mental Health Clinic Services
9942 - 108 Street
Edmonton, Alberta, T5K 2J5
http://www.capitalhealth.ca/HospitalsandHealthFacilities/CommunityMentalHealthClinics/default.htm

9902 – 108 Street (nearest location – see map)
http://www.capitalhealth.ca/HospitalsandHealthFacilities/CommunityMentalHealthClinics/default.asp?display=services&L1=14&L2=0&L3=55

River City Dental, Dr Garth Von Hagen Dr Kevin Zarsky Dr Darcy Burnett
Street: 11324 104 Avenue Northwest
Edmonton, ab T5K2W9-
Phone: (780) 428-2888

**Housing and Transportation**

Housing facilities have not been finalized at the time of this document was written. Edmonton has mass transit facilities within the city, and housing should be located near this service. The office building you will be working in is located in the city of Edmonton.
Consular Information – Canada

February 17, 2009

COUNTRY DESCRIPTION: Canada is a highly developed, stable democracy. Tourist facilities are widely available in much of the country, but the northern and wilderness areas are less developed and facilities there can be vast distances apart. Read the Department of State Background Notes on Canada for additional information.

ENTRY/EXIT REQUIREMENTS: Entry into Canada is solely determined by Canadian Border Services Agency (CBSA) officials in accordance with Canadian law. Canadian law requires that all persons entering Canada carry both proof of citizenship and proof of identity. A valid U.S. passport, passport card or NEXUS card (see below) satisfies these requirements for U.S. citizens. If U.S. citizen travelers to Canada do not have a passport, passport card or approved alternate document such as a NEXUS card, they must show a government-issued photo ID (e.g. Driver’s License) and proof of U.S. citizenship such as a U.S. birth certificate, naturalization certificate, or expired U.S. passport. Children under sixteen need only present proof of U.S. citizenship.

All Americans traveling by air outside of the United States are required to present a passport or other valid travel document to enter the United States. This requirement will be extended to sea travel (except closed-loop cruises), including ferry service, on June 1, 2009. Until then, U.S. citizens traveling by sea may present government-issued photo identification and a document showing their U.S. citizenship (for example, a birth certificate or certificate of nationalization). Starting June 1, 2009, all travelers must present a Western Hemisphere Travel Initiative (WHTI) compliant document such as a passport or a passport card for entry to the United States. While passport cards and enhanced driver’s licenses are sufficient for entry into the United States, they may not be accepted by the particular country you plan to visit; please be sure to check with your cruise line and countries of destination for any foreign entry requirements.

Both the U.S. and Canadian governments urge frequent travelers to join the NEXUS trusted traveler program. NEXUS members receive a special travel card that allows expedited border crossings for both private and commercial travelers through both U.S. and Canadian border controls very quickly. The CBP has detailed information about the NEXUS program.

U.S. citizens entering Canada from a third country must have a valid U.S. passport. A visa is not required for U.S. citizens to visit Canada for up to 180 days. Anyone seeking to enter Canada for any purpose other than a visit (e.g. to work, study or immigrate) must qualify for the appropriate entry status, and should contact the Canadian Embassy or nearest consulate and visit the Canadian immigration web site.

Anyone with a criminal record (including misdemeanors or Driving While Impaired (DWI) charges may be barred from entering Canada and must obtain a special waiver well in advance of any planned travel. To determine whether you may be inadmissible and how to overcome this finding, refer to the Canadian citizenship and immigration web site.

For further, travelers may contact the Canadian Embassy at 501 Pennsylvania Avenue NW, Washington DC 20001, tel. (202) 682-1740; or the Canadian consulates in Atlanta, Boston, Buffalo, Chicago, Dallas, Detroit, Los Angeles, Miami, Minneapolis, New York, San Juan or Seattle.
Information about dual nationality or the prevention of international child abduction can be found on our web site. For further information about customs regulations, please read our Customs Information sheet.

SAFETY AND SECURITY: For the latest security information, Americans traveling abroad should regularly monitor the Department of State, Bureau of Consular Affairs’ web site, where the current Travel Warnings and Travel Alerts, as well as the Worldwide Caution, can be found.

Up-to-date information on safety and security can also be obtained by calling 1-888-407-4747 toll-free in the U.S. and Canada or, for callers outside the U.S. and Canada, a regular toll line at 1-202-501-4444. These numbers are available from 8:00 a.m. to 8:00 p.m. Eastern Time, Monday through Friday (except U.S. federal holidays).

