



**Western University - Faculty of Engineering
Department of Civil and Environmental Engineering**

CEE 3327a – International Development for Engineers - Course Outline 2018

This course introduces students to the background and concepts of international development and gives insight into how to work effectively on a development project and/or in an international context. This course will assist students to be able to effectively use their engineering abilities in developing countries. The general objectives are for the student to become able to:

- Develop a deep and broad understanding of how international development cooperation works through critical thinking and using ideas and perspectives from many disciplines
- Acquire the tools to prepare to be an effective practitioner of international development cooperation, participate in and lead collaborative efforts to address international development challenges
- Evaluate international development cooperation work on the basis of desired results and methodologies
- Develop an awareness of international development literature
- Apply knowledge to case studies and effectively work through making decisions in the context of an international development project
- Improve written and oral communication skills through thoughtful class contribution, debate and discussion
- Relate and explain key development issues and problems and propose creative context-specific solutions
- Recognize the need for life-long learning to keep abreast of new methods in international development cooperation, enhance one's abilities as an effective practitioner, and maintain one's professional competence.

Calendar Copy:

The course will assist students to achieve a broad understanding of international development to enable the effective use of engineering in developing countries. The course covers what works and does not work in international development, the results targeted in development work, and effective approaches and methodologies to achieve those ends.

Contact Hours:

3 lecture hours per week: **Tuesday** (1hr. 2:30-3:30) & **Thursday** (2hr. 1:30 -3:30)
(recommended additional personal study 4+ hours per week).

Attendance at the lectures is **mandatory**.

Prerequisites: Admission to the Environmental Engineering with International Development Option or the Structural Engineering with International Development Option.

Corequisites: None

Antirequisite: None

Note: It is the **student's responsibility** to ensure that all Prerequisite and Corequisite conditions are met or that special permission to waive these requirements has been granted by the Faculty. It is also the **student's responsibility** to ensure that they have not taken a course listed as an Antirequisite. The student may be dropped from the course or not given credit for the course towards their degree if they violate the Prerequisite, Corequisite or Antirequisite conditions.

Instructor:

Christine Gilmore, Office Room#: SEB 3117, Email: cgilmor4@uwo.ca.
Administrative Support: Room 3005

Textbook:

International Development: A Casebook for Effective Management [Paperback (\$28) in the UWO bookstore **or** e-Book (\$10)]
Frederick Keenan and Christine Gilmore (Authors)
Publisher: iUniverse Inc. (01/06/2011)

Other References:

See *Suggested Reading and Viewing in International Development Literature* list posted on OWL.

Additional Reading will be provided through the course website.

Computing:

Written assignments must be submitted as word processed documents in Microsoft Word or PDF formats. All assignments must be submitted with properly cited references to course instructor via email and through course website using TURNITIN.

Units: SI units will be used in lectures and examinations

Course Style and Specific Learning Objectives (adapted from J. Gerhard, CEE 3328 course)

The pedagogical model **is collaborative learning**, so the classes will be based on a combination of discussions, debates, readings, videos, presentations and lectures.

Students are expected to come to class prepared to discuss the weekly readings with your classmates. The course instructor will provide mentorship and guidance for the students to undertake individual and collective learning processes focused on achieving the course objectives.

A substantial reading list will be employed that will provide material for digestion, synthesis, and reflection in an individual book report assignment, group discussions and group debates. Students will research topics and present their findings to the class.

Guest speakers will add to previously read case studies that will illustrate practical applications of the topic material. Projects will explore pertinent areas of international development.

By the end of the course, the student should be able to articulate her/his own learning with respect to these key points aligned with the course's specific learning objectives:

- Show their comprehensive knowledge of what is happening in the world
- Explain what works and what doesn't in international development cooperation

- Use effectively results based management to plan an international development project
- Use their critical faculty to make good decisions in complex situations
- Demonstrate their knowledge of the decision making processes in international development projects through use of decision matrices and be able to apply this knowledge to specific case studies
- Summarize key aspects of international development cooperation projects that have been successful and those that have failed
- Articulate what lessons were learned from various aspects of international development cooperation
- Identify key terms used in the context of international development
- Describe major aspects learned from international development readings that will enhance one's effectiveness as an engineer working in international development.
- Be able to provide advice on international development cooperation projects
- Identify challenges, circumstances and consequences faced by developing countries in our global community

Various Themes Covered: Introduction to International Development, Colonialism, Root Causes of Poverty, Pillars of Sustainable Development, Religion, Culture, United Nations 17 Global Development Goals, Corporate Social Responsibility, Information Gathering, plus others

General Learning Objectives

E=Evaluate, T=Teach, I=Introduce (*Beginner or Intermediate or Advanced Level*)

