



Fluid Mechanics

SECTION I: Course Overview

UNH Course Code: CHE350CDG

Subject Areas: Engineering, Chemical Engineering

Prerequisites: Engineering Mathematics (differential and integral calculus; ordinary differential equations; elementary ideas in vectors like dot products, surface integrals, and volume integrals)

Language of Instruction: English

Contact Hours: 60

Recommended Credits: 4

COURSE DESCRIPTION

The overall aim of the course is to introduce students to the physical phenomena of fluid flow and the building of mathematical models of such phenomena. Initial classes are devoted to a comprehensive introduction to fluid mechanics while subsequent classes will focus on applications in chemical engineering. This course will discuss the principles of fluid mechanics as applied to engineering, including aspects such as fluid statics, pressure distribution, and buoyancy. The basic conservation laws of mass, momentum, and energy are analyzed in control volume and differential form. Students will gain an understanding of the Bernoulli equation, pipe flows, flow meters, pumps and compressors, irrotational flows, boundary layer theory, drag force on particles, non-Newtonian fluids. Further they will learn about fluidization, bubble mechanics, flow through porous media, packed beds and fluidized bed as well as filtration.

LEARNING OBJECTIVES

- Develop practical problem solving skills in fluid mechanics through applied mathematics
- Manage mathematical models and solve problems involving various fluid flow situation
- Identify, formulate, and solve engineering problems by using techniques, skills, and modern engineering tools necessary for engineering practice
- Define shear stress, shear rate, and absolute viscosity and identify common classes of fluids
- Write and apply macroscopic mass, energy, and momentum balances on chemical engineering flow processes and systems
- Use differential mass and momentum balance equations to understand pressure and velocity variations
- Use the Navier-Stokes equations and equation of continuity to evaluate shear stress profile, velocity profile, and friction factor for simple one-dimensional flows
- Use Bernoulli equation and macroscopic energy balance to evaluate frictional factor, pressure drop, and size in common fluid flow devices (e.g. pumps, piping, valves)
- Describe boundary layer development for flow over a flat plate, including velocity profile and boundary layer thickness as well as describe the phenomenon of pipe entrance length

- Apply the concept of drag coefficients to evaluate the drag force and settling velocity for spherical and non-spherical particles
- Compute the pressure drop through a packed bed and estimate the minimum fluidization velocity
- Understand the different physical behavior between Newtonian and Non-Newtonian fluids
- Develop an awareness of design criteria and relevant variables which are characteristic for engineering applications
- Analyze flow situations and use appropriate methods to obtain quantitative information for engineering applications.
- Develop creative thinking in solving engineering problems
- Improve competence in effective presentation of technical subjects using verbal, graphical, and written forms of communication

SECTION II: Instructor & Course Details

INSTRUCTOR DETAILS

Name:	TBD
Contact Information:	TBD
Term:	Semester

INSTRUCTIONAL FORMAT

This course will meet twice per week for 1 hour and 40 minutes for a total of 30 class sessions.

FORMS OF ASSESSMENT

The instructor will use numerous and differentiated forms of assessment to calculate the final grade you receive for this course. For the record, these are listed and weighted below. The content, criteria and specific requirements for each assessment category will be explained in greater detail in class. However, you must complete all grading assessment categories to receive a grade for this course. In addition, your work and behavior in this course must fully conform to the regulations of the [CEA Academic Integrity Policy](#) to which you are subject. Finally, all formal written work you carry out in this course (research papers, projects, studies, etc.) must be submitted in electronic format. Your instructor may also require that you hand in a hard copy of such work.

Class Participation	10%
Homework	30%
Midterm Examination	20%
Final Examination	40%

ASSESSMENT OVERVIEW

Class Participation (10%): This grade will be calculated to reflect your participation in class discussions, your capacity to introduce ideas and thoughts dealing with the texts, your ability to use language effectively, and to present your analysis in intellectual, constructive argumentation.

