# New Instructor Kit

**Summer 2017**

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Support for Your Courses, Continued

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Part 1:
Principles for Effective Classroom Teaching
How would you describe the relationship between teacher and learner?
*I think of teaching and learning as a partnership.*

What is the nature of the partnership?
How do we as teachers make the partnership work?
What do teachers need to bring to the partnership?

What are the qualities of a Teaching partner?
1. Teachers need knowledge mastery -- Sure we need to know and understand our subject areas, but how does that promote student learning?

A dominant theory of learning is that knowledge is constructed, personally.
What knowledge do you want your students to construct?
*Please think about one or two learning goals you have for your students.*

If knowledge is constructed, personally, how does this theory impact our role as a teacher, as a learning partner to help students achieve a learning goal?
*I think the theory of knowledge construction means that we can not just handover knowledge to our students. We present information and challenges and guide students as they make connections in their brains, as they take information and make meaning.*

How do we guide students as they construct their own knowledge?
How will learning occur in your classroom? Teacher / Learner -- who needs to perform?

*I want to propose that much of our ‘performance’ starts before the class starts we are the play/screenwriter). Once the class starts the students are the ones that need to perform; you are the director guiding their performances. So to start planning your course, think backwards!*

from Ken Bain’s book ‘What the Best College Teachers Do.’
“The best teachers plan their courses backward, deciding what students should be able to do by the end of the semester, they map a series of intellectual developments through the course ....”

Content knowledge is important but it is more important to design the learning experience around what you want students to be able to do (with this knowledge) by the end of the course. Doing things with the knowledge helps students make connections.
To circle back to the qualities of a Teacher/learning partner
1. Teachers need knowledge mastery
2. Teachers need to be able to think about how students can construct their own knowledge (and be able to use it) with our help--by designing learning activities and offering feedback

Well designed learning activities might:
* help students consolidate their thoughts
* challenge their assumptions
* highlight a gap in their knowledge
* encourage them to go beyond the lecture/textbook
* ask them to use the information in novel ways
* provide opportunities to interact in meaningful ways with other students

When creating activities be mindful of Bloom’s taxonomy of learning (1956)

<table>
<thead>
<tr>
<th>Higher levels of cognitive engagement</th>
<th>Lower levels of cognitive engagement</th>
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<tbody>
<tr>
<td>Create</td>
<td>Recall/remember</td>
</tr>
<tr>
<td>Evaluate/Compare/Judge</td>
<td></td>
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<tr>
<td>Analyze</td>
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<tr>
<td>Apply/Use</td>
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<td>Understand</td>
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<td>Recall/remember</td>
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Students that engage with the material and work at a variety of cognitive levels will learn more deeply and retain what they have learned longer. So as teachers we need to think of activities that requires them to deal actively with the course material at a variety of cognitive levels.

Learner’s Perspective
It is also important to think about the learner. In his book “Creating Significant Learning Experiences” Dee Fink (2003) suggests a different taxonomy one for “Significant learning”. He posits that for there to be significant learning we need to consider:

**Foundational Knowledge** – what are the key facts you want students to master in your course.

**Application** – how will students use the foundational knowledge (beyond your tests). Projects or project like assignments are often very good and meaningful ways for students to develop skills in using information.
Integration - Learning will be most meaningful if it can be linked to prior knowledge and to different realms - i.e. linking their new knowledge to the world around them. Projects, class discussions, reflective and forward-thinking writing can help students make these connections.

Human Dimension - How does the work in your class drive students to learn about themselves as they are at the moment and give them a sense of what they can become?

Caring - Learning that sparks an interest and drives students to care about an issue can give them the energy needed to do the hard work of learning. It also helps them see themselves as capable of being a part of solving the world’s problems.

Learning How to Learn - Well-designed courses are mindful of helping students think explicitly about the skills they will need to complete a particular task, assess their current skill levels and as needed seek the resources to enhance the skills they need to be successful in your assignments.

Please note that this taxonomy of significant learning is not hierarchical; all elements are perceived as equally important.

Here is how Fink sees it. From Dee Fink’s book (2003) Creating Significant Learning Experiences Figure 2.2, page 33:

As well the first three items are quite related to Bloom’s taxonomy.

Foundational Knowledge  Application  Integration
These three items are directly related to Bloom’s taxonomy if we can convince/help the students to apply and integrate

Human Dimension  Caring  Learning How to Learn
these three components can help achieve the first three and transform the learner
Activity

Look at one of the learning goals you wrote down earlier. Think of an assignment or activity for the learning goal that would help students get practice toward achieving this goal.

What will be some of your challenges? One big challenge teachers often face is getting students to really engage with the course activities.

Engagement really relates to both Bloom and Fink’s taxonomies.

From Elizabeth Barkley’s book (2010)
“Engaged students are passionate; they are excited; they are motivated to learn”
“Engaged students are trying to make meaning—i.e. they are trying to construct their knowledge actively.

Engagement that leads to deep learning

An engaged student is
a) motivated to learn (willing to work) and
b) is working hard and effectively with the course material and activities and
c) recognizes when they need help and seeks help in working with the material as they need it.

How do we motivate our students? In education, we often talk about intrinsic motivation and extrinsic motivation.

**Extrinsic motivation** are things like external rewards, external punishments; grades can sometimes seem like an external reward/punishment.

The problem with extrinsic motivation in learning is that it's easy to focus on the reward and the reward becomes the goal and not the learning. Another problem with extrinsic motivation is that if you remove the reward (or the punishment) the motivation may go away. We want learning to be a valued goal in itself. We want it to be intrinsically motivated as much as possible.

**Intrinsic motivation** is based on how satisfied the student feels with the activity:

- How interesting is the activity?
- How valuable is the skill the activity requires?
- How stimulating is the activity?
- Is there an opportunity for fun or social interactions?

Students will be more motivated to engage with an activity if the activity is meaningful to them and if they have some choice (Wlodkowski 1999). If we can make our learning activities and projects
authentic and interesting and even have some fun in it, then we encourage intrinsic motivation. Intrinsic motivation for learning lasts and encourages students to try to achieve mastery.

There is another important part to motivating our students. Many of our learning activities will be challenging. To be motivated to do the hard work, students also need to think they can succeed if they work hard.

Expectancy theory of what is required for motivation; its described by an equation

\[
\text{Motivation} = \text{value} \times \text{expectancy}
\]

For this theory, willingness (motivation) to spend time on a task is related to both the:

1) perceived value of the task itself and the extent that the task is enjoyable and
2) the degree to which the student expects to be able to complete the task (i.e. they have to feel competent to complete the task)

Therefore, another important part of motivating students to do the hard work of your learning activities, is to help them believe they can succeed at the task.

What can we do for this portion of motivation?

For new learning to occur the task must be challenging but not overwhelmingly so. Vygotsky (1978) coined the term ZPD - the zone of proximal development.

ZPD refers to situations created for learning in which students need to grapple with ideas, concepts and problems that are just slightly above their current level of development. For ZPD, the new knowledge has to be just a little stretch for the student, one they can make.

What is one big, obvious challenge for us using ZPD?

For me, one big challenge with ZPD is that I have a big class and students are not all in the same place and some students are more comfortable with challenge than others. For me to use ZPD (make things a little challenging) I need a ‘challenge map’. I need to break one big activity into a series of steps.

Some students may need to start at step 1, then go to 2, then 3 etc. Some students may already have the knowledge needed for steps 1, 2, 3 and they can start at step 4. The trick is to help all students get higher up on the ladder than when the task began.

So besides helping students see the value of the learning activities in our classes, if they are going to be motivated to do the work, we need to create step-wise assignments with each step building student skills and build assignments that can accommodate students with different starting skill levels.

This is challenging!
Cooperative learning can be very helpful in multi-step assignments. Here, more advanced students can be challenged and help other students. But for this group work to be successful, the teacher must serve as guide and one important learning goal has to be the success of the team, not just its individual members. Team building exercises can be built into big team projects.

Each group needs to think of themselves a small **learning community**. Cross (1999) defines a learning community as a group of people engaged in intellectual interactions for the purpose of learning - a group of people with common goals, and responsibility toward one another and the group. To work, students need to feel a sense of belonging and being safe; they can be comfortable responding to questions even if they are unsure of their answer and of seeking help from teacher and peers. Students need to feel connected to each other and the teacher - not isolated.

With that in mind I will end this section on establishing a setting for deep learning with a quote from Parker Palmer’s book, “The Courage to Teach”:

> “Good teachers possess a capacity for connectedness.”

Find your own way to connect your content-expertise to your student’s learning!

**Selected References**

12. Developing Learning Outcomes

GUIDING PRINCIPLES FOR TEACHING

I. SEVEN PRINCIPLES FOR GOOD PRACTICE IN UNDERGRADUATE EDUCATION

By Arthur W. Chickering and Zelda F. Gamson
From The American Association for Higher Education Bulletin, March 1987

1. Encourages Contact Between Students and Faculty - Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans.

2. Develops Reciprocity and Cooperation Among Students - Learning is enhanced when it is more like a team effort that a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's own ideas and responding to others’ reactions sharpens thinking and deepens understanding.

3. Encourages Active Learning - Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives. They must make what they learn part of themselves.

4. Gives Prompt Feedback - Knowing what you know and don't know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves.

5. Emphasizes Time on Task - Time plus energy equals learning. There is no substitute for time on task. Learning to use one's time well is critical for students and professionals alike. Students need help in learning effective time management. Allocating realistic amounts of time means effective learning for students and effective teaching for faculty. How an institution defines time expectations for students, faculty, administrators, and other professional staff can establish the basis of high performance for all.

6. Communicates High Expectations - Expect more and you will get more. High expectations are important for everyone -- for the poorly prepared, for those unwilling to exert themselves, and for the bright and well motivated. Expecting students to perform well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations for themselves and make extra efforts.

7. Respects Diverse Talents and Ways of Learning - There are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learn in new ways that do not come so easily.

Footnote 1: Active learning refers to techniques where students do more than simply listen to a lecture. Students are DOING something including discovering, processing, and applying information. Definition and examples of active learning found at (http://www.teachtech.ilstu.edu/additional/tips/newActive.php) See next page.
II. Active Learning

Active Learning Mini Tutorial and Exercises from 
http://www.teachtech.ilstu.edu/additional/tips/newActive.php

Active learning refers to techniques where students do more than simply listen to a lecture. Students are DOING something including discovering, processing and applying information.

Active learning “derives from two basic assumptions: (1) that learning is by nature an active endeavor and (2) that different people learn in different ways.” Research shows greater learning when students engage in active learning. The elements of active learning are talking and listening, writing, reading and reflecting.

IN-CLASS ACTIVE LEARNING MIGHT INCLUDE:

Clicker responses
Clickers allow students to test their knowledge or give an opinion on an identified topic in a non-threatening, anonymous way. Since clickers must be used in multiple – choice format, it is particularly effective in courses that have a major component of assessment done by multiple choice testing.

One minute papers (turned in with or without names)
Student summarize the most important points of a section of a lecture or Students identify the murkiest point of the lecture.

Think – Pair – Share
Give students a task such as question or problem to solve, an original example to develop, etc. Have them work on this 2 – 5 minutes alone (think). Then have them discuss their ideas 3 – 5 minutes with the student sitting next to them (pair).

Collaborative learning groups
These may be formal or informal, graded or not graded, short- term or long term. Generally, you assign students to heterogeneous groups of 3 – 6 students. They choose a leader and a scribe (note – taker). They are given a task to work on together. Often, student preparation for the CLG has been required earlier (reading or homework).

Student debates
These may be formal or informal, individual or group, graded or not, etc. They allow students the opportunity to take a thesis or position and gather data and logic to support that view critically. Debates also give students experience with verbal presentations. Some faculty members ask students their personal view on an issue and then make them argue the opposite position.

Mini-research proposals or projects; a class research symposium
Have the students work on designing a research study on a topic from the class. In some situations, you may be able to have them collect data during class time (observe some situation or give out some short surveys) or you may have them doing this as part of an outside-of-class project. Either way, have students present their research in a class research symposium similar to what we do at professional meetings. Invite other faculty and students.
Analyze case studies
Bring in case studies for students to read (put a case on an overhead or powerpoint). Have students discuss and analyze the case, applying concepts, data, and theory from the class. They can work as individuals or in groups or do this as a think – pair – share. Consider combining this with a brief in-class writing assignment.

For more tips for strong faculty student interactions see http://www.teaching.utoronto.ca/topics/sfi/resources/interactive.htm
III. EFFECTIVE TEACHING BEHAVIOURS

From Peg Weissinger (Georgetown School of Medicine, Office of Educational Assessment and Evaluation). In her materials, she acknowledges Susan Edington as her source.

Logical Organization: Logical organization refers to the instructor’s ability to design in-class instruction to facilitate learning. This includes the organization of course materials and learning activities to facilitate learning for the student.

Establishing a Learning Set: The instructor’s ability to clarify, communicate, and arouse interest in learning objectives.

Variety of Methods: The instructor’s ability to select and design teaching methods to achieve student objectives.

Variety of Instructional Resources: Variety of instructional resources refers to the instructor’s ability to use and design effective instructional resources to support teacher objectives and student needs.

Asking and Responding to Questions: The instructor’s ability to use appropriate questions for instructional purposes and to answer questions clearly to promote understanding and participation.

Closure: The instructor’s ability to provide a summary experience for the integration of major points at the end of an objective and at the conclusion of a class session.

Classroom Management: The instructor’s skill in performing organizational and administrative tasks that allows the instructor to proceed smoothly and efficiently.

Interpersonal Relations: The instructor’s ability to be available to students and relate to students in a way which promotes mutual respect.

Learning Environment: The instructor’s ability to create an appropriate physical, social, and intellectual environment for maximum student learning.

Student Diversity: The instructor’s ability to recognize and attend to the differing ability, learning style, culture, age, gender, and interests of students.

Classroom Evaluation and Assessment: The instructor’s ability of evaluate and measure student performance.

Value Context: The instructor’s skill in assisting students in the exploration of their own values and in realizing the implications of those values for their professional and private conduct.

Communication Skills: The instructor’s ability to use effective verbal and non-verbal behaviors at a pace, which enhances student learning.

Enthusiasm: The instructor’s ability to convey to students a strong interesting course content and in the students themselves.
Motivation: The instructor’s skills in creating the forces to elicit and continue the student’s desire to learn.

Application and Integration: The instructor’s ability to help students develop critical thinking skills for integrating information for the application in and out of the classroom,

Classroom Discussion: The instructor’s skill in facilitating student involvement in class discussion and in group work or activities.

Creativity: The instructor’s incorporation of opportunities for divergent thinking in solving problems and recognition of creative thought in the classroom.
IV. What Students Say Is Important

From New Faculty Orientation - Student Panel
Highlights of student’s comments Notes (Jemcy/Jemy):

Student 1:

1) **Course calendar** – It’s your bible – You may need to take a Sat night off and just read the front and back of the Calendar, since that is like the “contract” between the university and students. Example: to change course syllabus midway through a semester, you need consent of majority of class.

2) **Answering student queries (in a reasonable time frame)**: In today’s world of super – advanced technology, everything is online. You can anticipate to receive a lot of questions regarding course material, syllabus, exam date, tutorials etc. etc. It might be hard to keep up with emails if you teach a large class. A few suggestions would be: if a lot of students have questions about the same topic, then either through an announcement in class/Intranet announcement, you can address the concerns. Some professors have discussion forums where students can pose questions and either the professor or other students in class answers the questions. Post class announcements on Intranet too in case students miss a lecture.

3) Have sufficient **office hours** (# of hours depends on the course – ex: Math vs. English). Show up for office hours!

4) Be **approachable**. A lot of students, especially first years are scared of professors, but if you are friendly and treat them with respect, it will make life more easier when a student wants to come up to and ask questions.

5) **Familiarity with campus**: It is important for you to know where your classroom is ahead of time. That way you will be there on time (ie, 10 minutes past the hour). Also, know how to operate AV equipment or contact right people if needs arises.

6) **Speak up!** Ensure that you are speaking loud enough such that entire class hears. A lot of complains sometimes centre around students can’t hear the professor.

7) **Course syllabus**: Outline *exactly* what you want students to take away from the course. Be very clear about mark breakdown. Students would greatly appreciate if you provided them with marking rubrics for any major assignments/projects, again, emphasizing the clear expectations.

8) **Lecture notes**: Students would love it if lecture notes are posted ahead of time. Powerpoint slides are preferred since students can choose how they want to print it, or if they bring laptops to class, it is easier for them to annotate slides. It is strongly recommended that you don’t change your slides once you post them because it is annoying for students to follow where the change was made. In some cases, if you do spot mistakes and make changes, do notify the students and make changes on the notes you already posted on Intranet. The slides should not be too wordy, nor too empty such that students are frantically writing down everything that is being said.

9) **Test material**: Test on material that is fair game or what you expect a student to take away from the course; Ex: if quiz on a novel, do not quiz them on what the publisher wrote on the back of the book, unless of course, you let students know that the material is important.