Problem Analysis	T	Team Work	E	Ethics and Equity	T
Investigation	T	Communication	E	Economics and Project Management	
Design		Professionalism	E	Life-Long Learning	T
Engineering Tools		Impact on Society	T		

Evaluation Breakdown:

The final course mark will be determined as follows:

Projects:	40%
Class Contribution:	10%
Final Exam:	<u>50%</u>
Total	100%

- Note:
- Students must pass the final examination to pass this course.** Students who fail the final examination will be assigned the aggregate mark, as determined above, or 48%, whichever is less.
 - Students must turn in all individual assignments and projects to pass this course.** Students who do not satisfy this requirement will be assigned 48% or the aggregate mark, whichever is less.
 - Students who have failed this course previously must repeat all components of the course.** No special permissions will be granted enabling a student to retain laboratory, assignment or test marks from previous years. Previously completed assignments and laboratories cannot be resubmitted.
 - Should any of the classes conflict with a religious holiday that a student wishes to observe, the student must inform the instructor of the conflict no later than two weeks before the scheduled class.
(For further information on Accommodations for Religious Holidays see http://www.uwo.ca/univsec/handbook/appeals/accommodation_religious.pdf)

1. Final Examination:

The final examination will be written CLOSED BOOK. Calculators are not required.

2. Projects and Assignments:

a) Projects:

Three projects will be completed for this class: the News Article Project, a Book/Film Review and a Language/Culture/ ID Topic Presentation.

The News Article Project will involve **4 weekly log submissions** due at the **beginning of Thursday's class** culminating with a reflection piece due on **Tuesday –Oct. TBA.**

In the Book/Film Review project the student will read an international development related book (suggested book list provided), hand in a written report (3-5 pages of content) listing an annotated bibliography of additional research, on a **Thursday –Nov. TBA** and present the ID issue/topic from the book/film in class for 10 minutes on an assigned date.

For the Language/Culture, International Development Topic Presentation, the student will choose a country and ID topic. Then using the guidelines provided, present the information for 25 minutes in class on the date provided.

b) Weekly Assignments and Case Studies:

Assignments and readings for discussions and debates will be handed out weekly on **Thursdays** and will contain:

- i) Case study information, articles, videos etc. to be discussed/debated for the **following Tuesday or Thursday class**

The assignments are intended to broaden students' knowledge of international development topics and assist with class discussion.

Case studies must be read in advance of class and students should prepare adequate notes to guide them in class discussion and debate, and assist them in preparing for guest speakers.

Students are responsible for keeping a copy of their written work.

Please, note that late assignments will be penalized as follows:

Within 24 hrs of deadline 10% will be deducted

Within 48 hrs of deadline 20% will be deducted

Within 72 hrs of deadline 30% will be deducted.

Assignments handed in after 72 hrs have passed from the deadline will not be graded.

3. Class Contribution (excerpt taken from CEE 3328b outline by Dr. J. Gerhard with modifications by C.Gilmore)

As this is a seminar type course, you are expected to contribute to the collective learning of the class. In order to do so, you must prepare the readings/viewings carefully in advance of the class.

During class, you must listen actively to the class conversation, ask questions to your classmates, offer insights, and contribute meaningfully.

It also means that you are respectfully of your classmates and their opinions, are punctual to class, and do not engage in negative or disruptive behaviours.

It is important to discriminate between class participation and contribution. Class participation focuses on you, whereas class contribution focuses on the benefits you accrue to the class.

Your marks for this section will be a combination of daily classroom debates and discussions.

You will be expected to self-evaluate your class contribution and participation (mark out of 10) on a random class basis and submit this mark at the conclusion of class. The course instructor will also be evaluating your contributions out of 10. Your final mark will be the average from all classes.

4. Use of English

In accordance with Senate and Faculty Policy, students may be penalised up to 10% of the marks on all assignments, tests, and examinations for the improper use of English. Additionally, poorly written work with the exception of the final examination may be returned without grading. If resubmission of the work is permitted, it may be graded with marks deducted for poor English and/or late submission.

Plagiarism Checking:

The University of Western Ontario uses software for plagiarism checking. Students are required to submit their Laboratory Reports in electronic form to Turnitin.com for plagiarism checking.

Cheating:

University policy states that cheating is a scholastic offence. The commission of a scholastic offence is attended by academic penalties that might include expulsion from the program. If you are caught cheating, there will be no second warning.

For more information on scholastic offenses, please see:

http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf

Attendance:

Any student who, in the opinion of the instructor, is absent too frequently from class, laboratory, or tutorial periods will be reported to the Dean (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean, the student will be debarred from taking the regular final examination in the course.