When determining your class participation grade, traditional criteria such as material preparation, completed reading before class, and collaborative group work are all evaluated. But it is the active, meaningful and informed verbal and written contribution that you make that is most important to your overall participation grade. Indeed, willingness to share views in classroom discussions and the insightfulness of your comments and questions about assigned readings will all be taken into account when evaluating your participation.

Additionally, it is important to demonstrate a positive and supportive attitude to the instructor and your classmates, and give full attention to class activities (i.e., cell-phones off, laptop for notes only, not sleeping or distracted, etc.). Whereas attendance and punctuality are expected and will not count positively towards

the grade, laxity in these areas will have a negative effect. The instructor will use the following specific criteria when calculating your class participation grade:

Criteria for Assessing Class Participation	Grade
You make major and original contributions that spark discussion, offering both critical and analytical comments clearly based on readings and research and displaying a working knowledge of theoretical issues.	A+ 9.70-10.00
You make significant contributions that demonstrate insight as well as knowledge of required readings and independent research.	A-/A 9.00-9.69
You make useful contributions and participate voluntarily, which are usually based upon some reflection and familiarity with required readings.	B/B+ 8.40-8.99
You make voluntarily but infrequent comments that generally reiterate the basic points of the required readings.	C+/B- 7.70-8.39
You make limited comments only when prompted and do not initiate debate or show a clear awareness of the importance of the readings.	C 7.40-7.69
You very rarely make comments and resist engagement with the subject, attending class having manifestly done little if any preparation.	D+/C- 6.70-7.39
You are unable to make useful comments and contributions, being occasionally absent from, generally passive in, and unprepared for class.	D-/D 6.00-6.69
You make irrelevant and tangential comments disruptive to class discussion, a result of frequent absence and complete un-preparedness.	F Below 6.00

Homework (30%): During the course, three homework assignments will be given for different sets of topics. A maximum of 10% of the total score will be awarded for each completed homework assignment that is turned in on time.

Midterm Examination (20%): The midterm exam consists of selected-response items covering course contents from the first half of the term.

Final Examination (40%): The final exam consists of selected-response items covering all course contents.

WORKLOAD EXPECTATIONS

In conformity with CEA policy, all students are expected to spend at least two hours of time on academic studies outside of, and in addition to, each hour of class time.

CEA GRADING SCALE

Your grades will be calculated according to CEA's standard grading scale, which is as follows:

CEA Grading Scale				
Letter Grade	Numerical Grade Low Range (0 – 10)	Numerical Grade High Range (0 - 10)	Percentage Range	Quality GPA Points
A+	9.70	10.00	97.0 - 100%	4.00
A	9.40	9.69	94.0 - 96.9%	4.00
A-	9.00	9.39	90.0 – 93.9%	3.70
B+	8.70	8.99	87.0 – 89.9%	3.30
B	8.40	8.69	84.0 – 86.9%	3.00
B-	8.00	8.39	80.0 – 83.9%	2.70
C+	7.70	7.99	77.0 – 79.9%	2.30
C	7.00	7.69	70.0 – 76.9%	2.00

D	6.00	6.99	60.0 – 69.9%	1.00
F	0.00	5.99	0 - 59.9%	0.00
W	Withdrawal			0.00
INC	Incomplete			0.00

CEA ATTENDANCE POLICY

Every student is expected to attend all scheduled class sessions (including field studies), arriving on time, and thoroughly prepared for the day’s class activities. CEA instructors compile regular attendance records for every course and take these records into account when evaluating student participation and overall course performance.