10) **Grading**: a) Exam marker and writer should be the same person (consistency). b) **RETURN GRADES ON TIME.** Could affect students because certain courses are pre-requisites to other courses and students need to know their grades. Also provide sufficient constructive feedback on assignments.
11) **Consistency in grading and teaching:** It is of **utmost** important that there is consistency between the TA’s in the course! Especially when you have many tutorials or labs in a give course (like in large classes), marking and instruction given to students must be consistent. **Make sure that information between TA and professor is correlated!** One of the worst feelings that a student can have is when they find out that their TA gives out very low marks and another TA gives their students very high marks etc.

12) **Workload:** It is recommended by AA & CC to do 2 – 3 hours of studying / hour of lecture / lab / tutorial. So it would be nice if this was followed. Remember, students these days have a lot on their plate. In addition to 4 or 5 courses, many have part time jobs (financial pressures), volunteer work, extracurricular etc that demand so much time; hence overloading is not recommended for the sake of health and well being.

**Other notes:**

*Keep personal and professional lives separate;* do not steer away from the main topic. If you have control over this, avoid as much as possible two professors teaching a class. Different professors have different expectations and this can confuse students. Be very mindful of singling out students in class.

*Use inclusive language:* (ex: NOT “That’s so gay.” OR “That’s so retarded.”)

*Be environmentally friendly:* try to save trees if you intend to print out materials for students (example: double-sided when you print).

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**Student 2:**

**Best things that a UTSC professor could do…**

1) **Being organized.** For example, set clear deadlines/expectations for students. The syllabus should have assignment deadlines and midterm dates. In addition, professors should give students a separate assignment handout with details about the assignment.

2) **Being available to talk to students through email and in person.** For example, being available during office hours and holding extra hours during midterm and exam times.

3) **Understanding that each student has their own needs.** For example, disability needs. There are many students on campus that have disabilities, so I am sure that you may encounter these students. So just be open-minded of the diversity of students on campus so that you can assess them accordingly to their needs.

4) **Also, understand that students have different learning styles.** For participation in class, some students will be shy to participate. Professors have to think of alternate ways for all students to participate. They could have an online discussion forum with course questions for those students who do not speak in class. They can also implement group work as group participation. Alternatively, have students hand in and answer to the professor’s class question at the end of class.

5) **Professors need to be enthusiastic and engaging when lecturing.** This makes students more motivated to learn the material.

6) **Having lecture slides posted online before class is helpful because students can take additional notes in the margins of the slides.**

7) **Give advice to student on how to prepare for midterm and exams.** For example, professors could point out a certain chapter to put emphasis on during studying. This will help students study better and have more success in the course.
Worst things that a UTSC professor could do…

1) Talking through the entire lecture: Student will not engage in lecture this way. Professors need to engage with their students, so both students and professor will learn in a meaningful way. ie: Professors can engage their students by asking them questions such as “What did you think of this passage/chapter?”

2) Not being consistent and reliable. ie: I had one professor who was not reliable because she rarely returned my emails and she kept on changing her office hours and posted them ONLY on her door, without updating the hours on the intranet, which is frustrating. However, being consistent and reliable will make both professor and student have a better relationship and it will better accommodate the student.

3) Regurgitation of the textbook: Professors should be able to demonstrate their knowledge and explain it in their own words, so that students can learn better.

Student 3:

My name is Charmaine and I am a third-year student completing a double major in English and Music. There are many traits which make up for an effective Professor. I have always been captivated by a Professor who is able to offer information in an entertaining way. A lecture is not about talking AT the student. Engaging students with jokes, or even walking while speaking is far more effective than talking for three hours straight.

Be there for your students! Seeing my Professors in the Tim Horton’s line or at an event is the best way to break boundaries between students and faculty and it helps students understand that Professors are approachable.

Grades. It is what 99.9% of university students think about on a regular basis. Returning marked assignments with constructive and through feedback is so important and motivates students to strive for achievement.

UTSC is a phenomenal place. We are the meeting place of great minds where students and faculty are colleagues. Respect is a two-way path and something that everyone else deserves. Lastly, being friendly. Some of my favorite Professors are those who keep in contact with me, who joke around and laugh with me. Those are the professors I will never forget and the ones who I respect the most.
Teaching at UTSC: Partners, Rules, Conventions

Key support services for students and faculty are available on this campus, throughout the year. You have met many of these people: AccessAbility Services, Academic Advising & Career Counseling (AA&CC), Centre for Teaching and Learning (CTL), Dean's Office, Departmental Assistants and Chairs, Information and Instructional Technology (IITS), Health and Wellness, and Student Life.

The Registrar's Office does the scheduling for courses, including a few last-minute room changes (for over- or undersubscribed courses). You can find classroom specifications (AV set up, room capacity, picture) on their website; the Information and Instructional Technology Unit supports the audiovisual equipment and classroom support (with a phone line in classrooms).

Check out your course’s infrastructure before classes begin: visit your classroom, master its AV equipment and set up and trouble shoot your Blackboard course site (Blackboard is U of T’s learning management system; get help for it at CTL).

A. UTSC Academic Policies

The Registrar’s Calendar (www.utsc.utoronto.ca/~registrar/calendars/calendar/) provides many of UTSC’s policies (with the emphasis on the student side) and the Dean’s Office has created an Academic Handbook from the faculty perspective (utsc.utoronto.ca/~vpdean/resource.html). Familiarize yourself with both. Here are a few highlights and terms.

Term work refers to tests, assignments and course activities that occur between the first and last day of classes.

Final exams, by definition, occur in the official final exam period and are scheduled by the Registrar’s Office.

Normal courses have a final exam worth 33 - 80%; deviations from this amount should be approved by the Chair of your relevant department.

Term work marks, cumulatively worth at least 20% of the final grade, must be returned to students before the deadline for withdrawing from a course without academic penalty.

Due dates for term work should be set thoughtfully, but all term work must be ‘due’ by the last day of classes. Exceptions must be approved by the Departmental Chair.

Submission of final marks is done electronically; for courses without a final exam, grades are due 5 working days after the last day of classes. In courses with exams, final grades need to be submitted 5 working days after the exam.

Maintain student confidentiality. Have students deliver and receive their assignments securely (Do not leave assignments outside offices or labs). Avoid taking student ID numbers except on assignments. Do not post student grades in a public venue.

Cases of suspected academic dishonesty must be pursued by the course instructor (not a TA); all offenses must be reported to departmental chair; offenses concerning work worth more than 10% must be reported to the Dean’s designate for Academic Integrity: steps to follow in suspected cases are outlined here: teaching.utoronto.ca/teaching/academicintegrity/ai-
University and Ontario law requires instructors to accommodate students with disabilities who have registered with AccessAbility Services (as documented in their assessment letters). AccessAbility Services offers advice to instructors for making these accommodations. Students may make formal accommodation requests throughout the term, as they are assessed or seek support. Do not disclose to others who is being accommodated. Ask for volunteer not takers, but have them contact AccessAbility, not the student who needs the notes.

**B. Syllabus and First Weeks of Teaching**

At UTSC you are encouraged to **distribute a syllabus** by the end of the first week of classes to your class and your department, but must distribute the syllabus no later than the last date to add the course. Clearly state your learning objectives, methods of evaluation, and university policies on academic integrity.

List assignment dates and grade value; types of assignments and any required outside activities, such as field trips and other off-campus events (*University policy*). Be aware that once the grade value of assignments has been distributed in the syllabus it can only be changed with a simple majority vote for which students are given advance notice.

The anti-plagiarism tool **Turnitin** is often used in courses with large writing assignments. If you plan to use it you must inform students of this by including the standard ‘Turn It In’ statement in your syllabus (*University policy*). See: www.teaching.utoronto.ca/teaching/academicintegrity/turnitin/conditions-use.htm.

Provide a statement on **accessibility, accommodation and academic integrity**. See: http://www.utsc.utoronto.ca/ctl/syllabus-design

Set out your **policy for penalties** with regard to absences, missed tests, and term work submitted late (*best practices*); be consistent with University policies for term work. For absences due to illness, have students use U of T’s Illness Verification Form - http://www.illnessverification.utoronto.ca/document/Verification of Student Illness (VOI) - Oct 27 2016

Use a positive tone for your syllabus and put your deadlines and policies into the perspective of how it will facilitate the students’ overall learning experience.

Classes formally begin at 10 minutes past the hour, and end on the hour. If you have a multiple hour course, its best to schedule a 10-minute break around the hour mark.

**C. U of T’s grading scale**

The U of T grading scale is applied throughout the university. Table 1 shows the U of T grade scale, aligned with the higher order thinking processes usually required for each grade. Consider including it in your syllabus.

For information on faculty resources, visit our site: www.utsc.utoronto.ca/ctl/teaching-courses-instructional-resources.
<table>
<thead>
<tr>
<th>%</th>
<th>Letter Grade</th>
<th>Grade Point Value</th>
<th>Grade Definitions</th>
<th>Critical Thinking* (cumulative process)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>A+</td>
<td>4.0</td>
<td>Excellent</td>
<td>Evaluation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• strong evidence of original thinking;</td>
<td>judging results of analysis and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• good organization; capacity to analyze and synthesize;</td>
<td>synthesis, qualitative or quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• superior grasp of subject matter with sound critical evaluations;</td>
<td>according to internal criteria (can</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• evidence of extensive knowledge base.</td>
<td>identify logical fallacies, exactness</td>
</tr>
<tr>
<td>85-89</td>
<td>A</td>
<td>4.0</td>
<td></td>
<td>of statements) or external criteria</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(major theories, methodologies,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>recognized standards)</td>
</tr>
<tr>
<td>80-84</td>
<td>A-</td>
<td>3.7</td>
<td></td>
<td>Synthesis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>applying logic, deducing or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>extrapolating facts from general</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>theories/concepts to form a precise</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>conclusion, arranging and employing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>elements/parts creating a new</td>
</tr>
<tr>
<td>77-79</td>
<td>B+</td>
<td>3.3</td>
<td>Good</td>
<td>interpretation/plan, relating</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>evidence of grasp of subject matter;</td>
<td>knowledge to individual knowledge</td>
</tr>
<tr>
<td>73-76</td>
<td>B</td>
<td>3.0</td>
<td>• evidence of grasp of subject matter;</td>
<td>formation</td>
</tr>
<tr>
<td>70-72</td>
<td>B-</td>
<td>2.7</td>
<td>• some evidence of capacity and analytic ability;</td>
<td>Analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• reasonable understanding of relevant issues;</td>
<td>relating form and content, examining</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• evidence of familiarity with literature.</td>
<td>structure and arrangement of elements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>for logic and clarity, pattern</td>
</tr>
<tr>
<td>67-69</td>
<td>C+</td>
<td>2.3</td>
<td>Adequate</td>
<td>recognition, inferring meaning</td>
</tr>
<tr>
<td>63-66</td>
<td>C</td>
<td>2.0</td>
<td>• student who is profiting from his/her university experience;</td>
<td>Application</td>
</tr>
<tr>
<td>60-62</td>
<td>C-</td>
<td>1.7</td>
<td>• understanding of the subject matter;</td>
<td>combining concepts in new learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• ability to develop solutions to simple problems in the material.</td>
<td>situations, problem solving,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>employing abstractions in specific</td>
</tr>
<tr>
<td>57-59</td>
<td>D+</td>
<td>1.3</td>
<td>Marginal</td>
<td>concrete situations</td>
</tr>
<tr>
<td>53-56</td>
<td>D</td>
<td>1.0</td>
<td>• some evidence of familiarity with subject matter and some evidence that critical</td>
<td>Comprehension</td>
</tr>
<tr>
<td>50-52</td>
<td>D-</td>
<td>0.7</td>
<td>and analytic skills have been developed.</td>
<td>explaining or using concepts at a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>surface level, understanding and</td>
</tr>
<tr>
<td>-49</td>
<td>F</td>
<td>0.0</td>
<td>Inadequate</td>
<td>transcribing non-literal statements</td>
</tr>
</tbody>
</table>

Adapted from Bloom's Taxonomy by Fran Sardone, Centre for Teaching and Learning, UTSC, 2004
Part 2:
Syllabus Construction
The Learning – Centered Syllabus

By Mary L. Beaudry and Tracey A. Schaub, Faculty Teaching Centre
University of Massachusetts Lowell; email: mary_beaudry@uml.edu

Faculty here have been responding to a problem facing many who teach in higher education today: how to retain students from a wide range of ability backgrounds and still maintain academic standards. Many faculties have come to realize that conventional approaches to college teaching are not adequate for today’s college students, but few have the time and pedagogical expertise needed to make meaningful changes in their courses. Working with our faculty, we in the Faculty Teaching Center have developed something we call the Learning – Centered Syllabus. We believe it supports faulty as they implement step-by-step deliberate instructional change.

The Learning-Centered Syllabus provides a framework for faculty to teach students how to learn the subject matter, not just teach the subject matter. This approach to teaching improves and clarifies the process of learning, thus empowering and motivating a diverse population including many first – generation and inner-city college students. Although the Learning – Centered Syllabus contains the same information found on conventional syllabi, like office hours, professor’s phone numbers, there is a substantive difference which can be found in the three main sections of this syllabus. Consider a brief description of each.

**Instructional Goals and Student Performance Objectives**

These are crucial to the teaching and learning process. We must be clear about what we intend to teach and what we want students to be able to do when they complete the course. We can increase student motivation by attaching instructional goals to student experience. For example, a goal stated in remote terms like – to expose students to a wide variety of literary forms and methods of analysis – misses an opportunity to motivate students. On the other hand, a goal like – to teach students to think critically about connections between characters and events in literature and their own lives – explicitly connects the goal to students’ personal experiences.

Student performance objectives, if stated precisely, help students believe they have a reasonable chance of succeeding. For example, a literature course syllabus might state that students must understand specific types of literature. Words like “understand” and “specific types” are fuzzy and difficult for students to translate into what they need to be able to demonstrate that they have met that performance objective. Alternatively, the same performance objective could be expressed more clearly as students must be able to explicate a lyric poem that has not been discussed in class.

*For more tips on syllabus construction see*
http://www.teaching.utoronto.ca/topics/coursedesign/course-syllabi.htm
OBJECTIVELY SPEAKING
Richard M. Felder
Rebecca Brent

Student A: “Buffo’s first test is coming up in a week. I haven’t had him before—can you just plug into formulas on his exams or does he make you do derivations and stuff?”

Student B: “It’s tough to predict—last fall most of his questions were straight substitution but a couple of times he threw in things I never saw in the lectures.”

Student C: “Yeah, and if you ask him what you’re responsible for on the test he just gets mad and gives you a sermon on how bad your attitude is—we had a 600-page textbook and according to Buffo we were supposed to know everything in it.”

Student A: “Forget that-no time. I’ll just go through the homework problems and hope it’s enough.”

You can often hear conversations like that in the student lounge, and if you step across the hall to the faculty lounge you’ll hear their counterparts.

Professor X: “All these students can do is memorize—give them a problem that makes them think a little and they’re helpless.”

Professor Y: “I don’t know how most of them got past their first year. The average on my last test was 47 and some of them went to the department head to complain that I was testing them on things I never taught them, even though the chapter we just covered gives them everything they needed to know.”

Professor Z: “It’s this whole spoiled generation—they want the grades but don’t want to work for them!”

Things are clearly not going quite the way either group would like. Many students believe that their primary task in a course is to guess what their professors want them to know, and if they guess wrong they resent the professors for being unreasonably demanding, tricky, or obscure. Professors then conclude that the students are unmotivated, lazy, or just plain dumb.

There is another way things can go. Suppose you give your students a detailed outline of the kinds of problems you would be calling on them to solve, including some that require real understanding, and then ask them to solve such problems on homework assignments and tests. Since you told them what you expected them to do and gave them practice in doing it, many or most of them will end up being able to do it—which is to say, they will have learned what you wanted them to know. Some professors might regard this process as “spoon-feeding” or “coddling.” It is neither. It is successful teaching.

Instructional Objectives = Learning Objectives

An effective way to prepare students for the imminent possibility of having to think is by giving them instructional objectives, statements of specific observable actions that the students should be able to perform if they have mastered the course material. An instructional objective has one of the following stems:

At the end of this [course, chapter, week, lecture], you should be able to ***
To do well on the next exam, you should be able to ***

Where *** is a phrase that begins with an action verb (e.g., list, calculate, estimate, describe, explain, predict, model, optimize,...). The more specific the task, the more likely it is that the students will learn to complete it.

Here are some examples of phrases that might follow the stem of an instructional objective, grouped in six categories according to the levels of thinking they require.

1. **Knowledge** (repeating from memory): list [the first ten alkanes]; identify [five key provisions of the Clean Air Act]; summarize [the procedure for calibrating a gas chromatograph].

2. **Comprehension** (demonstrating understanding of terms and concepts): explain [in your own words the concept of vapor pressure]; describe [how a flash evaporator separates components of a liquid mixture]; interpret [the output from an ASPEN flow sheet simulation].

3. **Application** (applying learned information to solve a problem): apply [the mechanical energy balance equation to estimate the pressure drop in a process line]; calculate [the probability that two sample means will differ by more than 5%]; solve [the compressibility factor equation of state for P.T. or v from given values of the other two].