Accessibility:

Please contact the course instructor if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

Conduct:

Students are expected to arrive at lectures on time, and to conduct themselves during class in a professional and respectful manner that is not disruptive to others. Late comers may be asked to wait outside the classroom until being invited in by the Instructor. Please turn off your cell phone before coming to a class, tutorial, quiz or exam.

On the premises of the University or at a University-sponsored program, students must abide by the Student Code of Conduct: <http://www.uwo.ca/univsec/board/code.pdf>

Sickness and Other Problems:

Students should immediately consult with the Instructor or Department Chair if they have any problems that could affect their performance in the course. Where appropriate, the problems should be documented (see attached). The student should seek advice from the Instructor or Department Chair regarding how best to deal with the problem. Failure to notify the Instructor or Department Chair immediately (or as soon as possible thereafter) will have a negative effect on any appeal.

For more information concerning medical accommodations, please see:

http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf

Notice:

Students are responsible for regularly checking their email, course website (<https://owl.uwo.ca>) and notices posted outside the Civil and Environmental Engineering Department Office

Consultation:

Students are encouraged to discuss problems with their teaching assistant and/or instructor in tutorial sessions. Office hours will be arranged for the students to see the instructor and teaching assistants. Other individual consultation can be arranged by appointment with the appropriate instructor.

INSTRUCTIONS FOR STUDENTS UNABLE TO WRITE TESTS OR EXAMINATIONS OR SUBMIT ASSIGNMENTS AS SCHEDULED

If, on medical or compassionate grounds you are unable to write term tests or final examinations or complete course work by the due date, you should follow the instructions listed below. You should understand that academic relief will not be granted automatically on request. You must demonstrate to your department (or the Undergraduate Services Office) that there are compelling medical or compassionate grounds that can be documented before academic relief will be considered. Different regulations apply to term tests, final examinations and late assignments. Please read the instructions carefully.

A. GENERAL REGULATIONS & PROCEDURES

1. All first year students will report to the Undergraduate Services Office, SEB 2097, for all instances.
2. If you are an upper year student and you are missing a test/assignment/lab or examination that is worth LESS THAN 10% of your mark, you should report to your department office to request relief. If your course work is MORE THAN 10% of your final grade, you will report to the Undergraduate Services Office, SEB 2097.
3. Check the course outline to see if the instructor has a policy for missed tests, examinations, late assignments or attendance.
4. Documentation must be provided as soon as possible. If no one is available in your department office or the Undergraduate Services Office, leave a message clearly stating your name & student number and reason for your call. The department telephone numbers are given at the end of these instructions.
5. If you decide to write a test or an examination you should be prepared to accept the mark you earn. Rewriting tests or examinations or having the value of a test or examination reweighted on a retroactive basis is not permitted.

B. TERM TESTS

1. If you are in first year and you are unable to write a term test, contact the Undergraduate Services Office, SEB 2097 PRIOR to the scheduled date of the test.
2. If you are an upper year student and you are unable to write a term test, inform your instructor PRIOR to the scheduled date of the test. If the instructor is not available, leave a message for him/her at the department office. If the test is worth LESS THAN 10% of your mark, you should report to your department office to request relief. If the test is worth MORE THAN 10% of your final grade you will report to the Undergraduate Services Office, SEB 2097 to request relief.
3. Be prepared to provide supporting documentation to the Department Chair and/or the Undergraduate Services Office (see next page for information on documentation).
4. Discuss with the instructor if and when the test can be rescheduled. **N.B.** The approval of the Chair or the Undergraduate Services Office is required when rescheduling term tests.

C. FINAL EXAMINATIONS

1. If you are unable to write a final examination, contact the Undergraduate Services Office **PRIOR TO THE SCHEDULED EXAMINATION TIME** to request permission to write a Special Final Examination. If no one is available in the Undergraduate Services Office, leave a message clearly stating your name & student number.
2. Be prepared to provide the Undergraduate Services Office with supporting documentation (see next page for information on documentation) the next day, or as soon as possible (in cases where students are hospitalized). The following circumstances are not considered grounds for missing a final examination or requesting special examinations: common cold, sleeping in, misreading timetable and travel arrangements.
3. In order to receive permission to write a Special Examination, you must obtain the approval of the Chair of the Department **and** the Associate Dean and in order to apply you must sign a "Recommendation for a Special Examination Form" available in the Undergraduate Services Office. The Undergraduate Services Office will then notify the course instructor(s) and reschedule the examination on your behalf.

PLEASE NOTE: It is the student's responsibility to check the date, time and location of the Special Examination.