In this course, students are allowed to have the following number of absences due to sickness, personal emergency, inevitable transport delay, and other related impediments:

Courses that meet X days per week	Allowed absences	Automatic failing grade at X th absence
SEMESTER		
Courses that meet 2 days per week	2	8

No documentation is required for such absences, as CEA does not distinguish between excused or unexcused absences. For every additional absence beyond the allowed number, the final course grade will drop down to the subsequent letter grade (e.g., A+ to A). The following table below outlines how your absence(s) will impact your overall grade:

Absence	1	2	3	4	5	6	7	8
Penalty	No Penalty	No Penalty	1/2 letter grade	1 full letter grade	1.5 letter grades	2 full letter grades	2.5 letter grades	Automatic Failure
Grade	A+	A+	A	A-	B+	B	B-	F

Late arrivals or early departures from class can result in being marked absent. Furthermore you must maintain full-time student status by enrolling and regularly attending at least 12 credit hours per week for the duration of the semester. Consequently, CEA will dismiss from all CEA courses, programs, activities and housing any student who fails to maintain satisfactory academic progress or full-time student status.

Late arrivals or early departures from class can result in being marked absent. Furthermore, to comply with UNH, CEA and in country immigration regulations, you must maintain full-time student status by enrolling and regularly attending at least 12 credit hours per week for the duration of the semester. Consequently, CEA will dismiss from all CEA courses, programs, activities and housing any student who fails to maintain satisfactory academic progress or full-time student status.

Examinations will not be rescheduled except in cases of genuine emergencies. Pre-arranged travel or anticipated absence does not constitute an emergency situation. Authorizing make-up examinations is at the discretion of the onsite Academic Director.

REQUIRED READINGS

Listed below are the required course textbooks and additional readings. Whether you buy your books from our locally affiliated merchants or whether you acquire these before arrival, you must have constant access to these resources for reading, highlighting and marginal note-taking. It is required that you have unrestricted access to each. Additional copies will be placed on reserve in the Academic Affairs office for short-term loans. Access to additional sources required for certain class sessions will be provided in paper or electronic format consistent with applicable copyright legislation. In addition, the Academic Affairs Office compiles a bank of detailed information about the many libraries, documentation centers, research institutes and archival materials located in the host city and accessible to CEA students. You will be required to use these resources throughout your studies. Direct access to additional resources and databanks are available to you through the online library of the University of New Haven. The required text for this course is:

Wilkes, James O., (2006), *Fluid mechanics for chemical engineers*, 2nd ed., with microfluidics and CFD, Pearson Education, Inc.

RECOMMENDED READINGS

R. B. Bird, W. L. Stewart and E. L. Lightfoot, *Transport Phenomena* (2nd edition), Wiley Singapore (2002).

M. M. Denn, *Process Fluid Mechanics*, Prentice Hall (1980).

ADDITIONAL RESOURCES

UNH ONLINE LIBRARY: As part of this program, you are provided with direct access to additional resources and databases available through the online library of the University of New Haven. To access the online UNH library, go to <http://www.newhaven.edu/library/Services/CEA/>

Students at CEA Study Abroad Centers have access to the several online research databases through the University of New Haven Library for the purposes of research. Access to these online databases is granted only during the time of enrollment, requires the use of a UNH ID number, which is issued individually to all Study Abroad Center students at the start of the semester. Access to the UNH Library is available through the *MyCEA Account*. You must comply with UNH policies with regard to library usage. Policies can be found at: <http://www.newhaven.edu/library/general/Policies/>

CEACLASSROOM – CEA'S MOODLE CMS: CEA instructors use the open source course management system (CMS) called Moodle that creates an interactive virtual learning environment for students and educators alike. This web-based platform provides you with 24/7 access to the course syllabus, daily schedule of class lectures and assignments, non-textbook required readings, and additional resources directly related to your studies. Moodle includes the normal array of forums, up-loadable and downloadable databases, wikis, and related academic support designed for helping you achieve the many course learning objectives. The ceaClassroom website is located here: <https://www.ceaClassroom.com/>

During the first week of class, the CEA academic staff and instructors will provide you with log-in information and corresponding passwords to access this site. They will also help you navigate through the many functions and resources Moodle provides. While you may print a hard copy version of the syllabus that is projected on the first day of class, it is the class schedule on Moodle that is the definitive and official one, given that the instructor will be announcing updates and additions there and nowhere else. It is your responsibility to ensure that you have access to all Moodle materials related to your course and that you monitor Moodle on a daily basis so as to be fully informed of required course assignments and any scheduling changes that might occur.