The Department of State urges American citizens to take responsibility for their own personal security while traveling overseas. For general information about appropriate measures travelers can take to protect themselves in an overseas environment, see the Department of State’s A Safe Trip Abroad.

CRIME: Although Canada generally has a lower crime rate than the U.S., violent crimes do occur throughout the country, especially in urban areas. Visitors to large cities should be aware that parked cars are regularly targeted for opportunistic smash-and-grab thefts, and they are cautioned to avoid leaving any possessions unattended in a vehicle, even in the trunk. Due to the high incidence of such crimes, motorists in Montreal, Vancouver and some other jurisdictions can be fined for leaving their car doors unlocked or for leaving valuables in view. Auto theft in Montreal and Vancouver, including theft of motor homes and recreational vehicles, may even occur in patrolled and apparently secure parking lots and decks. SUVs appear to be the particular targets of organized theft. While Canadian gun control laws are much stricter than those of the U.S., such laws have not prevented gun-related violence in certain areas.

INFORMATION FOR VICTIMS OF CRIME: The loss or theft abroad of a U.S. passport should be reported immediately to the local police and the nearest U.S. Embassy or Consulate. If you are the victim of a crime while overseas, in addition to reporting to local police, please contact the nearest U.S. Embassy or Consulate for assistance. The Embassy/Consulate staff can, for example, assist you to find appropriate medical care, contact family members or friends and explain how funds could be transferred. Although the investigation and prosecution of the crime is solely the responsibility of local authorities, consular officers can help you to understand the local criminal justice process and to find an attorney if needed. Each of Canada’s provinces has a Crime Victim Compensation Board from which American victims of crime in Canada may seek redress.

As in the U.S., emergency assistance can be reached by dialing 911.

See our information on Victims of Crime.

MEDICAL FACILITIES AND HEALTH INFORMATION: The level of public health and sanitation in Canada is high. Canada’s medical care is of a high standard but is government-controlled and rationed. Quick and easy access to ongoing medical care is difficult for temporary visitors who are not members of each province’s government-run health care plans. Many physicians will not take new patients. Access to a specialist is by only by referral and may take months to obtain. Emergency room waits can be very long. Some health care professionals in the province of Quebec may speak only French. No Canadian health care provider accepts U.S. domestic health insurance, and Medicare coverage does not extend outside the United States. Visitors who
seek any medical attention in Canada should be prepared to pay in cash in full at the time the service is rendered. Traveler’s medical insurance is highly recommended even for brief visits.

The U.S. Department of State is unaware of any HIV/AIDS entry restrictions for visitors to or foreign residents of Canada.

Information on vaccinations and other health precautions, such as safe food and water precautions and insect bite protection, may be obtained from the Centers for Disease Control and Prevention’s hotline for international travelers at 1-877-FYI-TRIP (1-877-394-8747) or via the CDC’s web site. For information about outbreaks of infectious diseases abroad, consult the World Health Organization’s (WHO) web site. Further health information for travelers is available from the WHO.

MEDICAL INSURANCE: The Department of State strongly urges Americans to consult with their medical insurance company prior to traveling abroad to confirm whether their policy applies overseas and whether it will cover emergency expenses such as a medical evacuation. Please see our information on medical insurance overseas.

TRAFFIC SAFETY AND ROAD CONDITIONS: While in a foreign country, U.S. citizens may encounter road conditions that differ significantly from those in the United States. The information below concerning Canada is provided for general reference only, and may not be totally accurate in a particular location or circumstance. As in the United States, all emergency assistance in Canada can be reached by dialing 911.

Transport Canada is the Canadian federal government agency responsible for road safety, although each province or territory has the authority to establish its own traffic and safety laws and issue driving licenses. For detailed information on road conditions throughout Canada, as well as links to provincial government web sites, please see the Transport Canada web site or the Canadian Automobile Association web site. The CAA honors American Automobile Association membership. Some automobile warranties of vehicles purchased in the U.S. may be invalid in Canada; please check the warranty of your vehicle.