4. **Analysis** (breaking things down into their elements, formulating theoretical explanations or mathematical or logical models for observed phenomena): derive [Poiseuille’s law for laminar Newtonian flow from a force balance]; explain [why we feel warm in 70F air and cold in 70F water]; classify [a problem solution in terms of the steps of Polya’s problem-solving model].

5. **Synthesis** (creating something, combining elements in novel ways): formulate [a model-based alternative to the PID controller design presented in Wednesday’s lecture]; design [an experiment to determine the effect of agitator speed on mixing efficiency in a stirred tank]; create [a homework problem involving material we covered in class this week].

6. **Evaluation** (choosing from among alternatives and justifying the choice using specified criteria): determine [which of the given heat exchanger configurations is better, and explain your reasoning]; optimize [the given methanol production process design]; select [from among available options for expanding production capacity, and justify your choice].

The six given categories are the levels of Bloom’s *Taxonomy of Educational Objectives* [1]. The last three categories—synthesis, analysis, and evaluation—are often referred to as Bloom’s higher level thinking skills.

**Why Bother?**

Well formulated instructional objectives are more than just an advance warning system for your students. They can help you to prepare your lecture and assignment schedules and to identify and possibly delete course material that the students can do little with but memorize and repeat. They also facilitate construction of in-class activities, out-of-class assignments, and tests: you simply ask the students to do what your objectives say they should be able to do. A set of objectives prepared by an experienced instructor can be invaluable to someone about to teach the course for the first
time, and can help instructors of subsequent courses know what they should expect their students to have learned previously. If objectives are assembled for every course in a curriculum, a departmental review committee can easily identify both unwanted duplication and gaps in topical coverage, and the collected set makes a very impressive display for accreditation visitors.

Tips on Writing Objectives

- **Try to write instructional objectives for every topic in every course you teach.** Consider taking a gradual approach: formulating good objectives for a course may take some time, and there is no need to write them all in a single course offering.

- **Include some objectives at the three highest levels of Bloom’s Taxonomy.** Analysis, synthesis, and evaluation questions can and should be included in every course, but they rarely show up in undergraduate courses. They are not that hard to write, but if you don’t consciously set out to write some, you probably won’t. Examples of higher-level questions are given by Felder [2] and by Brent and Felder [3].

- **Avoid beginning an instructional objective with any of four forbidden works: know, learn, appreciate, and understand.** These may be the ultimate goals of instruction but they are not valid instructional objectives, since you cannot directly observe whether they have been achieved. Think of what you will ask the students to do to demonstrate their knowledge or understanding, and make those activities the instructional objectives for that topic.


Formulating detailed instructional objectives for a course or even for a single topic in a course is not nearly as easy as simply listing the course topics in a syllabus. The effort is worthwhile, though. When we have asked alumni of our teaching workshops which of the instructional methods we discussed they found most useful, instructional objectives ranked second only to co-operative learning. Many professors testified that once they formulated objectives for a course-sometimes one they had taught for years—they changed the course dramatically to one that was both more interesting and more challenging to the students and more enjoyable for them to teach.

References

WELCOME TO GENETICS!
In this course we consider many important areas of genetic study including eukaryotic patterns of inheritance, genetic mapping, mutation and use of genetics for understanding gene function, chromosome organization and mutation, and Recombinant DNA technology and genome analysis.

To take this course you need to have successfully completed [BIOB10H, BIOB11H (or BIOB10Y)] and [PSYB07 or STAB22, or an equivalent statistics course]. Prerequisites are enforced for your benefit and that of the other students in the course.

The knowledge you learn in this course is valuable for the practice of health or veterinary-related science, genetic counseling, genetic diagnostics, the use of genetics and molecular technologies to better understand complex biological processes and systems. It also will help you be a better science-literate citizen in a complex world. If you keep up with the learning activities of this course it also can be fun!

INTERACTION TIMES AND COMMUNICATION METHODS

Lectures for this course are Wednesdays 12:00-14:00 in MW160 (there is one in-class test in this timeslot on June 7th in this timeslot) and Thursdays days 14:00-15:00 in MW170.

There are 9 formal lab meetings, starting in the week of May 8-12; formal labs are in SW242 on Wednesday and Thursdays
Wed. 14:00-17:00 (P01) and Thursday 10:00-13:00 (P03) and Thursday 15:00-18:00 (P02).
You must attend the practical you are registered in. Students organize into teams of 4-5 students.

Because you are doing real genetics experiment, from start to finish, each team has some lab work outside of the normal practical meetings May 18 through July 7th (including Reading Week). It is therefore vital that teams equitably distribute the team’s lab work so no one person has too much lab work to do, and to share accurate team experimental data.

Dr. H’s office hours are
Mondays 4-6 pm in SY246 (except no office hrs on Victoria Day, May 22, or Canada Day Holiday (July 3 ) or Civic holiday (Aug 7)
Wednesdays 4-6 in SY246
email questions are welcome (hasenkampf@utsc.utoronto.ca), but allow two working days for response time. (note complex genetics questions can not be done by email)
Dr. H is available for all questions about lectures and test content and is also able to provide advice about the fly crosses, and general program and post-graduation planning. For specific questions about your labs, contact your TA.

LEARNING GOALS AND OUTCOMES FOR BIOC15 GENETICISTS
1. Students will be able to inter-relate chromosome behavior during meiosis with the key rules of inheritance: segregation of alleles, independent assortment, sex linkage, linkage, and maternal inheritance.

2. Students will combine their knowledge of probability theory with the rules of inheritance to do pedigree analysis and accurately predict genetic outcomes. Additionally students will be able to interpret pedigrees and phenotypic ratios to determine if genes likely are autosomal or sex-linked, linked or sorting independently, and genotypes of parents.

3. Students will develop an appreciation of how genes work within organisms and will be able to use this knowledge to understand and predict phenotypic ratios. Also they will be able to interpret phenotypic ratios to identify the
number of genes, allelic relationships, dominance relationships, and types of interaction gene interactions in biological pathways.

4. Students will do genetic crosses using the model organism *Drosophila melanogaster* to deduce the genotype, mode of inheritance, dominance relationship(s) and recombination frequency map distances and interference of several Drosophila genes. These classical genetic techniques will provide students with first hand experience with the rigor and precision needed to perform biological experiments, and with the difficulties, frustrations and errors that can occur.

5. Students will gain experience working collaboratively as part of a team to accomplish the work of a set of experiments. This includes learning to distribute a task’s workload equitably and to give each other productive feedback in a professional and constructive manner.

6. Students will evaluate their data and create a group oral and an individually, personally written report of their experiment that effectively communicates complex ideas to colleagues.

7. Students will critically read an assigned research article, provide a concise analysis of key findings of the research article and relate the work to the mechanisms of eukaryotic inheritance.

8. Students will be able to describe the key molecular technologies that led to the sequencing of the human genome (and other model organisms) and will understand how entire genome sequencing has led to systems approaches to understanding biochemical and developmental pathways, human diseases and related therapeutic approaches. Students will be able to use this knowledge to interpret molecular phenotypes and relate them to genotypes and organismal phenotypes.

9. Students will practice communicating as a professional in all communications for this course: emails to team mates, TAs and instructor, and in the careful organization of lab notebook and accurate and time stamped data collections, and in oral and written assignments.

10. Students will examine the cellular processes that combat DNA damage and replication errors, and will be able to analyze how mutations can be used to explore biological processes, genome structure and evolution.

11. Students will be able to characterize the types of DNA- and chromosomal mutations and will understand the origins and consequences of these mutations. Students will be able to predict the impact on chromosomal mutations on inheritance and phenotypes conversely determine the type of chromosomal mutation that has occurred based on altered inheritance pattern and phenotypes.

12. Students will understand what critical writing looks like and will have practiced critical writing and received feedback.

To do well in this course and avoid unnecessary stress it is vital to keep up with the work on a weekly basis: understanding the key concepts, completing assigned activities to develop skill in using the concepts, and doing weekly lab work on time. For example, by Monday of week 2 you will need to understand and be able to use, the material of week 1, etc throughout the course. To help you make a strong start with this learning pattern there will be weekly online quizzes for the lecture content and unannounced but frequent lab quizzes. For the online lecture quizzes you can work cooperatively with friends for the online quizzes but you must each complete the quiz by its closing date to receive credit, and you must be a participating thinker in the final solutions!

**COMMUNICATION INFORMATION**

| Course announcements, communications and lecture notes will be available on the BIQC15 Blackboard course site. Be sure you have a Utorid and know how to access the Blackboard sites. Check the Blackboard site regularly for important, time-sensitive announcements. |
Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site. Your TA will give you instructions on how to submit your assignment to TurnItIn in advance of the submission deadline.

Lectures notes typically will be posted within 24 hrs AFTER the relevant class meeting. But creating a class with effective learning is a two-way exchange; I need your feedback and interactions to understand how well I am getting the ideas across, so I need many students attending class!

Learn the name of your TA and interact with your TA and fellow students with respect. They are your important learning partners! Questions about lab work and assignments, lab quizzes etc should be addressed to your TA.

Course evaluations for this course and all UTSC courses will be done on-line; please participate. Your assessments and insights are important to me in particular and the university in general!

ABSENCE POLICY

If you are prevented from attending or completing a course requirement (test, lab, or assignment), due to any illness or other circumstance of a grave nature, contact Dr.Hasenkampf by email within two days of the missed requirement, clearly stating the reason. In addition to this email notification, you need to complete the ‘Verification of illness or injury’-form or other official documentation of the grave circumstance and deliver it to Jennifer Campbell in the Biological Sciences office (SW421D) during regular working hours Monday -Friday. These documents will be used to determine eligibility to recover any lost marks.

The ‘verification of illness or injury’ form can be found at http://www.illnessverification.utoronto.ca/document/Verification%20of%20Student%20Illness%20(VOI)%20-%20Oct%202016.pdf

Acquaint yourself with its content such that in case of an emergency you can obtain the essential information required, even in the absence of the official form.

Remember this course is about learning Genetics. When you are well, work hard and engage! If you are sick, take care of yourself, do what you can from home and get back into the swing of the course once you are well. Feel free to contact me for help strategizing for getting caught up.

IMPORTANT ACQUISITIONS

The textbook for this course is Genetics from Genes to Genomes, 2\textsuperscript{nd} Canadian edition. It is packed as a bundle with the Solutions manual. The textbook/solutions manual bundle may be purchased at the bookstore.

The lab manual is posted on the Blackboard course site; download your copy and bring the relevant part to each lab.

INFORMATION ON TERM TESTS AND COURSE ASSIGNMENTS

There will be one, IN CLASS term tests (June 7th) and a comprehensive final exam. The make up test will be the following Monday (June 12\textsuperscript{th}) for those who have provided the requirement documentation of a grave circumstance. The format of the make up test may well be different from the original test. The final exam is held during the examination period.

Anyone missing the term test (and who has a valid and documented medical or serious personal problem to miss that test) must notify Dr Hasenkampf within 48 hrs of the test (June 9\textsuperscript{th}) and provide the appropriate documentation before or at the make up test on Monday June 12\textsuperscript{th}).

Anyone without an acceptable (and documentable) reason for missing a test (or assignment or lab) will receive the grade of zero for the relevant work.
Test content, and the level of detail of tests and the exam will be as covered in the lecture class notes, assigned problems, assigned independent reading, the figures from the textbook (as assigned in the lecture class notes) definitions in bold in the lab manual and the questions and answers posed within the lab manual. In our class meetings I try to highlight the most important and/or most challenging concepts and applications, but the posted lecture class notes are the definitive source for lecture content that might be included on the two in class tests or the final exam.

Doing well is not just about having a good set of notes! To convert the information in the lecture notes to your own working knowledge of genetics you need to consider the content compared to what you already know, and how you can use the content to solve real world genetic problems. Doing the assigned genetics problems is very important.

One good way to assess how well you are doing this is to come to class and to fully engage with the learning activities of BIOC15. Best wishes for an exciting learning journey!

FINAL EXAM
The final exam in this course, as in the challenges we face in life, is comprehensive in nature. For BIOC15 this means the exam will assess your working knowledge of our topics from throughout the course. The Final exam will be held in the examination period. Anyone absent from the Final exam must petition the registrar’s office to take a deferred exam.

LAB MEETINGS
Labs start in the second week of classes either May 10th (P01) or May 11th (P02/P03). Each of you is assigned to one practical section that you attend on a weekly basis. In addition to this time period, additional lab work will need to be done by your lab team; some members attend the genetics lab at additional posted times to create your genetic crosses and collect data. Attendance in labs is mandatory; absence will reduce your mark. The success of your genetic crosses requires coordinated teamwork. Please develop a good working relationship and effective communication system with your team members. The ability to work as part of a team is an important life skill; use this course as an opportunity to improve your abilities. The lab work is designed to reinforce the concepts and problems considered in the class meetings and assessed on the tests and exam. If you fully engage with the lab work it will improve your learning in genetics.

MARKING SCHEME FOR THE COURSE

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1 June 7th</td>
<td>20%</td>
</tr>
<tr>
<td>Lecture quizzes</td>
<td>18%</td>
</tr>
<tr>
<td>Final exam</td>
<td>37%</td>
</tr>
<tr>
<td>Research Article prelab reading assignment</td>
<td>1%</td>
</tr>
<tr>
<td>Research Article Critical Writing assignment</td>
<td>3%</td>
</tr>
<tr>
<td>Oral lab report</td>
<td>2%</td>
</tr>
<tr>
<td>Lab Experiment Summary and Analysis</td>
<td>8%</td>
</tr>
<tr>
<td>Lab engagement</td>
<td>11%</td>
</tr>
</tbody>
</table>

In class time (Classes 1-10)

online through the course site

(Comprehensive for all lectures)

(participation, ability to work fairly and effectively as a team-member, lab assignments, lab quizzes)

Very Important Information - This is a lecture and laboratory course. To pass this course you must have an overall passing grade AND pass the laboratory portion of the course (lab engagement and oral and written reports)

The University of Toronto is dedicated to fostering an academic community in which the learning and scholarship of every member may flourish, with vigilant protection for individual human rights, and a resolute commitment to the principles of equal opportunity, equity and justice. The instructor and Teaching Assistants of BIOC15 fully endorse this policy.
ACADEMIC INTEGRITY
The University treats cases of cheating and plagiarism very seriously. The University of Toronto’s Code of Behaviour on Academic Matters (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences in papers and assignments include using someone else’s ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.

On tests and exams cheating includes using or possessing unauthorized aids, looking at someone else’s answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University, including (but not limited to) doctor’s notes.

Please avoid academic dishonesty, have confidence in your own ability to learn and grow academically by doing your own thinking and writing! I know you can learn a lot about genetics and yourself in this course.

ACCESSABILITY

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services as soon as possible. AccessAbility Services staff (located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

SCHEDULE OF LECTURE TOPICS AND IN CLASS TESTS. (Lab schedule is in the lab manual)

Please note this is the topic-order, but we occasionally get a little ahead or a little behind the posted dates.

May 3,4 (C1, C2)  
Overview of BIOC15 and Modern Genetics (Chapter sections 1.1- 1.4), and Inheritance – Mendel’s First and Second Laws & Probability Chapter sections 2.1-2.2), and Pedigree analysis (2.3)

May 10,11 (C3, C4)  
No labs in the first week of class

Extensions of Mendelian Analysis:
Dominance Relationships and Multiple alleles, wild type and mutant alleles (Chapter sections 2.4 and figures 7.22- 7.24 and related text)
How Genes (& the environment) interact to determine phenotypes (Chapter sections 2.4-2.5) and
Using Mutational Analysis to understand how phenotypes are determined (Chapter section 8.4)

Labs begin

May 17,18 (C5,C6)  
Extensions of Mendelian Analysis: Genes’ Products Interactions and Continuous Traits (Chapter section 2.4- 2.5); Chromosome Theory of Inheritance Mitosis (Chapter sections 3.2-3.3) and Meiosis (3.4)

May 24,25 (C7,C8)  
X-linkage: an exception to Mendel’s First Law, Sex Determination, (Chapter sections 3.6 & 3.7) & nonNuclear Inheritance- another exception to Mendel’s First Law; Linkage - an Exception to Mendel’s Second Law (genes don’t always sort independently) (Chapter section 4.1 & 4.2)

May 31, June 1(C9, 10)  
Mapping genes on chromosomes using recombination frequencies (Chapter section
4.3, Recombination & Special Mapping techniques; Chi-Square Test and Linkage analysis section 4.3)

June 7,8 (C11,12) Test 1 (June 7), June 8 Research article assignment discussion (make up for those with a validated strong reason to have missed the test (Monday June 12)

June 14, 15 Reading Week, no classes but don’t forget to assign team members to do fly matings, and read your assigned research article

June 21,22 (C13,C14) Molecular Biology and Recombinant DNA Technology Chapter Section 14.1-14.6

Research Article Critical Reflection assignment
Article quiz online, must be completed by 11 pm June 20th
Article discussed in Lab 6 (June 21,22).
Article write up - The recommended submission date Monday June 26th; due date is June 28th. Life happens; there is a grace period until 6 pm Thursday June 29th.
Once the grace period has ended there is a 5pt per day penalty for each day late, day ends 6 pm.