COURSE CALENDAR
Fluid Mechanics

Session	Topic	Activity	Student Assignments
1	Introduction to the course Overview of syllabus Classroom Policies	In class presentation	
2-3	Fluid Mechanics in Chemical Engineering, Stresses, Pressure, Velocity, Physical Properties—Density, Viscosity, and Surface Tension	Lecture and Discussion	Wilkes, pp. 3-25
4-5	General Conservation Laws, Mass, Energy Balance, Bernoulli's Equation	Lecture and Discussion	Wilkes, pp. 55-77
6-7	Momentum Balance, Pressure, Velocity, and Flow Rate Measurement	Lecture and Discussion	Wilkes, pp. 78-96
8-9	Models for Shear Stress, Piping and Pumping Problems, Flow in Noncircular Ducts	Lecture and Discussion	Wilkes, pp. 129-155
10-11	Compressible Gas Flow in Pipelines, Compressible Flow in Nozzles, Pumps and Compressors	Lecture and Discussion	Wilkes, pp. 156-163; 188-193

The instructor reserves the right to make changes or modifications to this syllabus as needed

COURSE CALENDAR
Fluid Mechanics

12-13	Drag Force on Solid Particles in Fluids, Flow Through Packed Beds, Filtration	Lecture and Discussion	Wilkes, pp. 194-214
14	Fluidization, Cyclone Separators, Sedimentation,	Lecture and Discussion	Wilkes, pp. 215-223
15	Midterm exam		
16-17	The Convective Derivative, Differential Mass Balance, Differential Momentum Balances, Newtonian Stress Components in Cartesian Coordinates	Lecture and Discussion	Wilkes, pp. 266-285
18-19	Rotational and Irrotational Flows, Steady Two-Dimensional Irrotational Flow, Examples of Planar Irrotational Flow	Lecture and Discussion	Wilkes, pp. 356-378
20-21	Uniform Streams and Point Sources, Doublets and Flow Past a Sphere, Single and Two-Phase Flow in Porous Media	Lecture and Discussion	Wilkes, pp. 380-396

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COURSE CALENDAR
Fluid Mechanics

22-23	Simplified Treatment of Laminar Flow Past a Flat Plate, Simplification of the Equations of Motion, Blasius Solution for Boundary-Layer Flow, Turbulent Boundary Layers	Lecture and Discussion	Wilkes, pp. 414-432
24-25	Boundary-Layer Separation, Polymer Processing, Thin Films and Surface Tension	Lecture and Discussion	Wilkes, pp. 433-458
26-27	Rise of Bubbles in Unconfined Liquids, Pressure Drop and Void Fraction in Horizontal Pipes, Two-Phase Flow in Vertical Pipes	Lecture and Discussion	Wilkes, pp. 531-554
28-29	Introduction to Fluidization, Bubble Mechanics, Classification of Non-Newtonian Fluids	Lecture and Discussion	Wilkes, pp. 559-572; 591-594
30	Final exam		Final exam covering all material in the course.

The instructor reserves the right to make changes or modifications to this syllabus as needed

SECTION III: CEA Academic Policies

CEA is committed to providing excellent educational opportunities to all students. The policies outlined in this section outline general expectations for CEA students. Please carefully review the relevant course policies outlined below to ensure your success in this course and during your time abroad.

Furthermore, as a participant in the CEA program, you are expected to review and understand all [CEA Student Policies](#), including the academic policies outlined on pages 19-23 of this document. CEA reserves the right to change, update, revise or amend existing policies and/or procedures at any time.

A. CLASS/INSTRUCTOR POLICIES

PROFESSIONALISM AND COMMUNICATIONS: As a student, you are expected to maintain a professional, respectful and conscientious manner in the classroom with your instructors and fellow peers. Following class policies as outlined in the sections below set the general expectations for your behavior and performance in CEA classes.