Driving in Canada is similar to driving in many parts of the United States. Distances and speeds, however, are posted in kilometers per hour, and some signs, particularly in Quebec, may only be in French. U.S. driver’s licenses are valid in Canada. Proof of auto insurance is required. U.S. auto insurance is accepted as long as an individual is a tourist in Canada. U.S. insurance firms will issue a Canadian insurance card, which should be obtained and carried prior to driving into Canada. For specific information concerning Canadian driving permits, mandatory insurance and entry regulations, please contact the Canadian National Tourist Organization.

Unless otherwise posted, the maximum speed limit in Canada is 50km/hr in cities and 80km/hr on highways. On rural highways, the posted speed limit may be 100km/hr (approximately 60 miles/hr). Seat belt use is mandatory for all passengers, and child car seats must be used by children under 40 pounds. Some provinces require drivers to keep their vehicles’ headlights on during the day. Motorcycles cannot share a lane, and safety helmets for motorcycle riders and passengers are mandatory. Many highways do not have merge lanes for entering traffic. Tailgating and rapid lane-changes without signaling are common. Emergency vehicles frequently enter the oncoming traffic lane to avoid congestion. Drivers should be aware that running a red light is a serious concern throughout Canada, and motorists are advised to pause before proceeding when a light turns green.

Driving while impaired (DWI) is a criminal offense in Canada. Penalties are heavy, and any prior conviction (no matter how old or how minor the infraction) is grounds for exclusion from Canada. Americans with a DWI record must seek a waiver of exclusion from Canadian authorities.
before traveling to Canada, which requires several weeks or months to process. It is illegal to take automobile radar detectors into Quebec, Ontario, Manitoba, the Yukon or the Northwest Territories, regardless of whether they are used or not. Police there may confiscate radar detectors, operational or not, and impose substantial fines.

Winter travel can be dangerous due to heavy snowfalls and hazardous icy conditions. Some roads and bridges are subject to periodic winter closures. Snow tires are required in some Provinces. The Canadian Automobile Association has tips for winter driving in Canada. Travelers should also be cautious of deer, elk and moose while driving at night in rural areas.

Highway 401, from Detroit to Montreal, is one of the busiest highways in North America. It has been the scene of numerous, deadly traffic accidents due to sudden, severe and unpredictable weather changes, high rates of speed, and heavy truck traffic. There have been numerous incidents involving road racing and dangerous truck driving. Drivers tend to be aggressive, often exceeding speed limits and passing on both sides, and police enforcement is spotty. In addition, approaches to border crossings into the United States may experience unexpected traffic backups. Drivers should be alert, as lane restrictions at border approaches exist for drivers in NEXUS and FAST expedited inspection programs.

Please refer to our Road Safety page for more information. Visit Canada’s national authority responsible for road safety.

AVIATION SAFETY OVERSIGHT: The U.S. Federal Aviation Administration (FAA) has assessed the Government of Canada’s Civil Aviation Authority as being in compliance with International Civil Aviation Organization (ICAO) aviation safety standards for oversight of Canada’s air carrier operations. For more information, travelers may visit the FAA web site at http://www.faa.gov/safety/programs_initiatives/oversight/iasa.

SPECIAL CIRCUMSTANCES: IMPORTATION OF FIREARMS: Firearms are much more strictly controlled in Canada than in the United States. Violation of firearms restrictions may result in prosecution and imprisonment. As of January 1, 2001, visitors bringing any firearms into Canada, or planning to borrow and use firearms while in Canada, must declare the firearms in writing using a Non-Resident Firearm Declaration form. Visitors planning to borrow a firearm in Canada must obtain in advance a Temporary Firearms Borrowing License. These forms must be signed before a Canadian Border Services Agency (CBSA) officer at the border and no photocopies are available at the border. Full details and downloadable forms are available from the Canada Firearms Program. Canadian law requires that officials confiscate firearms and weapons from persons crossing the border who deny having the items in their possession. Confiscated firearms and weapons are never returned. Possession of an undeclared firearm may result in arrest and imprisonment.