June 28,29 (C15,16) Molecular Biology and Recombinant DNA technology, continued Chapter sections 14.2-14.6
The Human Genome Sequencing Initiative.

July 5,6 (C17,C18) Post Sequencing Technologies and Genomic Approaches to Genetics Chapter 15.1-15.5

July 12,13 (C19, 20) DNA damage, Gene Mutation and DNA Repair Mechanisms Chapter section 8.1-8.2
Oral lab reports done in lab practicals (a chance to get feedback from colleagues, before writing your Experiment Summary and Analysis)

July 19,20 (C21,22) Chromosome Mutations Rearrangements of parts of chromosomes :Deletions, Duplications, Inversions, Translocations, Structure of these changes and their impact (9.1-9.2), transposition (9.3).

July 24 Each person’s ‘Lab Experiment Summary and Analysis’ are due on Monday July 24th, by 6 pm. The reports must be completely in your own words. This assignment must be submitted via TURNITIN; your TA will provide instructions on how to use TURNITIN. Life happens; there is a grace period until 6 pm Wednesday July 26th. Once the grace period has ended there is a 5pt per day penalty for each day late, day ends 6 pm.

July 26,27 (C23,C24) Mutations: Changes in the Number of Chromosomes Aneuploid and Euploid (9.4-9.5)
Genome Restructuring and Evolution (9.6)

I look forward to exploring the marvels of Genetics with you this term! Welcome to BIOC15!
SAMPLE SYLLABUS 2

ENGC 33H LITERATURE OF DECEIT AND DISSENT, 1603-1660
Winter 2009:  M/W 12:00-1:30PM Room:  BV 516
Dr. Katherine R. Larson
Office:  H428
Phone: (416) 287 – 7169
Email: larson@utsc.utoronto.ca
Office Hours: Monday 1:30 – 3:30 PM or by appointment

COURSE DESCRIPTION
This course introduces students to the poetry, prose and drama written in England between the death of Queen Elizabeth in 1603 and the Restoration of the monarchy in 1660. There politically tumultuous years, which witnessed the outbreak of the Civil Wars, also produced some of the most innovative works in English literature. We will examine how literature of the Jacobean and Caroline periods manifests deceit and dissent on both thematic and structural levels. Lectures and discussions will focus on close textual analysis of selected texts by Francis Bacon, Ben Jonson, Aemelia Lanyer, John Donne, Mary Worth, George Herbert, Richard Crachaw, Henry Vaughan, John Webster, Elizabeth Cray, Thomas Hobbes, Margeret Cavendish, John Milton, Katherine Philips, Robert Herrick, Lucy Hutchinson, and Andrew Marvell. The course will explore how these writes engaged in seventeenth-century debates concerning personal and political sovereignty, censorship, gender, religion, social hierarchy, courtship and marriage, nationhood, race, and women’s authorship. We will also consider how literature of this period both appropriates and challenges established generic, structural, and stylistic conventions.

REQUIRED TEXTS
- Elizabeth Cray, The Tragedy of Mariam, ed. Stephanie Hodgson-Wright (Broadview)

RECOMMENDED TEXTS

Required texts are available from the UTSC bookstore. Recommend texts are on reserve in the UTSC library or available through intercampus loan. Copies of the MLA Handbook are also available at the UTSC bookstore.
ONLINE RESOURCES
Norton Literature Online: A wealth of resources, including timelines, glossaries, author portraits, practice quizzes, and writing tips, designed by the editors of the Norton Anthology. A registration access code can be found in the front inside cover of your textbook.

http://www.norton.com/literature


Women Writers Online (WWO): An electronic database featuring an excellent collection of early modern women’s writing (Renaissance Women Online).
http://www.wwp.brown.edu

The University of Toronto subscribes to both EEBO and WWO. I have included links on the class intranet site, but if you are working from a computer off – campus, you will need to access the sites through the library’s “All e-resources” link. Type “Early English Books Online” or “Women’s Writes Online” into the e-resources search engine at http://www.library.utoronto.ca.

METHODS OF EVALUATION
Attendance and Participation
Regular attendance in class, thoughtful preparation of the assigned texts, active involvement in discussion, and participation in poetic and dramatic readings. If you need to miss class due to illness or another extenuating circumstance, you must inform me in writing before the class session in order for the absence to count as excused. No more than two excused absences are allowed before your grade will be affected.

Commonplace Book
Commonplace books were extremely popular in early modern England and provided a personal record of individuals’ reading experiences. Over the course of the semester, each of you will compile a commonplace book made up of five separate entries. These entries, which may be typed or handwritten, should constitute analytical reflections on assigned readings and close readings and close readings of quotations or passages that inspired or puzzled you. Your analyses can emerge from questions posted on the intranet site, or from your reading. Entries will be assigned a mark on a scale of one to ten for thoughtfulness, evidence of active reading, depth of analysis, and quality of writing. Feel free to write additional commonplace book entries for your own use. Keeping a commonplace book provides a reading record that can be very helpful when you write essay and/or revise for the exam. Each entry should be approximately 500 words. If you are typing, this amounts to two double spaced pages. Five entries, each worth 5% of your final mark, are to be submitted in class every other Wednesday, beginning on January 14. There is no entry due on March 18. The completed commonplace book is due in class on Wednesday, March 25th. Your completed commonplace book should be organized chronologically in a folder or a notebook (no binders please).
Essay (6-8 Pages)
Options for the essay will be posted on the course intranet site before Reading Week.
Due in class on Wednesday, March 18th.

Final Exam
Date TBA.

ESSAY GUIDELINES
A detailed document containing my guidelines for essays and written assignments is posted on the intranet site. I strongly encourage you to consult this document closely before submitting your written work. A reminder that essays must be typed and double spaced using 12-point font and 1-inch margins. Citations and bibliography should follow MLA style. Please proofread and staple your assignments before handing them in. Important: Please keep all of your notes and rough drafts for each piece of written work until it has been returned to you. Also, remember to keep a backup copy of your written assignments on your computer after printing it.

LATENESS POLICY
Late essays and commonplace book entries will be penalized 2% per calendar day (including weekends and holidays) beyond the scheduled due date for a maximum of ten days, after which the assignment will receive a zero. If a serious medical or personal crisis arises, please contact me. A note from your doctor or the registrar will normally be required.

ACADEMIC INTEGRITY
I expect that all your work you submit will be on your own, prepared specifically for this class. If you incorporate the ideas of other individuals into your work, those reference must be properly acknowledged and cited. Plagiarism is a serious academic offence and will be treated as such by me and by the University of Toronto. If you have questions about how to avoid plagiarism, please speak with my during my office hours. Margaret Proctor’s article “How Not to Plagiarize” is also an excellent resource. It can be accessed at the following site: http://www.utoronto.ca/writing/plagsep.html

EMAIL
Outside of office hours, email is the best way of contacting me. I check my email at the start of the work day and again in the late afternoon. You can expect to receive a reply to your email within 24 hours. I do not generally reply to emails on weekends, and I do not accept assignments over email.

AccessAbility SERVICES
Students with a disability or health consideration are encourages to approach Tina Doyle, Coordinator and/or the AccessAbility Services Office at: (416) 287 – 7560. You can also drop by the office, S302B, inside the Resource Centre. The Coordinator is available by appointment to assess specific needs, provide referrals, and arrange appropriate accommodations.
<table>
<thead>
<tr>
<th><strong>COURSE SCHEDULE</strong></th>
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<tbody>
<tr>
<td><strong>Week 1</strong></td>
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<tr>
<td>Deceit and Dissent in City, Court, and Country</td>
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<tr>
<td><strong>Week 3</strong></td>
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<tr>
<td>Deceit and Dissent in City, Court, and Country</td>
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<td><strong>Week 6</strong></td>
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<tr>
<td><strong>A Poetics of Deceit and Dissent: the Secular and Religious Lyric</strong></td>
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<td>Week 7</td>
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<td>Reading Week</td>
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<td><strong>Week 9</strong></td>
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<td><strong>Week 11</strong></td>
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<td><strong>Week 12</strong></td>
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</table>
### Seventeenth Century: John Milton's *Paradise Lost*

| Week 13 The Crisis of Authority in the Seventeenth Century: John Milton's *Paradise Lost* | Monday, March 30  
Book 12, Lines 469 – 649, pp. 2051 – 2055 | Wednesday, April 1  
Wrap – up and exam review |
|---|---|---|
Book 5, lines 1 – 93, pp. 1909 – 1910 | CPB ENTRY # 5 AND COMPLETED CPB DUE |

**GOOD LUCK ON YOUR EXAMS AND HAVE A GREAT SUMMER!**
Possible Policy Statements to Add to Your Syllabus

AccessAbility statement – http://www.utsc.utoronto.ca/~ability/faculty_syllabus.html
Suggested statement for your syllabus: "Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible.

AccessAbility Services staff (located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course."

Academic Integrity -
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Please avoid academic dishonesty, have confidence in your own ability to learn and grow academically by doing your own thinking and writing! I know you can learn a lot about genetics and yourself in this course."

Appropriate Use of Technology - http://www.provost.utoronto.ca/policy/use.htm

Copyright -

Equity - University Policy (UTSC Academic Handbook, Section IX) -


Intellectual Property (CTSI) - http://teaching.utoronto.ca/teaching-support/course-design/developing-a-syllabus/ - “Recording or photographing any aspect of a university course - lecture, tutorial, seminar, lab, studio, practice session, field trip etc. – without prior approval of all involved and with written approval from the instructor is not permitted. For further information on University policies, please refer to the following links for details.
Privacy -
http://www.provost.utoronto.ca/Assets/Provost+Digital+Assets/Provost/Provost+Digital+Assets/Provost/fippa.pdf

Strategies for Instructors for Laptops in the Classroom - UTSC
http://www.utsc.utoronto.ca/ctl/sites/utsc.utoronto.ca.ctl/files/u25/laptop-strategies-classroom-may2017.pdf (See page 87 of this document for the Laptop Strategy.)
Part 3:
The First Day of Class
Getting to, and through, the first class

Clare Neasham, Director
CLUSTER INNOVATION INTEGRATIVE EXCELLENCE

Phase 1 Dreaming

For your course what would you want the learning to be, how would you facilitate this learning?

(brainstorming, not detailed planning)

Phase 2 Reality Check

Identify your resources, and your courses’ niche
Learn your departmental and divisional policies
Look at your course enrolment
Visit the assigned classroom.

Phase 3 Planning your real course

- Identify learning objectives
- Plan course activities and assessment
- Think about how/when to give feedback
- Determine the marking scheme.

Phase 4 Nuts and Bolts

- Select TAs, meet them, plan TA training
- Ensure textbooks and course packs are moving along
- Get library materials in place or linked to your course
- How/will you use the learning management system?
Phase 5 Your Syllabus
The Learning Partnership

*Provide the grading components of the course*

Consider a summary of the nature of the subject, and consider its value to the human endeavor.

Your Syllabus

Include the learning goals for the course, consider one being about student professionalism

Transmit high expectations, try to connect course structure (activities, assignments test etc) to the learning goals.

Your Syllabus A Wealth of Information

The syllabus might well be several pages long with vital information about course communication, textbooks, readings topics, etc.

A comprehensive syllabus is a good thing.

Your Syllabus Its Tone

Make Your Course Welcoming

Consider adding a statement about accessibility and a statement about academic integrity.

Put policies, rules, etc in a positive light

Keep the focus on learning!

Phase 6 The First Class
Managing Expectations

Yours and Theirs

For your first class you want the students
To get a sense of who you are
- your passion for the topic,
- your path to this position

To get a sense of the discipline, of its value

To get a clear message of what the students can expect to learn, and what they will be expected to do.
Tips from granny Clare

(tales from the crypt)

What will surprise you on the 1st day

in big classes there may be several people who want your time who are not in your course

- student groups
- student services
- students who are trying to get into your course

What will surprise you about the 1st day (later on)

Not everyone who will be in your course is at classes in the first class, or even on campus in the first week of classes.

It is therefore vitally important to post syllabus and frequently refer to its existence. I like to do a test countdown, and refer to syllabus for test content etc.

Overall Structure of first class

First half of first class is about setting the tone, going over the most important parts of the syllabus, but by the second half of the class, I like to get into the intellectual content of the course, so that students who are shopping get a clear idea of my course, and also I like to get students working from day 1.

In the first class I try

To make students feel welcome – all students

embrace diversity and the cultural and language challenges

welcome students with disabilities.
In the first class I try to give students the impression my course is a lot of work, but that it is work that will pay off,
-that the assignments and test match up with their workload and with what I have indicated I want them to learn.
-that what they will learn is important to society

In the first class I try to let students know I think they can do it, and how the structure of the course will support their success
To let students see that I am happy to be there (even if I am wired, stressed, etc.).

In the first class I try to establish a sense of common purpose and a sense of community and humanity.

“Good Teaching cannot be reduced to technique; good teaching comes from the identity and integrity of the teacher”
Bad teachers distance themselves from the subject they are teaching—and in the process, from their students.
Good teachers possess a capacity for connectedness.
from Parker Palmers The Courage to Teach

In your first class in addition to giving students a strong sense of what they will learn and how they will learn it, you want to start the connectedness.

let students see who ‘the teaching you’ is, and how you and they will be connected.
try to establish an authentic teacher/learner relationship

For more tips on first class strategies see http://www.teaching.utoronto.ca/topics/strategies/first-class.htm
Part 4:
Testing and Assignments
APPROPRIATE TESTING
COGNITIVE LEVELS OF KNOWLEDGE AND COURSE TESTING

Bloom’s Taxonomy (1956) has stood the test of time. Recently Anderson and Karthwohl (2001) have proposed some minor changes to include the renaming and reordering of the taxonomy. The purpose of the taxonomy is to categorize, in hierarchical ways the levels of knowledge acquisition. Table 1 is a brief summary of the revised Bloom’s taxonomy.

TABLE 1. BLOOM’S TAXONOMY RELATING LEVEL OF LEARNING AND ASSOCIATED ABILITY

<table>
<thead>
<tr>
<th>Learning Level</th>
<th>Type of performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Knowledge</td>
<td>Capable of recalling words, facts, convert, classify</td>
</tr>
<tr>
<td>2) Comprehension</td>
<td>Comprehend, capable of transporting, integrating and extrapolating</td>
</tr>
<tr>
<td>3) Application</td>
<td>Able to apply the concept to solve problems</td>
</tr>
<tr>
<td>4) Analysis</td>
<td>Capable of identifying elements, relationships, and organizing principles</td>
</tr>
<tr>
<td>5) Synthesis (create)</td>
<td>Synthesis different information to make something new</td>
</tr>
<tr>
<td>6) Evaluation</td>
<td>Expert, judge</td>
</tr>
</tbody>
</table>

*From Dieter Schonwetter’s presentation at the International Institute for New Faculty Developers. June 2007.*

As educators we usually hope our students are achieving these higher levels of knowing, but are we modeling this in our course materials? Are we testing students at these higher levels?

Effective university courses have:
- a) Clearly stated learning outcomes that require higher level thinking
- b) Course activities that model higher level thinking and provide students practice and feed (formative assessment) in working at these higher levels and
- c) Summative assessment (grading) that actually measures the achievement of learning outcomes.

Thus if we want students to do higher level thinking within the disciplines that we are teaching our course activities and testing methods must be in alignment with these goals.

I have assembled materials that are largely focused on aligning our testing levels with higher levels of knowing, but I have also included some material on classroom behavior that promotes higher level of thinking (Table 2, Instructional strategies). I have assembled the information in this document from materials presented by Dieter Schonwetter, and Peg Weissinger at the International Institute for New Faculty Developers (IINFD) Ottawa June 2007, from the symposium presentation of David Di Battista’s at the Society for Teaching and Learning in Higher Education (STLHE) June 2007, and from the references included herein.
Table 2 considered how general testing and instructional strategies can be aligned with Bloom’s taxonomy.