You are expected to take your academic work seriously and engage actively in your classes while abroad. Advance preparation, completing your assignments, showing a focused and respectful attitude are expected of all CEA students. In addition, expressing effective interpersonal and cross-cultural communication is critical to your success. Demonstrating your effort to do the best work possible will be recognized, whereas unconstructive arguments about grades, policies, procedures, and/or trying to get out of doing required work will not be tolerated. Simply showing up for class or meeting minimum outlined criteria will not earn you an A in this class. Utilizing formal communications, properly addressing your faculty and staff, asking questions and expressing your views respectfully demonstrate your professionalism and cultural sensitivity.

ARRIVING LATE / DEPARTING EARLY FROM CLASS: Consistently arriving late or leaving class early is disruptive and shows a lack of respect for instructor and fellow students. For persistently missing class time, the instructor deducts percentage points from the overall participation grade as indicated earlier in the syllabus. Missing a significant portion of one of your classes may constitute a full day's absence. If you arrive late due to serious and unforeseen circumstances, or if you must leave class early due to illness or emergency, you must inform the instructor immediately. The instructor will determine if the amount of class time missed constitutes an absence.

SUBMITTING WORK: All formal written work you carry out in this course (research papers, projects, studies, etc.) must be submitted in electronic format. Your instructor may also require that you hand in a hard copy of your work in class. You should keep copies of your work until your academic records have been recorded at your home institution, which may take 3 – 12 months after the completion of your program. As a student, you are responsible for providing copies of your work in the event of grade appeals, credit transfer requirements, faculty requests, etc.

LATE HOMEWORK: Homework is due at the specified date and time stated by your instructor. Late homework may not be accepted and/or points may be deducted as a result. Typically, homework submitted several days after the deadline, with no previous discuss with your instructor will not be accepted. It is up to your instructor's discretion to determine penalties for homework submitted after the deadline.

EXTRA CREDIT: Individual student requests for extra credit are not permitted. Extra credit for students' who miss classes, quizzes, exams is not available in any circumstance. Typically, extra credit will not be awarded, however, in the special event your instructor determines extra credit is available for the class, it is up to his/her discretion on how and when to award opportunities for credit. Under no circumstance will extra credit exceed more than 5% of your overall course assessment.

SECTIONS: Students must attend the class section they are registered in and may not switch sections for any reason. Students who turn up in a section of a class they are not registered in will not be able to stay for the lesson and will not be considered present unless they attend their assigned section that week.

MAKE-UP CLASSES: CEA reserves the right to schedule make-up classes in the event of an unforeseen or unavoidable schedule change. All students are expected to attend any make-up classes and the standard attendance policy will apply. Make-up classes may be scheduled outside of typical class hours, as necessary.

MISSING EXAMINATIONS: Examinations will not be rescheduled. Pre-arranged travel or anticipated absence does not constitute an emergency and requests for missing or rescheduling exams will not be granted.

USE OF CELL PHONES, LAPTOPS AND OTHER ELECTRONIC DEVICES: Always check with your faculty about acceptable usage of electronic devices in class. Devices may be used during class breaks and before/after official class times only. Students who create a disturbance or fail to pay attention in class due to electronic devices, will receive a warning and must immediately put devices away unless otherwise instructed by your professor. Inappropriate usage of your electronic devices or repeat warnings will result in a warning and may lead to a deduction in participation grades and/or class dismissal. Any students asked to leave class will be counted absent for the day.

Cell Phones: Use of a cell phone for phone calls, text messages, emails, or any other purposes during class is impolite, inappropriate and prohibited. Students are asked to show common courtesy to others in order to create a positive learning environment and eliminate distractions for everyone. Cell phones, tablets, watches and other electronic devices are to be turned off or silenced (do not set to vibrate) and placed in your purse, backpack, briefcase, etc. during class and any parts of the course including guest lectures, academic excursions, site visits and so on.