Canada has three classes of firearms: non-restricted, restricted, and prohibited. Non-restricted firearms include most ordinary hunting rifles and shotguns. These may be brought temporarily into Canada for sporting or hunting use during hunting season, use in competitions, in-transit movement through Canada, or personal protection against wildlife in remote areas of Canada. Anyone wishing to bring hunting rifles into Canada must be at least 18 years old, must properly store the firearm for transport, and must follow the declaration requirements described above. Restricted firearms are primarily handguns; however, pepper spray, mace, and some knives also are included in this category. A restricted firearm may be brought into Canada, but an Authorization to Transport permit must be obtained in advance from a Provincial or Territorial Chief Firearms Officer. Prohibited firearms include fully automatic, converted automatics, and assault-type weapons. Prohibited firearms are not allowed into Canada.
SPECIAL CIRCUMSTANCES: PORNOGRAPHY AND CONTROLLED SUBSTANCES: Canada has strict laws concerning child pornography, and in recent years there has been an increase in random checks of electronic media of travelers entering Canada. Computers are subject to search without a warrant at the border, and illegal content can result in the seizure of the computer as well as detention, arrest and prosecution of the bearer.

Please see our Customs Information.

CRIMINAL PENALTIES: While in a foreign country, a U.S. citizen is subject to that country's laws and regulations, which sometimes differ significantly from those in the United States and may not afford the protections available to the individual under U.S. law. Penalties for breaking the law can be more severe than in the United States for similar offenses. Persons violating Canada's laws, even unknowingly, may be expelled, arrested or imprisoned. Penalties for possession, use, or trafficking in illegal drugs in Canada are severe, and convicted offenders can expect long jail sentences and heavy fines. Engaging in sexual conduct with children or using or disseminating child pornography in a foreign country is a crime, prosecutable in the United States.

Canadian law prohibits the unlawful importation or trafficking of controlled substances and narcotics. A number of travelers, including Americans, have been arrested for attempting to smuggle chat, a narcotic from East Africa, into Canada. Smugglers risk substantial fines, a permanent bar from Canada and imprisonment.

Please also see our information on Criminal Penalties.

CHILDREN’S ISSUES: For information see our Office of Children’s Issues web pages on intercountry adoption and international parental child abduction.

REGISTRATION / EMBASSY LOCATION: Americans living or traveling in Canada are encouraged to register with the U.S. Embassy or nearest U.S. Consulate through the State Department’s travel registration website, and to obtain updated information on travel and security within Canada. By registering, American citizens make it easier for the Embassy or Consulate to contact them in case of emergency.

The U.S. Embassy is in Ottawa, Ontario, at 490 Sussex Drive, K1N 1G8, telephone (613) 238-5335, fax (613) 688-3082. The Embassy's consular district includes Ottawa, Easter Ontario (Kingston, Lanark, Leeds, Prescott, Refrew, Russell, and Stormont); and those parts of the Quebec Regions of Outaouais and Abitibi-Temiscamingues near Ottawa.

U.S. Consulates General are located at:

Calgary, Alberta, at 10th Floor, 615 Macleod Trail SE, telephone (403) 266-8962; emergency-after hours-to report the death or arrest of an American (403) 266-8962 then press '0'; fax (403) 264-6630. The consular district includes Alberta, Manitoba, Saskatchewan, and the Northwest Territories, excluding Nunavut.


Montreal, Quebec, at 1155 St. Alexander Street, telephone (514) 398-9695; emergency-after hours-to report the death or arrest of an American (514) 981-5059; fax (514) 398-0702.
consular district includes Greater Montreal and the regions of Southern Quebec Province (Laurentides, Lanaudiere, Laval, Montreal, Montregie, Estrie, and the southern parts of Centre-du-Quebec); including Joliette, Drummondville and Sherbrooke.

Quebec City, Quebec, at 2 rue de la Terrasse Dufferin, telephone (418) 692-2095; emergency-after hours-to report the death or arrest of an American (418) 692-2096; fax (418) 692-4640. The consular district includes Quebec City and those regions of Quebec Province to the North and East of the Montreal and Ottawa Districts (indicated above), plus the Territory of Nunavut.

Toronto, Ontario, at 360 University Avenue, telephone (416) 595-1700; emergency-after hours-to report the death or arrest of an American (416) 201-4100; fax (416) 595-5466. The consular district includes the province of Ontario except the six counties served by the U.S. Embassy in Ottawa.

Vancouver, British Columbia, at 1095 West Pender Street, telephone (604) 685-4311; fax (604) 685-7175. The consular district includes British Columbia and the Yukon Territory.

All visa applicants are seen by appointment only. Information on visa appointments is available from www.nvars.com. Information on visa services for foreigners and consular/passport services for Americans who live in Canada is available from the U.S. Embassy web site. No visa or consular/passport information is available by calling the embassy or consulate switchboards.