**TABLE 2. BLOOM’S TAXONOMY, TESTING AND COURSE ACTIVITIES**

**Level 1. REMEMBER (KNOWLEDGE)**

(shallow processing: drawing out factual answers, testing recall and recognition)

<table>
<thead>
<tr>
<th>Verbs for Learning Objective</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose</td>
<td>Who?</td>
<td>Highlighting</td>
</tr>
<tr>
<td>Describe</td>
<td>Where?</td>
<td>Rehearsal</td>
</tr>
<tr>
<td>Define</td>
<td>Which one?</td>
<td>Memorizing</td>
</tr>
<tr>
<td>Identifying</td>
<td>What?</td>
<td>Mnemonics</td>
</tr>
<tr>
<td>Labels</td>
<td>How?</td>
<td></td>
</tr>
<tr>
<td>List</td>
<td>What is the best one?</td>
<td></td>
</tr>
<tr>
<td>Locate</td>
<td>Why?</td>
<td></td>
</tr>
<tr>
<td>Match</td>
<td>How much?</td>
<td></td>
</tr>
<tr>
<td>Memorize</td>
<td>When?</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>What does it mean?</td>
<td></td>
</tr>
<tr>
<td>Omit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recite</td>
<td></td>
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<tr>
<td>Recognize</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
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</tbody>
</table>

**Level 2. UNDERSTAND AND (COMPREHEND)**

(translating, interpreting and extrapolating)

<table>
<thead>
<tr>
<th>Verbs for Learning Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classify</td>
<td>State in your own words.</td>
<td>Key examples</td>
</tr>
<tr>
<td>Defend</td>
<td>Which are facts?</td>
<td>Emphasize connections</td>
</tr>
<tr>
<td>Demonstrate</td>
<td>What does this mean?</td>
<td>Elaborate concepts</td>
</tr>
<tr>
<td>Distinguish</td>
<td>Is this the same as…?</td>
<td>Summarize</td>
</tr>
<tr>
<td>Explain</td>
<td>Give an example.</td>
<td>Paraphrase</td>
</tr>
<tr>
<td>Express</td>
<td>Select the best definition</td>
<td>STUDENTS explain</td>
</tr>
<tr>
<td>Extend</td>
<td>Condense this paragraph</td>
<td>STUDENTS state the rule</td>
</tr>
<tr>
<td>Give example</td>
<td>What would happen if…?</td>
<td>“Why does this example…?”</td>
</tr>
<tr>
<td>Illustrate</td>
<td>State in one word</td>
<td>Create visual</td>
</tr>
<tr>
<td>Indicate</td>
<td>Explain what is happening.</td>
<td>representations (concept</td>
</tr>
<tr>
<td>Interrelate</td>
<td>What part doesn’t fit?</td>
<td>maps, outlines, flow chart</td>
</tr>
<tr>
<td>Interpret</td>
<td>Explain what is meant.</td>
<td>organizers, analogies, pro/con grids) PRO</td>
</tr>
<tr>
<td>Infer</td>
<td>What expectations are there?</td>
<td>Note: The faculty member can show them but they</td>
</tr>
<tr>
<td>Judge</td>
<td>Read the graph (table).</td>
<td>have to do it.</td>
</tr>
<tr>
<td>Match</td>
<td>What are they saying?</td>
<td>Metaphors, rubrics</td>
</tr>
<tr>
<td>Paraphrase</td>
<td>This represents…</td>
<td>heuristics.</td>
</tr>
<tr>
<td>Represent</td>
<td>What seems to be…?</td>
<td></td>
</tr>
<tr>
<td>Restate</td>
<td>Is it valid that…?</td>
<td></td>
</tr>
<tr>
<td>Rewrite</td>
<td>Is it valid that…?</td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>Show in a graph, table.</td>
<td></td>
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<tr>
<td>Show</td>
<td>Which statements</td>
<td></td>
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<td></td>
<td>support…?</td>
<td></td>
</tr>
<tr>
<td>Summarize</td>
<td>What restrictions would you</td>
<td>add?</td>
</tr>
<tr>
<td>Tell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translate</td>
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</table>

**Level 3. Apply**
(Knowing when to apply; why to apply; and recognizing patterns of transfer to situations that are new, unfamiliar or have a new slant for students)

<table>
<thead>
<tr>
<th>Verbs for Learning Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply</td>
<td>Predict what would happen if</td>
<td>Modeling Cognitive apprenticeships “Mindful” practice –NOT just a “Routine” practice</td>
</tr>
<tr>
<td>Choose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dramatize</td>
<td>Choose the best statement that apply</td>
<td></td>
</tr>
<tr>
<td>Explain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generalize</td>
<td>Judge the effects</td>
<td>Part and whole sequencing</td>
</tr>
<tr>
<td>Judge</td>
<td>What would result if</td>
<td></td>
</tr>
<tr>
<td>Organize</td>
<td>Tell me what would happen</td>
<td>Authentic situations</td>
</tr>
<tr>
<td>Paint</td>
<td>Tell how, when, where, why</td>
<td></td>
</tr>
<tr>
<td>Prepare</td>
<td>Tell how much change there would be if</td>
<td>“Coached” practice</td>
</tr>
<tr>
<td>Produce</td>
<td>Identify the results of</td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Show</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sketch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produce</td>
<td>Identify the results of</td>
<td></td>
</tr>
</tbody>
</table>

**Level 4. Analyze**
(breaking down into part, forms)

<table>
<thead>
<tr>
<th>Verbs for Learning Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze</td>
<td>What is the function of…?</td>
<td>Models of thinking</td>
</tr>
<tr>
<td>Categorize</td>
<td>What’s fact? Opinion?</td>
<td></td>
</tr>
<tr>
<td>Classify</td>
<td>What assumptions…?</td>
<td>Challenging assumptions</td>
</tr>
<tr>
<td>Compare</td>
<td>What statement is relevant?</td>
<td>Retrospective analysis</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Differentiate</td>
<td>What motive is there?</td>
<td></td>
</tr>
<tr>
<td>Distinguish</td>
<td>Related to, extraneous to, not applicable.</td>
<td></td>
</tr>
<tr>
<td>Identify</td>
<td>What conclusions?</td>
<td>Reflections through</td>
</tr>
<tr>
<td>Infer</td>
<td>What does the author believe?</td>
<td></td>
</tr>
<tr>
<td>Point out</td>
<td>What does the author assume?</td>
<td>Debates</td>
</tr>
<tr>
<td>Select</td>
<td>Make a distinction.</td>
<td></td>
</tr>
<tr>
<td>Subdivide</td>
<td>State the point of view of…</td>
<td>Discussions and other</td>
</tr>
<tr>
<td>Survey</td>
<td>What is the premise?</td>
<td>collaborating learning</td>
</tr>
<tr>
<td></td>
<td>State the point of view of…</td>
<td>activities</td>
</tr>
<tr>
<td></td>
<td>What ideas apply?</td>
<td>Decision making situations</td>
</tr>
<tr>
<td></td>
<td>What ideas justify the conclusion?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is the relationship between?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The least essential statements are</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What’s the main idea? Theme?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What inconsistencies, fallacies?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What literate form is used?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What persuasive technique?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implicit in the statement is…</td>
<td></td>
</tr>
</tbody>
</table>

**Level 5. Evaluate**  
(according to some set of criteria, and state why)

<table>
<thead>
<tr>
<th>Verbs for Learning Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraise</td>
<td>What fallacies, consistencies, inconsistencies appear?</td>
<td>Challenging assumptions</td>
</tr>
<tr>
<td>Judge</td>
<td>Inconsistencies appear?</td>
<td>Journalizing</td>
</tr>
<tr>
<td>Criticize</td>
<td>What is more important, moral, better, logical, valid, and appropriate?</td>
<td>Debates</td>
</tr>
<tr>
<td>Defend</td>
<td></td>
<td>Discussions and other collaborating learning activities</td>
</tr>
<tr>
<td>Compare</td>
<td>Find the errors</td>
<td>Decision making situations</td>
</tr>
</tbody>
</table>

**Level 6. CREATE (SYNTHESIS)**  
(Combining elements into a pattern not clearly there before)

<table>
<thead>
<tr>
<th>Verbs for Learning Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose</td>
<td>How would you test?</td>
<td>Challenging assumptions</td>
</tr>
<tr>
<td>Combine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compose</td>
<td>Propose and alternative</td>
<td>Reflections through journalizing</td>
</tr>
<tr>
<td>Construct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create</td>
<td>Solve the following</td>
<td>Debates</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Develop | How else would you…? | Discussions and other collaborating learning activities
---|---|---
Do
Formulate | State and rule. |
Hypothesize | Design |
Invent
Make | Modeling |
Make up
Originate
Plan
Produce
Role Play
Tell

*From Peg Weissinger’s presentation on course design at the 2007 International Institute for New Faculty Developers.*

**BLOOM’S TAXONOMY AND TESTING MECHANICS**

Multiple – choice testing is often viewed a necessary evil in large classes, but used creatively they can test higher level thinking and have the advantage of providing a way to give students rapid feedback on how well they are achieving the course’s learning outcomes. In the next section I have included information on testing in general and multiple choices in particular.

**MECHANICS OF CREATING QUESTIONS**

When you begin to construct a test, really think about what you wish to test.

- Choose the type of student outcome.
  - Knowledge, mental skill, mental ability

- What content are you teaching/measuring?
  - Fact concept. Principle, procedure?

- What type of mental behavior are you developing?
  - Recall, understanding, Critical thinking, Problem Solving

Here are some shells/templates and the level of knowing they generally relate to

**Understanding:**

Which best defines ________?

Which is (un)characteristic of_______?

Which of the following is an example of_______?

Critical thinking (evaluating):

What is most effective (appropriate) for_______?
Which is better (worse) ________?
Which is most effective method for_______?
What is the most critical step in this procedure_______?
Which is (un)necessary in a procedure?
Critical thinking (predicting):
What would happen if…?
If this happens, what should you do?
On the basis of … what should you do?
Given … what is the primary cause of…?
Problem solving (given a scenario)
What is the nature of the problem?
What do you need to solve this problem?
What is a possible solution?
Effective Testing, with emphasis on Multiple choice testing

Presented by Clare Hasenkampf

October 8 2014

Part 1 Why do we test & how do align our testing with our teaching

Part 2 General Features of Tests

Part 3 Multiple choice testing

Part 1
Why do we teach?
Why do we test?

We teach to promote learning.

We test to
a) promote learning and
b) assess learning for feedback to students
c) assess learning for grades

The more you can unify these objectives, the better the learning and the happier the course

Testing should align with what your learning goals for the course are and the ways you help students achieve the goals.
Develop and communicate to students a set of clear learning objectives.
Create activities and assignments that support/encourage/demand these objectives.
Give students a chance to try and ‘fail’ (at low risk) and try again—i.e. give them feedback opportunities!
Test on the learning objectives in a way that you have provided training for (at least for the majority of the test.)

In well aligned (happy) courses

Part 2 General features of creating tests

The time to think about the design of your tests is at the time you are designing your course.
Consider:
What are your learning goals?
How will you promote their acquisition?
How will you test—both to promote learning and to fairly assess it?
Who will grade tests and how much time will it take?

Tips for excellent questions

Construct each item to test an important learning outcome.

Emphasize higher-level thinking rather than just recall because educational research on learning suggests that students (in part) adopt a shallow or deep approach to learning in a course, based on the type of assessments that are done.

BLOOM’S TAXONOMY RELATING LEVEL OF LEARNING AND ASSOCIATED ABILITY

<table>
<thead>
<tr>
<th>Learning level</th>
<th>Type of performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Remember</td>
<td>- be capable of recalling words, facts, convert, classify</td>
</tr>
<tr>
<td>2. Understand comprehend</td>
<td>- be capable of transposing, integrating and extrapolating</td>
</tr>
<tr>
<td>3. Apply</td>
<td>- apply concepts to solve problems</td>
</tr>
<tr>
<td>4. Analyze</td>
<td>- identifying key elements, relationships, and organizing principles</td>
</tr>
<tr>
<td>5. Evaluate</td>
<td>- Give expert opinions, judge</td>
</tr>
<tr>
<td>6. Create</td>
<td>- Synthesize different information &amp; make something new</td>
</tr>
</tbody>
</table>
When you construct questions, for both promoting learning and for assessing learning, draw on your knowledge of where students typically have misconceptions, difficulties, challenges with LOs.

Create questions that reveal to students where their knowledge is incomplete or flawed (after they see the answer).

Precourse diagnostics, one minute papers, email/office hour queries, feedback quizzes, performance on old tests - these are all good sources of questions.

Even if you have someone else grade; it is important you survey answers.

I encourage you to have your students do some writing for big tests even if you use a lot of MC.

Writing does not always have to be lengthy and there are ways to reduce the paperwork part.

Make your practice questions, examples, samples etc cover the same range of complexity and difficulty as your test questions.

Use some of your sample questions & practice questions on tests both in easily recognized forms and with variations that will stump shallow learners, but will not stump deep learners.

Use sample and practice questions to motivate students to learn and to do well on tests.

Tips for writing on tests.

Don’t use valuable writing time for testing recall, at least not if you have many students. Save writing for higher level learning goals.

Have students write only in the space provided!

Carefully write out an acceptable answer and be sure it fits in the provided space and can be parsed for marks. Repeat with a TA.
Tips for writing

Be very precise in the way you phrase the question and if it’s a lengthy essay try providing some scaffolding. This likely will improve quality and make the essay easier to grade.

It also helps model expert thinking processes.

Example— Hard to grade
Q1 Explain the theory of evolution and that of intelligent design. Which idea do you think is better? (14 pts)
Example instead try
Q1. Example –Easier to Grade
Evolution versus Intelligent Design
a) State the theory of evolution (2 pts).
b) Produce a definition of intelligent design.(2 pts).
c) What does each idea attempt to explain; what are key differences in the explanations? (4 pts)
d) What makes a theory or hypothesis scientific?(2 pts)
e) What does or could constitute scientific evidence to support each point of view (4 pts).
Continued next page

Have students write in the space provided
Provide space for each answer/form previous slide) separately

a) __________________________

b) __________________________

c) __________________________

d) __________________________

e) __________________________

Beware ‘explain’ (if you mean define and then explain)

Beware ‘compare’ (if you mean compare and contrast)

If you want students to weigh evidence be sure that is explicitly stated in the question.

PART 3. Assessing Student Learning
Using Multiple Choice Questions.

Presented by Clare Hasenkampf but with many ideas and examples developed by
David DiBautista’s MC presentations,
Corey Goldman MC tip sheet and
Linda Nilson’s book “Teaching at Its Best”

The purpose of a test for summative assessment (ie a grade) is to discriminate between those students who did accomplish the learning goals you set, from those students who did not accomplish the learning goals you set.
(Remember your tests or at least test style will be viewed by future students)

Be sure your test actually primarily measures the achievement of the goals you set.

Warning — A test constructed in a hurry tends to rely too heavily on simple recall of facts.
A multiple choice question has three components:
- The stem (the question)
- The most correct choice (the answer)
- 2-3 plausible distractors.

Which relationship best describes the positions of the two academics: Rick Halpem and Bruce Kidd?
A) Halpem is Dean, Kidd is Principal
B) Halpem is President and Kidd is Principal
C) Halpem is Principal and Kidd is Dean
D) Halpem is Principal and Kidd is President

Try the Item analysis component of the Test scanning report to help you see how reliably you are discriminating between those who have learned and those who have not.

The test scanning software scans all of the responses of all of the students and calculates their score.

Then it looks to see how often a correct answer is selected by the top quarter of the class and how often it was selected by the bottom quartile of the class.

Similarly it looks at how often and who chooses each distractor.

Note:
Really easy questions won’t discriminate, but you might want some like that for morale.

Really hard questions also have limited discrimination ability (because even good students are guessing).

Interpreting item analysis:

The “Distractor Item Analysis Report” is part of the report you get from Test scanning here at UTC.

The correct choice (indicated with an asterisk) should have a relative high positive value for the point-biserial and distractors should have a low value.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
<th>Point Biserial</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>15.00</td>
<td>1.00</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>10.00</td>
<td>0.67</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

To have a test with a high reliability score you want individual questions that have the correct answer to have a point-biserial value of at least .30 and typically you want distractors to have negative values.

You don’t need four distractors.
Remember the primary purpose of a test is to discriminate between those students who did accomplish the learning goals you set, from those students who did not accomplish the learning goals you set.

Use the item response file you get with your test scanning results to see how well your questions are achieving this discrimination.

Look for questions with correct answers with discrimination values of at least 0.25, but higher is better. And at least one good distractor which has negative values.

Distractors that are not chosen, or distract the students randomly are not of much use.

You can use these reports to accumulate good questions and eliminate (or improve) defective ones.

The act of writing test items is generally a four step process:
1. Identify the content and mental behaviour desired;
2. Write the stem in a question format;
3. Write the correct answer;
4. Write the distractors that have the same grammatical and content structure as the correct answer but are clearly wrong (to someone who has learned the material).

Tips for distractors
- All distractors should be plausible (sound good & and be chosen sometimes)
- the number of quality distractors is what is important
- two distractors that get selected sometimes is adequate and usually produces a good discrimination between learner and non-learner as 3 or 4 distractors
- Having four distractors is overkill & might lead to problems with the question.

More Tips for the distractors
To generate plausible distractors:
use student’s common errors on constructed response questions (i.e. fill in the blanks, short answers) or frequently asked (and answered) questions.
use distractors that are similar to the correct answer in content, length and complexity.
use words that sound important or have associations with the stem.
use distractors that are true, but do not correctly answer the question.

More Tips
Be mindful of your language and grammar, especially for distractors.

Use simple, clear language. It is not the time to impress students with your vocabulary. Don’t you jargon and don’t use cultural references also it is part of your course.

Tips for creating good questions
The stem of the item should usually be in the form of a question.