D. LATE ASSIGNMENTS

1. Advise the instructor if you are having problems completing the assignment on time (**prior** to the due date of the assignment).
2. Be prepared to provide documentation if requested by the instructor (see reverse side for information on documentation).
3. If you are granted an extension, establish a due date. The approval of the Chair of your Department (or the Assistant Dean, First Year Studies, if you are in first year) is not required if assignments will be completed prior to the last day of classes.
4.
 - i) Extensions beyond the end of classes must have the consent of the instructor, the department Chair and the Associate Dean, Undergraduate Studies. Documentation is mandatory.
 - ii) A Recommendation of Incomplete Form must be filled out indicating the work to be completed and the date by which it is due. This form must be signed by the student, the instructor, the department Chair and the Associate Dean, Undergraduate Studies.

E. SHORT ABSENCES

If you miss a class due to a minor illness or other problem, check your course outlines for information regarding attendance requirements and make sure you are not missing a test, laboratory or assignment. Cover any readings and arrange to borrow notes from a classmate.

F. EXTENDED ABSENCES

If you are absent more than one week or if you get too far behind to catch up, you should consider reducing your workload by dropping one or more courses. (Note drop deadlines listed below). You may want to seek advice from your academic counsellor in the Undergraduate Services Office.

G. DOCUMENTATION

If you consulted an off-campus doctor or Student Health Services regarding your illness or personal problem, **you must provide the doctor with a Student Medical Certificate** to complete at the time of your visit and then bring it to the Department (or the Undergraduate Services Office). **This note must contain the following information: severity of illness, effect on academic studies and duration of absence. Regular doctor's notes will not be accepted; only the Student Medical Certificate will be accepted.**

In Case of Serious Illness of a Family Member: Provide a Student Medical Certificate to your family member's physician to complete and bring it to the Department (or the Undergraduate Services Office if you are in first year).

In Case of a Death: Obtain a copy of the death certificate or the notice provided by the funeral director's office. You must include your relationship to the deceased and bring it to the Department (or the Undergraduate Services Office if you are in first year).

For Other Extenuating Circumstances: If you are not sure what documentation to provide, ask the Departmental Office (or the Undergraduate Services Office if you are in first year) for direction.

Note: Forged notes and certificates will be dealt with severely. To submit a forged document is a scholastic offence (see below).

H. ACADEMIC CONCERNS

1. You need to know if your instructors have a policy on late penalties, missed tests, etc. This information may be included on the course outlines. If not, ask your instructor(s).
2. **You should also be aware of attendance requirements in some courses. You can be debarred from writing the final examination if your attendance is not satisfactory.**
3. If you are in academic difficulty, check out the minimum requirements for progression in the calendar. If in doubt, see your academic counsellor.

Calendar References: Check these regulations in your 2018 Western Academic Calendar available at www.westerncalendar.uwo.ca.

Absences Due to Illness:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12

Academic Accommodations for Students with Disabilities:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_10

Academic Accommodations for Religious or Holy Days:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_16

Course Withdrawals:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=6&SelectedCalendar=Live&ArchiveID=#Page_75

Examinations:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=5&command=showCategory&SelectedCalendar=Live&ArchiveID=#Page_75

Scheduling of Term Assignments:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=5&SelectedCalendar=Live&ArchiveID=#SubHeading_78

Scholastic Offences:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_20

Student Medical Certificate: <https://www.eng.uwo.ca/files/undergraduate/forms/smc.pdf>

Engineering Academic Regulations:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=4&SelectedCalendar=Live&ArchiveID=#Page_86

Note: These instructions apply to all students registered in the Faculty of Engineering regardless of whether the courses are offered by the Faculty of Engineering or other faculties in the University.

Add Deadlines:

First term half course (i.e. “A” or “F”)	September 14, 2018
Full courses and full-year half course (i.e. “E”, “Y” or no suffix)	September 14, 2018
Second term half course (i.e. “B” or “G”)	January 15, 2019

Drop Deadlines:

First term half course (i.e. “A” or “F”)	November 12, 2018
Full courses and full-year half courses (i.e. “E”, “Y” or no suffix)	November 30, 2018
Second term half or second term full course (i.e. “B” or “G”)	March 7, 2019

Contact Information:

Undergraduate Services Office:	SEB 2097	Telephone: (519) 661-2130	E-mail: engugrad@uwo.ca
Dept. of Chemical and Biochemical Engineering & Green Process Engineering:	TEB 477	Telephone: (519) 661-2131	E-mail: cbeugrad@uwo.ca
Dept. of Civil and Environmental Engineering:	SEB 3005	Telephone: (519) 661-2139	E-mail: civil@uwo.ca
Dept. of Electrical and Computer Engineering, Software Engineering & Mechatronics Engineering:	TEB 279	Telephone: (519) 661-3758	Email: eeugrad@uwo.ca
Dept. of Mechanical and Materials Engineering:	SEB 3002	Telephone: (519) 661-4122	E-mail: mmeundergraduate@uwo.ca