Laptops: Faculty determine whether laptops will be allowed in class. The use of a laptop may be limited to specific purposes including note taking, as allowed by special needs/academic accommodations, and/or at the discretion of the instructor. The use of a laptop is prohibited during all tests and quizzes, unless otherwise specified by your instructor. If you have any questions, check with your instructor.

ACTIVE LEARNING - ACADEMIC EXCURSIONS, FIELD TRIPS, SITE VISITS, GUEST LECTURES, ETC:

Students will have the opportunity to participate in a variety of experiential learning activities throughout the course. These activities may take place during regular class hours, or they may be scheduled outside class hours on occasion. Students should be mindful to arrive well prepared and on time for these activities and be engaged and respectful as it is a privilege to be invited to these visits and meet with local experts. Disrespectful behavior will result in a warning and/or dismissal from the activity and may result in a grade deduction or absence for the class period.

GRADE DISPUTES: Any questions about grades or grade dispute you encounter in this course must immediately be discussed with the instructor and resolved onsite before the last week of class. Only end-of-term assignments graded after the end of your program are subject to CEA's formal grade appeal procedure. For more information, see *CEA Academic Policies* at http://www.ceastudyabroad.com/docs/CEA_Policies.pdf.

B. CEA GENERAL ACADEMIC POLICIES

COURSE REGISTRATION: It is your responsibility as a student to ensure that your course registration records are accurate for all enrolled courses throughout the semester. At the beginning of the semester and at the end of course registration, check your *MyCEA Account* to ensure you are properly enrolled in all of your desired courses. If a course is missing or an additional course is present, you must resolve with CEA academic staff immediately.

ADD/DROP POLICIES: Students may make changes to registration once onsite, as long as full-time student status is maintained (12 credit hours in the semester) and academic program requirements are maintained. All changes must be made at the start of each term during the designated Add/Drop Period, which concludes at the end of the first week of classes during a semester or on the second day of classes during

summer programs. Some limitations may apply. You are responsible for notifying your home institution of any schedule changes.

COURSE WITHDRAWAL: Students wishing to withdraw from a course may do so until the Course Withdrawal Deadline, which is the end of the fourth week of classes in a semester or the end of the first week of classes in a summer program. Course withdrawal requests approved during this timeframe will appear as a “W” on the academic transcript. To request a withdrawal, you must complete the *Change of Course Petition Form* and submit to your local academic staff. You must also notify your instructor in writing of your intent to withdraw from the course. You must remain academically eligible as a full-time student. No tuition or course fee refunds will be granted for approved withdrawals.

MONITORING GRADES AND ATTENDANCE: You are responsible for monitoring your grades and attendance records throughout the course. Any questions or concerns should be discussed immediately with your instructor and/or local academic staff. Your grades and attendance records can be accessed via your *MyCEA Account* online at any time throughout the semester.

ACADEMIC INTEGRITY: CEA is an academic community based on the principles of honesty, trust, fairness, respect and responsibility. Academic integrity is a core value which ensures respect for the academic reputation of CEA, its students, faculty and staff. CEA expects that you will learn in an environment where you work independently in the pursuit of knowledge, conduct yourself in an honest and ethical manner and respect the intellectual work of your peers and faculty. Students, faculty and staff have a responsibility to be familiar with the definitions contained in, and adhere to, the CEA Academic Integrity Policy.

For the complete policies, please see the Academic Integrity Policy in its entirety by visiting http://www.ceastudyabroad.com/docs/GC_Academic_Integrity_Policy.pdf.

Violations of CEA’s Academic Integrity Policy may result in serious consequences, including program dismissal. CEA also reserves the right to share information of such violations with your home institution.