Items put in the form of a question have better discriminating ability

A stem like
“___________ is the Dean.”
will have less ability to discriminate than will a stem like
“Who is the Dean at UTSC?”
Tips for creating good questions

Watch out for cognitive load (how much information students can hold in their working memory)

- The stem of the item should contain only one question;
- Use simple and clear expressions.
- Give the stem of the question in positive form and avoid negatives;
- If you do need to use a negative construction underline the negative
  *e.g. Which person listed below was not a mayor of Toronto
- Avoid double-negatives (NOT in stem, and “not” in response)

Tips for creating good questions

Avoid give-aways

Make sure all the answer choices are grammatically consistent with the stem of the question and avoid verbal clues that lead to the correct answer;

- Check carefully for spelling errors, especially in the distractors.
- Avoid the use of “all of the above” and “none of the above”; these don’t usually have good discrimination power; for example, if students know one item is false they know “all of above” is not correct.
- If students know one item is true they know “none of the above” is not correct.
- *Exception: if there are only two choices plus all of above

Make sure that each independent item is independent of other items in the test i.e. make sure that some questions do not provide cues for the answers to others.

Tips for creating good tests

Avoid freak outs

- Start the test off with a few warm up questions that are fairly easy
- Vary the position of the right answer in a random way;
- Allow enough time in test for
  - Room start differences (bigger rooms take longer to settle)
  - Fire alarms
  - So students don’t have to rush
  - Rule of thumbs: 1.8 min/question
    - 100 questions in 180 minutes, or 40 questions in 75 minutes (*for in class tests I have 25 per 100 min)
  - Allow more time per question if you are testing at higher cognitive levels *i.e. problem solving and analytical reasoning (*for in class tests I have 25 per 100 min)
  - Take the test yourself, note the time, allow at least twice as much!

Remember you are trying to discriminate based on learner versus non-learner, NOT language or culture.

Be mindful of English language learners and avoid slang and idiomatic English.

Also unless it is part of what you are testing, try to avoid putting the question in the context of any one culture.

Interpretive Exercises (Context-Dependent Items)

One very effective way to probe understanding and skill development is with Interpretive Exercises

A paragraph, graph, drawing etc. is given to the student and they must answer a series of questions about the item.

---

1. Which of the following characteristics of the correct answer is particularly desirable?
   - A. It is selected more frequently than any of the distractors.
   - B. It is selected more frequently than all of the distractors put together.
   - C. High-scoring students are more likely than low-scoring students to choose it.
   - D. Students with very little knowledge of the topic are likely to answer correctly by guessing.
Interpretive Exercise (courtesy David DiBattista)

Instructions: The trace lines in the graph shown below were derived from a four-choice multiple-choice item. Answer the questions that follow.

2. How would Distractor 1 be characterized?
   A. plausible and a poor discriminator
   B. plausible and a good discriminator
   C. implausible and a poor discriminator
   D. implausible and a good discriminator

3. How would Distractor 1 be characterized?
   A. plausible and a poor discriminator
   B. plausible and a good discriminator
   C. implausible and a poor discriminator
   D. implausible and a good discriminator

The Cool Web
Children are dumb to say how hot the day is,
How hot the scent is of the summer rose,
How dreadful the black waters of evening sky,
How dreadful the tall soldiers drumming by.

But we have speech, to quell the angry day,
And speech, to dull the rose’s cruel scent.
We spill away the overhanging night,
We spill away the soldiers and the fight.

There’s a cool wind of language which us in,
Raising from too much joy or too much fear.
We grow sea green at last and Soldly die
In brimness and volatility.

But if we let our tongues lose self-possession,
Throwing off language and its watery cape
Before our death, instead of when death comes.
Facing the wide glare of the child’s day,
Facing the rose, the dark sky and the sound:
We shall go mad and die that way.
Robert Graves (1895-1985)

Cool Web questions come Courtesy of Professor Brent
MacKinnon, Department of English, University of PA via D.O.

David DiBattista’s Reading List


These books provide background in assessment techniques in general and also have helpful information specifically about multiple-choice testing.


These journal articles examine the guidelines for writing multiple-choice items.

Assignment Evaluation Checklist

Use the following checklist to help you evaluate your assessment plan.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have articulated the learning objectives for my course.</td>
<td></td>
</tr>
<tr>
<td>The types of assignment I’ve chosen will help students achieve those learning objectives.</td>
<td></td>
</tr>
<tr>
<td>The assignment types are common genres within my discipline.</td>
<td></td>
</tr>
<tr>
<td>The assignment questions and formats fit with the readings and other course materials.</td>
<td></td>
</tr>
<tr>
<td>The assignments require appropriate cognitive skills for the level of the course.</td>
<td></td>
</tr>
<tr>
<td>I have provided a variety of assignments (or types of question), so that students will not be assessed by only one measure.</td>
<td></td>
</tr>
<tr>
<td>I have included some informal, low-stakes assignments to help students master both the content and skills needed to complete larger assignments.</td>
<td></td>
</tr>
<tr>
<td>Taken together, the assignments will help students master the content of the course.</td>
<td></td>
</tr>
<tr>
<td>Taken together, the assignments will help students build related skills essential to my discipline (e.g. research, communication, problem solving).</td>
<td></td>
</tr>
<tr>
<td>I have resources (e.g. handouts, exercises, planned instruction, or library support) to adequately support students in completing the assignments.</td>
<td></td>
</tr>
<tr>
<td>Students will not have to complete assignments on content that hasn’t yet been covered in lectures.</td>
<td></td>
</tr>
<tr>
<td>Assignment due dates are spaced at reasonable intervals throughout the course.</td>
<td></td>
</tr>
<tr>
<td>I have clearly articulated expectations for each assignment.</td>
<td></td>
</tr>
<tr>
<td>I have developed a rubric for how assignments will be graded.</td>
<td></td>
</tr>
<tr>
<td>I have ensured that students will receive formative feedback on early assignments to help them complete later assignments.</td>
<td></td>
</tr>
<tr>
<td>The number of assignments is a reasonable workload for the length of the course.</td>
<td></td>
</tr>
<tr>
<td>I (or my TAs) will have enough time to mark the assignments and return them promptly.</td>
<td></td>
</tr>
<tr>
<td>My assessment plan complies with university regulations.</td>
<td></td>
</tr>
</tbody>
</table>

Prepared by Allyson Skene, 2010
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1. Turnitin.com is a tool that will assist in detecting textual similarities between compared works. Instructors must exercise their independent professional judgment in, and assume responsibility for, determining whether a text has been plagiarized or not.

2. Students must be informed at the start of the course that the instructor will be using Turnitin.com.

3. The course syllabus must include the following statement: “Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of the Turnitin.com service are described on the Turnitin.com web site”.

4. Turnitin.com is most effective when it is used by all students in a particular course; however, if and when students object to its use on principle, a reasonable offline alternative must be offered. There is a wide variety of non-electronic methods that can be used to deter and detect plagiarism; for example, to require that all rough work is handed in with the paper or that the student include an annotated bibliography with the paper. We ask that instructors consult with the Centre for Teaching Support & Innovation when establishing these alternatives.

WHAT IS TURNITIN.COM AND HOW DOES IT WORK?
Turnitin.com is an electronic resource that assists in the detection and deterrence of
plagiarism. Instructors using this tool set up “virtual classes” to which students submit their assignments electronically. Each submitted paper is checked for textual similarity using millions of resources stored in the Turnitin.com database. Once analyzed, originality reports are generated within 5-10 minutes for instructors, highlighting questionable areas. The Turnitin originality reports can save instructors time in the investigation of the originality of student work and can allow for efficient citation verification. Using this information, as well as any other relevant information, it is then up to the individual instructor to determine if these passages represent plagiarism.

All work submitted to Turnitin is checked against three databases of content:

- A current and archived copy of the publicly accessible Internet (more than 5 billion pages updated at a rate of 30-40 million pages per day);
- Millions of published works (from ABI/Inform, Periodical Abstracts, Business Dateline, ProQuest, the Gutenberg Collection of literary classics, and tens of thousands of electronic books);
- Millions of student papers submitted to Turnitin since 1996.

WHAT ARE THE ORIGINALITY REPORTS?
For each paper submitted to your account an Originality Report is generated by Turnitin. This report highlights any suspicious passages that match other materials in the Turnitin database or on the web. Please remember that these reports do not indicate whether a student has plagiarized but simply help to identify sources that contain textual similarities in submitted papers. The instructor must use his/her own judgment to determine if plagiarism has occurred. For information on what constitutes plagiarism at UofT consult the Code of Behaviour on Academic Matters (www.governingcouncil.utoronto.ca/policies/behaviorac.htm) and/or your department or division.

HOW DO I SET UP AN ACCOUNT?
For new accounts, please contact portal.help@utoronto.ca.

IMPORTANT CONTACTS
Instructors who have questions about the process for the handling of academic offences should contact their department/division (in many cases this would be the undergraduate chair or associate chair/dean). In addition, divisional offices (or individuals) are also available to provide advice regarding particular academic integrity issues or to discuss a specific situation. These include:

- Kristi Gourlay (Manager, Office of Student Academic Integrity) at 416-946-5810 or kristi.gourlay@utoronto.ca
- Lucy Gaspini (Manager, Academic Affairs, Office of the Dean, UTM) at 905-828-3964 or lucy.gaspini@utoronto.ca
- Eleanor Irwin or Wayne Dowler (Dean's Designate for Administration of the Code of Behaviour for Academic Matters, University of Toronto at Scarborough) at academic-integrity@utsc.utoronto.ca
ADDITIONAL RESOURCES
Frequently Asked Questions about Turnitin.com -
www.teaching.utoronto.ca/teaching/academicintegrity/turnitin/faq.htm

Turnitin.com: A Guide for Teaching Assistants –
www.teaching.utoronto.ca/teaching/academicintegrity/turnitin/teaching-assistants.htm

Academic Integrity at the University of Toronto - www.academicintegrity.utoronto.ca

Code of Student Conduct - www.governingcouncil.utoronto.ca/policies/studentc.htm

Code of Behaviour on Academic Matters –
www.governingcouncil.utoronto.ca/policies/behaveac.htm

Document from:

CENTRE FOR TEACHING SUPPORT AND INNOVATION
www.teaching.utoronto.ca/teaching/academicintegrity/turnitin/e-resource.htm
Part 5: Your Teaching Professional Development
Professional and Faculty Development
for UTSC Instructors

GRANTS AND AWARDS

Teaching Grants
There are several teaching grant programs to which instructors can apply for funds to enhance their courses for deeper student engagement. The CTL grant program (with two rounds per year) offers four different grants: enhancement, equipment, assessment, and professional development, and a software grant (through IITS). Annually, the UT Provost’s office offers LEAF and ITIF grants.
www.utsc.utoronto.ca/ctl/teaching-grants

Teaching Awards
There are various awards that recognize excellence in teaching – UTSC, UT, provincial and national awards. There are also TA awards.
www.utsc.utoronto.ca/ctl/teaching-awards

EVENTS

Faculty Orientation – Teaching at UTSC and Engaging Students for Deep Learning
This event is offered at the start of each semester for UTSC instructors, either new to teaching or new to UTSC. It typically covers fundamentals of creating and teaching a well-run course, including engaging students for ‘deep learning’, key teaching policies, educational technologies, working with TAs, support for your courses and your students, and more.
www.utsc.utoronto.ca/ctl/new-faculty-orientation

Director Workshops
CTL’s Director holds workshops on Teaching Portfolios and Teaching Awards and Grants during each of our three Reading weeks.
www.utsc.utoronto.ca/ctl/ctl-directors-workshops

Educator Exchange Workshops
This workshop series offers one or two teaching-related events per month from September to April each year. Topics can include presentations/discussions on: engaging students for deep learning, working with TAs, developing better multiple-choice exams, innovative teaching practices, and more.
www.utsc.utoronto.ca/ctl/educator-exchange-workshop-series

Instructional Skills Workshops (ISW)
The ISW program is offered twice yearly in April and December. ISWs are an intensive 24-hour event, consisting of a laboratory approach to the improvement of teaching and learning. Participants review basic ideas about teaching, check current practices, are encouraged to try new instructional strategies and techniques, and receive feedback from teaching peers.
www.utsc.utoronto.ca/ctl/instructional-skills-workshop-isw
Celebration of Teaching and Faculty Showcase
This annual event (typically in April each year) is an opportunity to celebrate UTSC’s teaching excellence, and share instructional knowledge and expertise. This event usually includes a noted plenary speaker, roundtable discussions and/or concurrent sessions, and a poster/interactive display session.

TA and Grad Student Programming
CTL coordinates a suite of programming (including TA training) that your grad students and/or TAs can attend to enhance their teaching skills and professional development.
www.utsc.utoronto.ca/ctl/grad-students

Our website - www.utsc.utoronto.ca/ctl/ - lists more events and opportunities for you.

There are also tricampus programs and grant opportunities that you are welcome to participate in.
See - teaching.utoronto.ca/about-ctsi/.
The document is under revision; the current version can be found here -
Part 6: Support for Your Courses
WORKING WITH YOUR TAs:
Six Key Areas for TA Training & Development

ROLES & RESPONSIBILITIES

1. Review with your course TAs the Big Picture: what are the key learning objectives of the course?
2. What are your goals and the student learning outcomes for any tutorials/labs associated with the course?
3. What kinds of teaching approaches will your TAs be using in the tutorials/labs? What kinds of learning activities will they be expected to lead with students? (NOTE: this will help you decide what training your TAs should receive – see point 3.a.ii. below.)
4. How do TAs fit into the course as a whole? How does their work help build towards course objectives?
5. For which portion(s) of the course are TAs directly responsible?
6. For what elements of student support or student skills developments are TAs responsible? (i.e. writing skills? research skills? should they refer students who are in difficulty or crisis, and if so, how and where?)
7. What are the students responsible for doing?
8. What are your obligations towards the TAs?

BOUNDARIES

1. Discuss limitations of TA role.
2. TAs should not be re-lecturing course material – they are not yet professors nor are they different versions of you!
3. TAs cannot go “rogue” and change due dates or design tests or assignments on their own without consulting you (explain there are clear procedures for diverging from a syllabus and they must avoid doing so.)
4. TAs are not allowed to handle cases of suspected plagiarism, so let them know what the process is if they encounter it.
5. Provide guidance on how to establish and maintain boundaries with students
6. Advise that they should inform you immediately if there is a possible conflict of interest between them and a student (e.g., personal relationship with someone in the course.)
7. Discuss their working relationship with you and the Course Coordinator (if applicable.)

DESCRIPTION OF DUTIES - QUESTIONS TO CONSIDER WHEN DRAWING UP THE LIST OF YOUR DUTIES FOR YOUR TAs

1. Training
   a. A minimum of 3 hours of employment training is mandatory in a first TA appointment at U of T; first-time Course Instructors are to receive 6 hours of training.
   b. TAs who lead tutorials or labs must receive one hour of training that is directly relevant for the instructional focus of the tutorial or lab. This means that you should identify which of the University’s 4 tutorial categories your TAs should be trained in: discussion teaching, skill development, review, lab/practical. If the TAs lead a large tutorial, as determined by a U of T formula, they must receive an additional hour of training for adapting teaching techniques to larger tutorials.
   c. Course-specific information should be provided in a pre-course meeting (this meeting should be indicated in their contract, as should all course-specific meetings.)
   d. Additional training specific to each department or course may be specified in the TA’s contract.
   e. Relevant, key departmental, divisional and institutional policies and procedures must be communicated to TAs. When the TAs receive this information, either at the mandatory training session or the pre-course meeting, have them sign for receipt of any hard copy information.
   f. Consider getting a senior TA involved in training and pre-course meetings, if possible
2. Preparation
   a. Clarify what TAs are expected to already know.
   b. Prep time covers preparation of instructional materials, not learning of subject content.
   c. How much time should it take to prepare a typical lab/tutorial section/class?
   d. How much time should it take to prepare a quiz/test/essay question/exam?
   e. Provide strategies for time management (both in terms of preparing a realistic amount of material for a set amount of time, and managing time while teaching within a section or lab)
   f. If possible, provide a sample lesson plan or a sample assignment to use as a model.

3. Contact – describe what counts as “contact time” with students
   a. How and when are office hours to be conducted, if applicable? What should happen during office hours?
   b. Consider out-of-the-classroom contact (can TAs meet with students in cafes or in the library to review class material)?
   c. Virtual contact: how much email is too much email? Can TAs grade assignments that are submitted via email attachments? Are TAs even expected to correspond with students via email? A specific time limit on e-mail use would be helpful
   d. Will TAs be required to attend lectures? If so, this must be included in the DDAH (Description of Duties and Allocation of Hours form).

4. Grading
   a. Provide explicit instructions and guidelines for evaluation of assignments
   b. If applicable, provide a rubric.
   c. If possible, provide a sample graded assignment (either use an anonymized copy from a former student in the course, or invent your own with comments.)
   d. If possible, run a group grading session before TAs must mark the 1st assignment or exam; get TAs to mark the assignment first individually and then come together to discuss the comments and grades given—TAs should explain and justify their feedback and marks.

5. Other Duties
   a. Exam invigilation/proctoring
   b. Designing the mid-term or final exam.
   c. Assignment or test design
   d. Management of discussion or student questions on the portal (Blackboard)
   e. Working as a “Lead TA”
   f. Preparation of study guides or manuals for students
   g. Uploading information into the portal (e.g. grades) or management of course materials in the portal
   h. Photocopying.