* * *

This replaces the Country Specific Information for Canada dated December 11, 2007, to update sections on Entry/Exit Requirements, Crime, Traffic Safety and Road Conditions, and Registration/Embassy Location.
Section 4 – Transition Issues

Experiences in Transition
adapted from an article by Janet Bennett, Intercultural Communication Institute, Portland OR

Culture Surprise
Culture surprise are the reactions which occur shortly after arrival in a different culture when we see things that are different than we are used to. It usually occurs within the first few days after arrival as we become aware of superficial differences: modes of dress, signs in a different language, nonverbal behaviors.

Culture Stress
Culture stress manifests itself in the fatigue that occurs when we practice new behaviors in a different culture. This occurs as we respond to the behavior of the new culture and try to fit in by doing our own shopping, understanding comments made about us in the local language, learning to navigate public transportation and other attempts to adjust to the new culture.

Culture Shock
Culture shock is a state of loss and disorientation precipitated by a change in our environment that requires adjustment. It results from confronting values different from our own and from the loss of a familiar network and environment. It is a normal healthy reaction to the stress of living in a different culture. Everyone who has spent time living in another culture experiences some form of culture shock.

Symptoms of Culture Shock
Symptoms can be both physical and psychological, and can include: headaches, stomach aches, dizziness, rashes, nausea, irritability, insomnia or excessive sleepiness, depression, loneliness, withdrawal paranoia, anger, aggression, hatred, fear, crying, complaining, self-doubt, boredom, helplessness, confusion, and feelings of inadequacy. This list is not exhaustive.

Prescription for Culture Shock
adapted from an article by Bruce LaBrack, Summer Institute for Intercultural Communication

1. Understand the symptoms and recognize the signs of culture stress.
2. Realize that some degree of discomfort and stress is natural in a cross-cultural experience.
3. Recognize that your reactions are largely emotional and not easily subject to rational management.
4. Gather information before you go so at least the differences will be anticipated. Knowledge is power.
5. Look for the logical reasons behind host culture patterns. Discover why things are done the way they are.
6. Relax your grip on your normal culture and try to cheerfully adapt to new rules and roles.
7. Don’t give in to the temptation to disparage what you do not like or understand. It probably won’t change.
8. Identify a support network among peers, team members, other students and faculty advisor. Use this network, but do not rely on it exclusively.
9. Understand that this is a passing phase of what will be, in retrospect, a time of great learning and personal growth.
10. Give yourself quiet time, some private space, and don’t be too hard on yourself.
In preparation to return home

-In a sense, it is the coming back, the return, which gives meaning to the going forth. We really don't know where we've been until we come back to where we were - only where we were may not be as it was because of who we've become, which, after all is why we left.‖ - Bernard, Northern Exposure

Reentry Challenges and Suggestions
adapted from articles by Dr. Bruce LaBrack, School of International Studies, University of the Pacific

There are lots of reasons to look forward to going home, but there are also a number of psychological, social and cultural aspects that prove difficult - often because they are unanticipated. Re-entry into your home culture can be both as challenging and frustrating as living overseas, mostly because our attitude toward going home is that it should be a simple matter of getting resettled, resuming earlier routines, and reestablishing your relationships. Research has shown that re-entry has its own set of special social and psychological adjustments which can be facilitated by being aware of the process and following some advice from those who have already returned.

Interviewing students who have been through the experience of off-campus study generated the following list of issues and suggestions. Their advice is to take the process seriously by being realistic and thinking about it and your possible reactions.

Prepare for the adjustment process and allow enough time
The more you think about what is to come, and know how returning home is both similar to and different from going away, the easier the transition will be. Anticipating is useful. The process of re-entry will take time, just like adjusting to the new culture did. Give yourself time to relax and reflect on what is going on around you, how you are reacting to it, and what you might like to change.

Overcoming boredom
After all the newness and stimulation of your time away, a return to family, friends, and old routines (however nice and comforting) can seem very dull. It is natural to miss the excitement and challenges which characterize project work off-campus, but it is up to you to find ways to overcome such negative reactions - remember a bored person is also boring.

“No one wants to hear”
One thing you can count on upon your return: no one will be as interested in hearing about your adventures as you will be in sharing those experiences. This is not a rejection of you or your achievements, but simply the fact that once others have heard the highlights, any further interest on their part is probably unlikely because they have no frame of reference for your experiences. Be realistic in your expectations of how fascinating your journey is going to be for everyone else. Be brief.