SPECIAL ACCOMMODATIONS: CEA is supportive of students with the need for special accommodation(s) on its study abroad programs. In order to accommodate special requests, students must notify CEA in advance and provide documentation no later than one week from the start of classes. Students requesting special accommodation(s) must submit CEA’s Special Accommodation(s) Form. CEA will review requests to determine what accommodation(s) can be granted. The extent to which accommodations can be provided depends on the nature of the accommodation needed, the general situation in the host country regarding accessibility and available services and costs of services. Late requests are subject to review, and CEA may not be able to provide accommodations. Retroactive requests for accommodations will not be considered. Additional details can be found: <http://www.ceaStudyAbroad.com/docs/CEA-DisabilityPolicy.pdf>

RELIGIOUS HOLIDAYS: CEA is sensitive to, and supportive of, the fact that faculty, staff and students constitute a rich mixture of religious and ethnic groups. CEA recognizes that many religious holidays merit or require absence from class. To strike a reasonable balance between accommodating religious observance and meeting academic needs and standards, CEA instructors will make reasonable accommodation when a student must miss a class, exam or other academic exercise because of a required religious observance, when the instructor/Academic Office is informed of the specific instance in need of accommodation within the first two weeks of the semester course, or by the end of the second class meeting of summer or short session. Students must submit any missed work in advance of the holiday and will be required to make up missed class time through alternate assignments to receive full credit for time out of class. Students must submit a written request for religious accommodations using *CEA’s Religious Observance Request Form* in the timeline stated above for full consideration.

ACADEMIC ELIGIBILITY: You must remain academically eligible to participate in CEA classes. Factors determining eligibility are outlined in [CEA Student Policies](#), including: full-time status, satisfactory academic progress and complying with academic and attendance policies. Whether you plan to transfer letter grades back to your home institution or not, CEA expects that you will complete all graded assessment categories in each course in which you are enrolled. Failure to complete course requirements will result in grade penalties, and may lead to academic probation and/or program dismissal if you are unable to maintain satisfactory academic progress or full-time student status in your program.

EARLY PROGRAM DEPARTURE: CEA does not allow early program departures. Students departing the study abroad program prior to the end date remain subject to all course policies, including attendance. Assignments, presentations, examinations, or other work will not be rescheduled for voluntary early program departures. In the event of an emergency in which a student is unexpectedly unable to complete the program, students may submit a request for *Leave of Absence or Program Withdrawal* using the appropriate form for CEA review and approval. Contact CEA academic staff to request these forms.

COURSE AND INSTRUCTOR EVALUATIONS: Students will have the opportunity to evaluate both the class and the instructor at the conclusion of the course. Your constructive participation in the evaluation process is important and appreciated.

TRANSCRIPTS: CEA transcripts for this course will be available approximately 90 days from your program completion.

APPEALING A GRADE: Students who decide to appeal a course grade must do so within the **60-day period** following the end of your academic program (or, for academic year students, the end of the semester in which the course was taken). Upon receiving course grades through the *MyCEA Account*, you may initiate the appeal process by filling out and submitting to Academics@ceastudyabroad.com and your onsite academic staff the CEA Grade Appeal Application form.

The grade appeal must concern an end-of-semester form of assessment calculated after the Program End date. It is your responsibility to address all interim grading issues directly with your instructor(s) while onsite. The appeal procedure and the grade re-evaluation it requires do not guarantee a change in grade and could result in an increase, no change, or decrease in the final grade. Any change is subject to a ruling by the course instructor, in consultation with the Academic Dean, and must be based on the academic evidence provided by you to support the appeal. Keep in mind that you may need to submit copies of your work, emails to/from faculty if you are disputing a grade. We recommend keeping records of your work and communications for 3 – 12 months after program completion, until your academic records have been recorded at your home institution.

Upon receiving the results of the review and the decision of the instructor, CEA staff will inform you of the outcome of the appeal. Students who decide to submit a secondary appeal must submit a *Grade Appeal Review Petition* to the Department of Academic Affairs at Academics@ceastudyabroad.com within 15 days of being informed of the initial appeal decision. Secondary appeals will be reviewed by CEA's Academic Review Board. All decisions from the Academic Review Board are final.

A FULL LIST OF CEA POLICIES IS AVAILABLE ONLINE:
http://www.ceastudyabroad.com/docs/CEA_Policies.pdf