EXPECTATIONS
1. Your expectations regarding TAs: preparedness, content competence, overall professionalism (punctuality, etc), conduct with other TAs in the team, conduct in class, conduct outside of class, quality of feedback given to students, availability/responsiveness.
2. Your expectations for students: in-class conduct, how students should progress through the course (what are potential blocks that you might anticipate?), your definition of “student success”
3. What TAs should expect from students: let the TAs know what kinds of students they’ll be working with in this course.
4. What the TAs can expect from you.

COMMUNICATION
1. How will you stay in touch with your TAS?
   a. Mass emails?
   b. Portal community set up for course TAs?
   c. Online newsletter?
2. How often should you check in with them and they with you?
3. How should TAs communicate with students? (What constitutes acceptable or unacceptable discourse?)
4. TAs should acknowledge all course information and official documents received – if possible, in writing.

EMAIL ETIQUETTE (does your department have a specific email policy?)

1. Recommend TAs adopt office email etiquette; assume that messages are public and could be read by anyone; all messages should have a professional tone; messages should be brief.
2. TAs should acknowledge ALL emails from you and from their students – they don’t need to answer every message, but a brief acknowledgement should be sent
3. Recommend to TAs that they:
   - Be concise, polite
   - Avoid teaching complex or well-lectured material via email
   - Never argue via email
   - Never give out grades via email (or discuss grades at all)

ADDITIONAL SUPPORT – SOME OPTIONS

1. If at all possible, share your lesson plans, representative teaching materials and best strategies.
2. Encourage TAs to also share their materials; perhaps build a course repository for instructors.
3. Provide a list of useful websites and resources, as well as a list of contacts.
4. For international TAs, provide a list of “gambits”, sentence fragments (teaching phrases) they can use in specific situations when speaking with students.
5. Also for international TAs, provide a list of vocabulary or terms useful for teaching in your discipline.
6. Perform in-class observations for your TAs and invite them to observe you teaching.
7. Organize informal gatherings (brown-bag or pizza lunches, coffee breaks) for TAs to vent frustrations and raise issues, concerns or questions.
8. Invite senior TAs to pair up with junior TAs (the “buddy” system)
9. Identify a mentor in the department for you (a senior colleague with experience managing a TA).

Questions regarding the CUPE 3902 Unit 1 collective agreement should be directed to the Designated Authority in your department or to Labour Relations.

From the Centre for Teaching Support and Innovation –
http://teaching.utoronto.ca/teaching-support/working-w-grads/six-areas/.
INCLUSIVE TEACHING

“A university student with disabilities wants to learn like any other student. Learning requires a little creativity and an open mind.” – a UTSC student

This document was developed by Tina Doyle, AccessAbility Services, and Nancy Johnston, CTL.

What is inclusive teaching?
Inclusive teaching is an approach to curriculum design that integrates active learning methods to respond to student learners who come to our classrooms with a breadth of different learning styles, abilities, and backgrounds. Universal design in education (or Universal Instructional Design) is a pro-active method used to engage and anticipate diverse student learning needs and styles rather than react to individual learning concerns as they arise. The principles and methods of UD or UID can help you to:

- promote accessibility, and fairness
- develop inclusive teaching methods that minimize unnecessary effort
- improve clarity, simplicity, and consistency in communication
- build flexibility in assessment and approaches
- create a supportive student environment, and plan to minimize accommodation needs.

Student Rights and accommodation:
Canadian universities and colleges are committed ethically and legally to make their campuses accessible and their curriculum inclusive. The University of Toronto, like other campuses, recognizes the rights of all students. Equal access to education is recognized as integral to the university’s larger plan for diversity, human rights, and ethical practice in education. Students are entitled to equitable treatment and reasonable access to facilities and services. Some typical accommodations may include note-taking support, requests for electronic copies of course materials (for alternative formatting), use of technical devices, exam and test support outside of class, and additional time during in-class or test taking.

Some tips for Instructors:

- Invite students with disabilities to talk to you about accommodation needs in your office hours. Avoid asking for personal or medical information.
- Ask AccessAbility Services, CTL or your dept. when making complex accommodations.
- Keep Accommodation letters and requests confidential. Don’t make a student’s accommodation information (such as note-taking needs) public in the classroom.
- TAs should direct accommodation requests to the instructor.

Student Experience and Inclusive Practices
Pre-planning your course and introducing inclusive strategies support a breadth of student needs and may set groundwork for accommodation. Building some flexibility in your course design and
considering alternative methods of testing and class activities can reduce time and energy adapting later to student needs. The most common accommodation requests are:

- Note-taking in the classroom
- Use of technology in the classroom (such as laptops for notes)
- Providing course materials, such as lecture slides
- Alternative testing, such as alternative testing sites (with AccessAbility Services).

**Students with Disabilities Offer Advice on Inclusive Teaching**

We asked students registered in AccessAbility Services to speak about their positive learning experiences at UTSC. Students offered these strategies and suggested they would also benefit all students:

1. Provide a syllabus that communicates deadlines, grading expectations, readings.
2. Offer a regular break during 2-hour lectures.
3. Make course materials available electronically; post lectures or class outlines before class to promote participation.
4. Use adapted or new technology with a variety of other teaching methods.
5. Be available in regular office hours.
6. Create a welcoming environment that includes students with disabilities: use an accessibility statement.*
7. Reduce unnecessary learning barriers that may add stress. Support student use of note-takers and other learning assistants.
8. Support student use of assistive devices (such as recorders, FM systems).
9. Break class activities and assignments into steps; scaffold or relate assignments to support learning goals.

*The following is recommended by CTL/AA: Accessibility: Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible. I will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. Contact them at (416) 287-7560 or ability@utsc.utoronto.ca.

**Bibliography**

ACCESS Project. 2008. The History and Philosophy of UDL. Colorado State U.


How Can We Help ESL Students In Our Classes?

Introduction

ESL students have to cope with enormous pressures related to their lack of ability to communicate effectively in English as well as their different cultural conditioning and expectations. Experience working with ESL students at the English Language Development Centre and elsewhere provide evidence on how hard ESL students work to meet academic requirements. Many make dramatic progress in their courses when they receive the necessary support and encouragement.

Almost half the students in our classes speak English as their second (and perhaps third or fourth) language. With their diversity of experience, they can contribute greatly to discussion and sharing within their courses. Unfortunately, many ESL students struggle with various aspects of communication in an academic context. Students who are aware of ESL and English language development support that help them meet their academic needs are generally able to progress further and faster than those who struggle quietly.

Here are some ways in which you can support the ESL students in your class and assist them in getting the most out of your class.

Oral and Written Communication

- Build vocabulary and concept learning into lessons
- Speak more slowly in class
- Write key concepts or terms on the board
- Print or write legibly to reduce time deciphering instructions
- Avoid too many abbreviations or shorthand versions
- Offer an outline or agenda (class outlines; print instructions)
- Use a variety of graphic organizers to show relationships between ideas, concepts, and facts

Minimize "unnecessary noise"

- Reduce use of culturally specific slang, idioms, jokes or references to Canadian or American culture
- Provide context for cultural references when significant
- Emphasize your complex ideas/concepts

Encouraging Participation

- Organize group work with attention to group dynamics
- Encourage diverse groups for discussion
- Instruct students on positive/constructive feedback in peer work
- Encourage participation and direct questions to ESL students
- Incorporate a variety of ways to participate (online responses, submitted questions, small group work)

Oral Presentations

- Build some flexibility for group presentations
- Encourage peer or group participation for mutual support
Assignments design

- Provide written instructions
- Repeat oral instructions with written ones
- Define plagiarism and disciplinary methods of referencing by examples

Grading Remarks and Criteria

- Provide students with the grading criteria to explain relative significance of grammar issues
- Encourage markers to provide substantive feedback or final explanations for grades.
- Use a few full sentences rather than multiple single word comments

Encourage all students to use other support

- Refer students to the English Language Development Centre for individualized help.
- Review and announce ELD services such as Cafes/seminars/workshops at the English Language Development website

The English Language Development Centre (ELDC)
More details of faculty support are available on the ELDC website:
http://www.utsc.utoronto.ca/eld/faculty-support

For more information, please contact: Dr. Elaine Khoo, Coordinator (ELDC) at (416) 287 – 7502 (khoo@utsc.utoronto.ca), or Heather – Lynne Meacock, Lecturer (ELDC) (meacock@utsc.utoronto.ca).
SERVICE LEARNING and OUTREACH

WHAT IS SERVICE LEARNING?

It’s a pedagogical model linking academic content with direct practice through critical reflection. Students actively apply academic concepts and approaches, in the context of their communities. Students gain a deeper understanding of the subject matter, as they exercise their knowledge.

How can the SLO program help you?

We can help you integrate Service Learning into your courses by:
• collaborating with you to create a placement(s) for students in our CTLB03 Introduction to Service Learning Course.
• providing information on service learning theory (how to integrate, and theoretical knowledge)
• providing resources (research, literature, sample exercises, activities)
• guest speaking (service learning theory, reflective writing, ePortfolio creation)
• and more!

How can we help your students?

• You can create an ‘in-reach’ placement opportunity in one of your courses. The successful applicant(s) can provide guidance and support to current class students, enriching their learning, through extra activities.
• You can encourage one of your very good students who has completed the course to apply for a Service Learning placement with your course. The successful applicant, having just navigated through your course, has a unique perspective, and will benefit and gain new skills by working with students currently taking the course.

Why does Service Learning work?

• Student motivation increases when academic knowledge is grounded in a meaningful, relevant context.
• Understanding of concepts and approaches is deepened as knowledge is transferred from one context to another (applied across different situations and environments).
• Comprehension is enhanced when knowledge is broken down into fundamental concepts.

Contact us!

SLO Coordinator: Dr. Kamini Persaud, kpersaud@utsc.utoronto.ca
Assistant Coordinator: Janice Patterson, janicecp@utsc.utoronto.ca

Website: www.utsc.utoronto.ca/ctl/service-learning-outreach
Email: slo@utsc.utoronto.ca
WHAT ARE FSGS?
Facilitated Study Groups (FSGs) are (2 or 3x) weekly study sessions for students taking selected UTSC courses, and who want to improve their understanding of course material and improve their grade.

WHAT HAPPENS IN AN FSG SESSION?
Students compare notes, develop study strategies, and practice testing themselves on course material. Course material is NOT re-lectured. FSGs are lead by a student who has previously taken the course. FSG sessions are voluntary, and students are welcome to attend as many or as few FSG sessions as they want!

CAN FSGS HELP MY STUDENTS?
Research shows that students who attend FSGs regularly can achieve better grades.

INSTRUCTOR ROLE
Pre-semester
• Recommend several good students as possible Facilitators to the FSG Coordinator. The coordinator will then do interviews, and hire one (max. 2) facilitator. If you can’t recommend any students, the Coordinator will attempt to find a Facilitator from the group of current Facilitators, or students who have applied independently to the program.

• Decide how Facilitators can communicate (electronically) about FSG sessions to students in the course. The FSG Coordinator will provide you with the Facilitator’s UTORid. With that,
the Facilitator can be added as **Coursebuilder** to the course’s Blackboard page (no access to confidential information but has the ability to make announcements).

**During the semester**

- In the first class of the semester, please allow the Facilitator(s) and the FSG Coordinator to **introduce FSGs** (2 – 4 minutes in total).

- The Facilitator will circulate a **one-page survey in the first week** of class to determine the best time to run sessions, and the FSG Coordinator will create an online survey of your class (through Blackboard) to determine best times to set FSGs. The FSG session times will be confirmed by the second week of class, with FSGs starting either late in the second week of class, or the start of the third week.

- **Advertising**: once FSG times are finalized, please allow the Facilitator to announce days/times in class and hand out fliers. Also, please allow the Facilitators put FSG advertising on your office door *(optional)*. Facilitators will also want to make occasional in-class, in-person announcements about FSGs, and occasional online ones (particularly in the case of announcing session time changes and topic updates).

- The FSG Coordinator will create an **end-of-term (via Blackboard) survey** of all students (both those who attended FSGs and those who did not attend). This survey will likely be done in the second last week of class. The Facilitators will announce surveys to students in their sessions as well as via Blackboard announcements. These surveys provide valuable qualitative feedback for the program and provide information about how training could be modified or improved.

- If possible, please provide a **course textbook** to the Facilitator to use in the sessions if he or she does not already have one. This will be returned to you at the end of the semester.

**After the semester**

Results describing the impact of the FSG program supporting your class will be tabulated within two-three months after the end of the semester, and provided to you.

For more information, see [utsc.utoronto.ca/ctl/facilitated-study-groups-fsg](http://utsc.utoronto.ca/ctl/facilitated-study-groups-fsg).

Contact: Dr. Cindy Bongard (Coordinator)
Email: [bongard@utsc.utoronto.ca](mailto:bongard@utsc.utoronto.ca)
Phone: 416-208-2897
UTSC Writing Centre Support for Instructors

The UTSC Writing Centre offers one-to-one support for UTSC students on their academic writing. We work with students in all years of study, from all disciplines taught at UTSC, and at any stage in the writing process. Please refer your students to us! We also support instructors directly in the following ways:

**Course and Assignment Design**
We can support you in embedding writing into your course, whether writing to learn activities, one or more formal writing assignments, or presentations. We may be able to develop support materials specifically for your students. We can also help you design and troubleshoot a new writing assignment or revise an existing one. Contact us while you are designing or redesigning the course or assignment, provide us with relevant materials and learning goals, and we will meet in-person or over the airwaves.

**Customized in-class workshops**
We partner with you to develop and deliver an in-class writing workshop customized to your course/assignments and your students. We can

- Introduce a new genre of writing
- Teach a skill relevant to your course/assignments
- Run a peer review session
- Intervene at a particularly challenging stage in the writing process
- Motivate students

Contact us in the previous term or early in the term, and provide us with your syllabus, assignment, and concerns. We will meet to discuss the workshop. Workshops can be 20 to 90 minutes in length. Note: it is important that you attend the workshop to offer feedback and answer questions.

**TA Training**
We partner with you to train your TAs in working with student writing assignments and build their skills and confidence in supporting writing. Training is tailored to your course and can include grading strategies, giving useful formative feedback, using reading and writing effectively in tutorials, promoting academic integrity.

**Writing guides**
The Writing Centre has a wide selection of writing guides tailored to UTSC students. We encourage you to review these, choose the ones most relevant to your students, and post these directly on your course Blackboard site. We are happy to consult with you on key areas. With sufficient advance notice, we can also partner to develop a resource specifically for your students and assignment.

**Contact us**
Dr. Nancy Johnston, Writing in the Disciplines Coordinator, The Writing Centre, 416-208-4767
Johnston@utsc.utoronto.ca

*Please note: Like you, we have limited time and resources. Support we’re able to provide may be limited by factors such as when you contact us in the term and other courses we’re already supporting. However, we will provide the best support we can within our limits, and may be able to work towards fuller support in future terms.*

July 2017

http://www.utsc.utoronto.ca/twc/
Supporting Academic Integrity Through Writing and Research Assignments: 
*Strategies for Instructors*

1. Incorporate academic integrity into your course design

- Include an academic integrity statement in your syllabus
  
  Build Your Own Academic Integrity Statement:  [www.artsci.utoronto.ca/osai/instructors/Build-Your-Own%20AI%20Statement.docx](www.artsci.utoronto.ca/osai/instructors/Build-Your-Own%20AI%20Statement.docx)

- Consider breaking larger assignments into steps or smaller assignments (often called ‘scaffolding’). Among the benefits, this practice may make plagiarism more difficult
  
  Assignment Scaffolding:  [https://ctl.utsc.utoronto.ca/technology/sites/default/files/scaffolding.pdf](https://ctl.utsc.utoronto.ca/technology/sites/default/files/scaffolding.pdf)

- Ensure consistent assessment of academic integrity issues. For example, consider using a rubric (which include criteria relevant to academic integrity) to ensure consistent marking across tutorial sections. You may also wish to provide your TAs with some guidance on interpreting Turnitin.com reports, to ensure they are all assessing the reports in the same way.

- Consider practices recommended by U of T Writing Centres for deterring plagiarism
  
  Deterring Plagiarism:  [http://writing.utoronto.ca/teaching-resources/deterring-plagiarism/](http://writing.utoronto.ca/teaching-resources/deterring-plagiarism/)

2. Discuss academic integrity with your students

- Define academic integrity and ensure students understand what it is.
  
  Academic Integrity, what is it exactly:  [http://www.utsc.utoronto.ca/vpdean/academic-integrity-matters-what-it-exactly](http://www.utsc.utoronto.ca/vpdean/academic-integrity-matters-what-it-exactly)

  Academic Integrity Matters:  [https://utsc.utoronto.ca/aacc/academic-integrity-matters](https://utsc.utoronto.ca/aacc/academic-integrity-matters)

- Emphasize that academic integrity is a serious offence that can have negative effects on students’ academic careers.

  Classroom strategies:  Talking about Academic Integrity [http://academicintegrity.utoronto.ca/classroom-strategies-talking-about-academic-integrity](http://academicintegrity.utoronto.ca/classroom-strategies-talking-about-academic-integrity)

- Highlight practices of your own discipline, providing and discussing relevant examples. Model academic integrity through course materials, readings, slides etc. Encourage students to ask questions

- Encourage students to attend the campus Academic Integrity Matters workshop

  For more information please email:  [integrityadmin@utsc.utoronto.ca](mailto:integrityadmin@utsc.utoronto.ca)
3. Ensure your students have academic skills needed for your assignments.