Cultivate sensitivity and interest
Showing an interest in what others have been doing while you have been gone is the surest way to reestablish your rapport. Much frustration can be avoided if you become as good a listener as a talker.

You can't explain
Even when given a chance to explain all the things you saw, felt and experienced while off-campus, it is likely to be at least a bit frustrating to relay them coherently. It is very difficult to
convey this kind of experience to people who do not have similar frames of reference, no matter how sympathetic they are as listeners. You can tell people about your trip, but you may fail to make them understand exactly how or why you felt a particular way. It’s okay.

**Reverse homesickness**
Just as you probably missed home for a time after leaving campus, it is just as natural to experience some -reverse homesickness for the people, places and things that you grew accustomed to while away from WPI. Feelings of loss are an integral part of returning from an off-campus sojourn and must be anticipated and accepted as a natural result of study away.

**Beware of comparisons**
Making comparisons between cultures is natural, particularly after residence abroad; however, the tendency to be an -instant expert- is to be avoided at all costs.

**Relationships have changed**
It is inevitable that when you return you will notice that some relationships with friends and family will have changed. Just as you have altered some of your ideas and attitudes while away, the people at home are likely to have experienced some changes as well. These changes may be positive or negative, and may seem even trivial to you, but expecting no change is unrealistic. The best preparation is flexibility, openness, minimal preconceptions, and tempered optimism.

**Feelings of alienation**
Sometimes the reality of being back home is not as natural or enjoyable as the place you had imagined. When real daily life is more demanding than you remembered, it is natural to feel some alienation, see faults you never noticed before, or even become quite critical of everyone and everything for a time. Mental comparisons are fine, but keep them to yourself until you regain both your cultural balance and a balanced perspective.

**Remain flexible**
Keeping as many options open as possible is an essential aspect of a successful return home. Attempting to re-socialize totally into old patterns and networks can be difficult, but remaining isolated and aloof is counterproductive.

**Loss/compartmentalization of experience**
Being home, along with the pressures of schoolwork, family and friends, often combine to make returnees worried that somehow that will -lose- the experience; somehow becoming compartmentalized like souvenirs only occasionally taken out and looked at. You do not have to let that happen. Maintain your contacts. Talk to people who have experiences similar to yours. Practice your skills. Remember your hard work and the fun you had while off-campus. There are lots of people on campus who have gone through their own re-entry and have had experiences similar to yours. Seek out other returned students from other sites, and look into becoming involved with the Global Ambassadors.
# APPENDIX A - WPI OFF-CAMPUS STUDY TRAVEL INFORMATION FORM

## WPI Off-Campus Study Travel Information Form

You must attach a copy of your travel itinerary provided by your travel agent or airline, in addition to completing this form. No handwritten itineraries will be accepted.

All students intending to complete a project at a WPI project site are asked to provide the IGSD with information about their travel arrangements. This will notify the faculty advisor, on-site coordinator and IGSD staff of your expected arrival date and time and alert them if a problem arises. *For some sites* this information is needed in order to arrange to have students met at the airport.

You must bring your passport into the IGSD to be scanned, unless you are participating in a project program within the U.S.

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<tr>
<td>Airline:</td>
<td>Flight Number:</td>
<td>Airport Destination:</td>
</tr>
<tr>
<td>Departure time:</td>
<td>Arrival time:</td>
<td></td>
</tr>
<tr>
<td>If you plan to travel independently either before or after the program, please tell us your tentative plans:</td>
<td></td>
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</tr>
</tbody>
</table>

London Project Center Only

Bus Transportation: _____ Yes _____ No

*(Please make sure you check one of these options for transportation from Heathrow Airport to IES)*
APPENDIX B - OFF-CAMPUS STUDENTS’ HEALTH UPDATE AND RECORDS RELEASE FORM

Name Project Site Term

All students traveling off-campus to participate in a WPI program are required to carry medical insurance that is valid at the program site for the entire length of the program. Please verify this with your insurance company and list the name of your carrier and your policy number.

Carrier Policy Number:

Do you have any medical conditions that could affect you while off-campus of which you would like to make the IGSD aware? (i.e. epilepsy, diabetes, depressive episodes, etc.) Also, please list any changes in your health not noted on your medical records on file with WPI Health Services.

Are you allergic to any medications? If so, please list them.

List any prescription medicines you are currently taking.

When traveling off-campus it is a good idea to take a supply of your prescription medications sufficient to last for the length of the trip. Prescription medicines should always be kept in the original containers with the prescription label to avoid problems with customs. It is also important to take along a copy of the prescription from your physician, clearly written, in generic terms, and with an indication of the condition being treated.

In the event of an emergency, please contact:

1. Name Relationship to Student
   Address
   
   Cell Phone #:
   Home Telephone: Work Telephone:

2. Name Relationship to Student
   Address
   
   Cell Phone #:
   Home Telephone: Work Telephone:

I hereby authorize WPI health services to release my medical records to the Interdisciplinary and Global Studies Division in the event of a medical emergency while studying off-campus. I hereby acknowledge that it is my responsibility to contact my health insurance provider to determine that I am covered while at an off-campus project site.

Signature Date
**APPENDIX C - ATC TEAM FORM**  
*(One Per Team)*

After you have turned in this completed form to the IGSD, at least one member of your group (although we suggest the entire group come so that the entire group takes equal responsibility for the equipment) is required to go to the ATC and reserve a laptop BEFORE pick-up on the specified date.

Project Site: ________________________________________________

Pickup person: ______________________________________________

Return person: ______________________________________________

names of team members: ______________________________________

________________________________________________________________________

________________________________________________________________________

If you can not pick up and return this PC within the specified dates, then you will need to make alternative arrangements: the ATC can *not* accommodate you.

**Dates:** pick up on or after: These dates will be filled in by IGSD

Return on or before: These dates will be filled in by IGSD

<table>
<thead>
<tr>
<th>Pick-up Person</th>
<th>Return Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Name:</td>
<td>Student Name:</td>
</tr>
<tr>
<td>Student Address:</td>
<td>Student Address:</td>
</tr>
<tr>
<td>________________</td>
<td>________________</td>
</tr>
<tr>
<td>Phone #:</td>
<td>Phone #:</td>
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<td>________________</td>
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<tr>
<td>Student ID#:</td>
<td>Student ID#:</td>
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<td>________________</td>
<td>________________</td>
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<tr>
<td>Student Email:</td>
<td>Student Email:</td>
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<td>________________</td>
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</table>
# APPENDIX D - ONSITE TRAVEL FORM

<table>
<thead>
<tr>
<th>Name</th>
<th>Cell phone number</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Destination</th>
<th>Date &amp; time of departure</th>
<th>Date &amp; time of return</th>
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## Mode of Transportation – Roundtrip

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<thead>
<tr>
<th>Train</th>
<th>Bus</th>
<th>Air</th>
<th>Car</th>
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</table>

### Departing from the Site Information

<table>
<thead>
<tr>
<th>Time of Departure</th>
<th>Number of flight/train/bus</th>
<th>Airline/train/bus carrier</th>
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</table>

* Connection Information if applicable:

<table>
<thead>
<tr>
<th>Number of flight/train/bus</th>
<th>Airline/train/bus carrier</th>
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<table>
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<tr>
<th>Departing from (name of airport, station, terminal)</th>
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</table>

### Returning to the Site Information

<table>
<thead>
<tr>
<th>Time of Departure</th>
<th>Number of flight/train/bus</th>
<th>Airline/train/bus carrier</th>
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* Connection Information if applicable:

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<thead>
<tr>
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<th>Airline/train/bus carrier</th>
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</table>

<table>
<thead>
<tr>
<th>Departing from (name of airport, station, terminal)</th>
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</table>

### Lodging

(please call advisor with any changes to your reservations)

<table>
<thead>
<tr>
<th>Name of hotel</th>
<th>Name of hotel</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Address</th>
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<table>
<thead>
<tr>
<th>City and country</th>
<th>City and country</th>
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<table>
<thead>
<tr>
<th>Phone number</th>
<th>Phone number</th>
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List other students who are traveling with you on this exact itinerary:

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</tbody>
</table>

☐ Check this box if you are staying on site in WPI provided housing for the entire weekend.

<table>
<thead>
<tr>
<th>Student Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Every student or group of students must turn this form into an advisor before 12:00 noon every Friday – in other words, every student must be accounted for,