✓ Identify academic skills that students will need to complete your assignment. (Examples: Writing, paraphrasing/summary, research, using citation etc.) Consider if they have these skills, or if there are gaps in their academic skills.

✓ If needed, help students learn academic skills needed to complete your assignment. Contact the English Language Development Centre, Library, Math and Statistics Learning Centre, or Writing Centre for support.

4. Encourage student self-evaluation of their work to ensure academic integrity.

✓ Consider including an academic integrity checklist with your assignments to encourage your students to check their work.

ACademic Integrity Statement for Syllabi and Checklists for Assignment

✓ Consider allowing students to use Turnitin.com to assess their own work for any academic integrity violations.

5. Be aware of policies and procedures to follow if you suspect a student has committed an academic offence

✓ Ensure that you and your TAs know about the process for reporting suspected academic offences at UTSC. Familiarize yourself with procedures as required under the Code of Behaviours on Academic Matters.

Code of Behaviour on Academic Matters

Faculty and Staff Academic Integrity FAQ
http://www.utsc.utoronto.ca/vpdean/faculty-staff-faq-0

Tips & Templates
http://www.artsci.utoronto.ca/osai/instructors-and-staff/tips-templates
What do your peers say?

“Before I found it hard to understand the material of B07. And I had no interest. But after I got help from MSLC, my marks improved a lot and I actually enjoyed the learning process.”

“I always go to MSLC to ask homework questions and the tutors there are very patient and helpful.”

“MSLC services helped me understand the lectures better. It also helped me learn how to solve certain types of assignment questions.”

For more information, please contact:
Zohreh Shahbazi, Ph.D.
Math & Statistics Learning Centre
Coordinator
Phone: 416-287-5667
E-mail: shahbazi@utsc.utoronto.ca

We provide FREE drop-in hours and personalized help to improve your Math and Statistics proficiency in any discipline. Visit http://utsc.utoronto.ca/mslc/

• One-On-One Appointments
• Small Group Tutoring
• Virtual Tutoring
• Workshop and Seminars
• Summer Learning Institute for Mathematics
• Statistical Consultation

Centre for Teaching and Learning
The Math and Statistics Learning Centre (MSLC) provides free seminars, workshops, virtual tutoring, individual appointments, and small-group consultations to improve students' proficiency in various subjects of mathematics and statistics. Our main goal is to create a friendly, vibrant environment in which all students can come to appreciate the beauty and utility of mathematics.

One-on-One Appointments

Throughout the academic year, you can request an appointment by sending an email to the Centre. Appointments are 20 minutes long and can be booked one week in advance.

For math support, please email math-ad@ustc.utoronto.ca
For stats support, please email stats-ad@ustc.utoronto.ca

Small Group Tutoring

There are two drop-in locations on campus where instructors and TAs are present from 9 am to 7 pm to help students. Our TAs are instructed in how to engage students in active group discussions and interactions, instead of simply providing solutions.

AC312—General math & stats help
IC404—Specific math and stats courses

Virtual Tutoring

Look online for math homework, exam help, and to connect with a live, professional tutor! The Math and Stats Learning Centre now provides online tutoring for students enrolled in first-year mathematics and statistics courses at UTSC.

http://ustc.utoronto.ca/mslc/virtual-tutoring

Workshops/Seminars

Many useful workshops and seminars are offered throughout the academic year. The workshops discuss math study skills and the seminars are regarding specific mathematical topics.

For more information about the schedule please check our website: http://ustc.utoronto.ca/mslc/workshops/seminars

Summer Learning Institute for Mathematics

Mathematics Preparedness Course: A non-credit two-week course developed to help incoming students make the transition from high school to university calculus.

http://www.ustc.utoronto.ca/mslc/summer-learning-institute

Statistical Consultation

MSLC provides statistical consultation for faculty and graduate students to facilitate their research endeavors. Please send email to stats-ad@ustc.utoronto.ca to make an appointment.
TA/Graduate Student Support through the CENTRE FOR TEACHING AND LEARNING

The Centre for Teaching and Learning is dedicated to helping all UTSC TAs and graduate students enhance their writing and teaching skills, as well as their professional skills and preparation for the job market. To this end, CTL is working with tri-campus and UTSC partners to provide a range of programming, as discussed below and in our webpages for TAs and graduate students, which include a listing of current events: https://www.utsc.utoronto.ca/ctl/grad-students.

WRITING SUPPORT

UTSC graduate students can get expert one-on-one help with their writing, either in person or through email or Skype: https://www.utsc.utoronto.ca/ctl/graduate-writing-support. CTL also offers all-day writing intensive events, called “Just Write.” These meet-to-write sessions (like writing retreats or “boot camps”) are very popular among graduate students who are working on substantial writing projects; the all-day sessions boost productivity by providing a congenial work environment and peer support—along with coffee, lunch and snacks (always appreciated!). See CTL’s grad student and TA events page for a current listing of “Just Write” days: https://ctl.utsc.utoronto.ca/booking/graduate/.

TEACHING ASSISTANTS’ TRAINING AND WORKSHOPS

CTL partners with UTSC faculty and the tri-campus Teaching Assistants’ Training Program (TATP) to offer mandatory TA training sessions (TA Training Days), as well as additional workshops that provide opportunities for more in-depth development of teaching skills. These optional workshops, often offered by UTSC faculty, are eligible for credit in the TATP certificate programs. See https://www.utsc.utoronto.ca/ctl/ta-support for more information and a listing of upcoming events.

GRADUATE PROFESSIONAL SKILLS WORKSHOPS

The tri-campus Graduate Professional Skills program (GPS) helps prepare graduate students for success in their future careers. Collaborating with UTSC’s Vice-Dean Graduate, along with faculty and other GPS partners, CTL offers a yearly GPS series and several day-long events, such as Graduate Professional Day, to provide workshops on topics such as grant writing, types of research communication (posters, articles), statistical and data management software, and personal effectiveness topics (leadership, negotiation). Find more information at https://www.utsc.utoronto.ca/ctl/grad-students.

For more information, contact Sheryl Stevenson, Coordinator of TA and Graduate Student Support, Centre for Teaching and Learning (sstevenson@utsc.utoronto.ca).
Your Lectures Online

WebOption offers services to video-record course lectures and make them available to students as Internet video within 24 hours of the live lecture. Students can access the online video by logging into the WebOption Lecturecasting website using their UTSC ID orUTOR ID and password. When students login, only recorded lectures from the courses they are enrolled in will appear. Students can attend in-class lectures or they can watch lectures from any internet-connected computer.

The WebOption service provides students with flexibility, accessibility, and diversity in their pursuit of academic excellence. We understand that learning styles vary from student to student and WebOption provides them with resources to accommodate their individual needs.

Which Courses Have WebOption?

The list of courses changes every semester; please visit our website to view the latest list. Before a new semester starts, an email notice to all faculty is sent out inviting them to enroll their course in WebOption. In LEC01 - LEC30 sections, students can attend the live lecture and view the online recording. In LEC60 sections students only view the online lectures. LEC60 designated courses are handled by your Department Administrator and the Registrar’s Office.

For more information about our service please visit our website at: weboption.utsc.utoronto.ca
Or feel free to contact the WebOption Lecturecasting Coordinator, Mark McKee at: mmckee@utsc.utoronto.ca
**Key Features**

**Lectures with Slides**

Instructors may choose to include the lecture slides with the recorded videos. After each recorded lecture, simply send the slide deck to us. Then students have all of the material in one place.

**Play, Pause, Rewind**

The built-in controls in the video player allows students to pause the video while taking notes. They can also rewind the video to replay sections as many times as they like. Volume controls and a full screen button are also found here.

**Bookmarks**

Students can use this feature to create links to exact locations in the video.

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**Mobile WebOption**

It's a mobile world and your students are on the move. Our new mobile WebOption Service allows students to access their WebOption lectures on their mobile device.

Due to the number of devices, operating systems and video standards which exist, we currently only support iOS and Android. (Blackberry support is not currently available.)

**We Make It Easy...**

When you arrive at your classroom one of our friendly WebOption videographers will hand you a lapel microphone and then set up the recording equipment in an unobtrusive location in the lecture theatre. When you see the “thumbs up”, that means everything is ready to go; lecture as you normally would. That's all there is to it, we take care of the rest and within 24 hours your students will be watching their lectures online.
Strategies for Instructors for Laptops in the Classroom

Laptops and other mobile devices can be used to support education; they also have the potential to distract students and hinder learning. Here are some ideas and strategies to consider. As you do, remember our students are adults and we want them to take ownership of their learning.

I. Think about the duty to accommodate; laptop use is frequently part of an accommodation. The Policy and Guidelines on Disability and the Duty to Accommodate (Ontario Human Rights Commission) states that individuals with a disability have the right to the accommodation needed to promote their complete participation (4.3.) – which may be a laptop. Moreover, the Policy also states that individuals requiring an accommodation have the right to confidentiality (4.3.) As well, for volunteer note takers in any mid- or large-size class it is best practice to call proactively for volunteers on the first day of class. These note takers will typically create the notes on their laptops as the text can be easily converted to match the accommodation requirements.

If you create a laptop rule in your course syllabus, it must make provision for the ability and confidentiality of those whose accommodation includes the use of a laptop. It also must provide for volunteer note takers to take notes on a laptop. (see below Item II-7).

Example syllabus statement: Classroom rule for the use of laptops and other mobile devices – Please stay on task if you choose to use laptops or other mobile devices during class. These tools can be useful to take notes, refer to class readings, or look up important course concepts. However, checking social media, texting or other non-course specific activity distracts from your learning and can ultimately result in receiving a lower grade in this course.

II. When you structure your class time and create guidelines on behavioural expectations, consider the following strategies:

(1) Think carefully about how learning will occur in your course and how technology does or does not enhance learning within that framework.

(2) How are learning opportunities structured in your course? Regardless of technology's role in your course it is worth talking to students about how the course activities are structured to enhance their learning. This will put discussions regarding behavioural expectations (technology related and otherwise) in the context of both each student’s and their peer’s learning.

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(3) Discuss the educational research (see below) as it relates to learning, and 
your classroom expectations for technology usage and student 
engagement. Be sure your rule is consistent with the research you discuss. 
Provide students with the references and consider having your liaison 
librarian add the references to your course site.

(4) Inform your students that you expect them to stay ‘on task’/engaged 
during class time. Explain that while you acknowledge that laptops and 
mobile technologies have many benefits, they can also be distracting and 
take away from effective learning.

(5) Talk to students about how using technology for non-course related 
purposes, like checking Facebook or texting, can negatively impact their 
own learning and success in the course. Consider sharing one or more 
articles on this topic with your class.

(6) Explain to your class how using technology may even negatively affect 
classmates, as the sound of typing and visuals on screens can be very 
distracting. Considering sharing the articles listed below on this topic 
with your class.

(7) Consider setting up a lap-top free zone in your classroom. This will allow 
choice (an important motivational factor in learning), but minimize the 
distraction of laptops for other students; two possibilities are either 
students on the edges use laptops or left /right separations.

III. Research on Learning and Implementing a Plan for Laptops and Other 
Mobile Devices.

(1) Effects on individual learning:

http://simplelink.library.utoronto.ca/url.cfm/516432

multitasking with laptops during the lecture. Journal of Information Systems 
education, 21(2), 241. 
http://simplelink.library.utoronto.ca/url.cfm/512296

use in the classroom is negatively related to classroom learning regardless 
http://simplelink.library.utoronto.ca/url.cfm/516435

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(2) Effects on classmates’ learning:

[http://simplelink.library.utoronto.ca/url.cfm/516438](http://simplelink.library.utoronto.ca/url.cfm/516438)

(3) Effects of Using Laptop Zones:

[https://escholarship.org/uc/item/5r163125](https://escholarship.org/uc/item/5r163125)

[http://scholar.valpo.edu/cgi/viewcontent.cgi?article=1116&context=vulr](http://scholar.valpo.edu/cgi/viewcontent.cgi?article=1116&context=vulr)

**IV. Some Courses Rely on Technology.** If you’re interested in discussing strategies for integrating laptops or other mobile technologies into your class for activity learning, please contact Educational Technology (Centre for Teaching and Learning): [www.utsc.utoronto.ca/technology/](http://www.utsc.utoronto.ca/technology/)
A commitment to excellence in teaching and research is the core of our mission as a University. Effective teaching strives to provide to students not only knowledge of facts but, more importantly, the skills to analyze, to critically assess, to understand in context, to present arguments in a clear and compelling fashion, to solve problems, to generate new knowledge, and to pursue learning as a life-long endeavour.

The evaluation of teaching is relevant to decisions on tenure, promotion to Professor and promotion to Senior Lecturer. The policies and guidelines for tenure and promotions prescribe in detail the standards and procedures to be followed and the documentation to be collected. The following guidelines for the assessment of effectiveness of teaching describe how teaching effectiveness is to be evaluated at the University of Toronto Scarborough and what documentation should be collected to support that assessment.

CRITERIA FOR ASSESSMENT OF TEACHING EFFECTIVENESS

A faculty member demonstrates capabilities as a teacher in lectures, seminars, laboratories, and tutorials; in less formal teaching situations, including directing the research of undergraduate and graduate students and advising students; and through involvement in curriculum development.

A. Competence in Teaching

To establish competence in teaching for the purpose of achieving tenure or promotion, a faculty member must demonstrate that he or she:

1. stimulates and challenges students, and promotes their intellectual and scholarly or creative development;
2. communicates effectively;
3. develops students’ mastery of a subject, including the latest developments in the subject area of instruction;
4. develops students’ sense of inquiry and understanding of a subject;
5. creates opportunities that involve students in the research process;
6. creates and maintains supervisory conditions conducive to a student’s research, intellectual growth, and academic progress. For teaching-stream faculty, this would normally apply to those whose teaching assignments include courses that enable such opportunities.

1 See the Policy and Procedures on Academic Appointments: http://www.governingcouncil.utoronto.ca/policies/phocst302003i.htm
2 See the Provostial Academic Administrative Procedures Manual: http://aapm.utoronto.ca/academic-administrative-procedures-manual
3 For teaching-stream faculty, this would normally apply to those whose teaching assignments include courses that enable such opportunities.
4 Ibid.

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stream must ensure their practices in this regard are consistent with the School of Graduate Studies Guidelines for Graduate Supervision;

7. deals with students fairly and ethically, taking care to make himself or herself accessible to students for academic consultation, to inform students adequately regarding course formats, assignments, and methods of evaluation, to maintain teaching schedules in all but exceptional circumstances, to inform students adequately of any necessary cancellation and rescheduling of instructions and to comply with established procedures and deadlines for determining, reporting and reviewing the grades of his or her students; 5

8. promotes academic integrity;

9. implements fair and transparent grading practices, with a clear connection between course learning objectives, assignments and assessments.

B. Excellence in Teaching

To meet the standard of excellence in teaching for tenure, promotion to professor, or promotion to Senior Lecturer, the candidate must demonstrate a high level of achievement in all of the criteria for competence listed above, and further demonstrate additional attributes of an excellent teacher, including:

1. superlative teaching skills, that signal a critically reflective, teaching practice;
2. regular engagement in professional development that supports teaching, keeping abreast of advances in both the subjects of instruction and pedagogy;
3. creative educational leadership in one or more of the following ways:
   a. successful innovations in the teaching domain; for example, the creation of novel or progressive teaching processes, materials, forms of evaluation, and pedagogical changes in the discipline
   b. significant contribution to the technological enrichment of teaching in a given area, for example, through the development of effective, new technology or the use of new media to fullest advantage
   c. publication of textbooks or online tools and resources adapted for use by others in their courses
   d. engagement in activities such as mentoring, and presenting seminars or workshops on pedagogical practice that have demonstrable impact on others’ teaching
   e. development of significant new courses or reform of curricula
   f. development of effective and creative ways to promote students’ involvement in the research process and to provide opportunities for them to learn, for example, through discovery-based or other appropriate methods.

As stated in Section 7 of the Policy and Procedures Governing Promotion, excellent teaching alone “sustained over many years, could in itself justify eventual promotion to the rank of Professor”. For such cases, the candidate must have consistently met the standard of excellence as set out above over a period of at least ten years.

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5 Section 2(a) of Article 5 of the Memorandum of Agreement between the University of Toronto and the University of Toronto Faculty Association
6 See Http://www.governingcouncil.utoronto.ca/policies/promote.htm

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ELEMENTS OF THE ASSESSMENT OF TEACHING EFFECTIVENESS

1. MATERIAL INCLUDED IN TEACHING DOSSIERS

The Teaching Dossier typically consists of a Curriculum Vitae (Item A), a Teaching Portfolio (Item B), Course Evaluations (Item C) and other materials gathered by the faculty member's department or academic unit (Item D).

A. Curriculum Vitae (to be provided by the candidate)

The faculty member must provide a curriculum vitae in a standard format which, for the purposes of assessing teaching effectiveness, must include: in the case of tenure or promotion to Senior Lecturer, all courses taught; and in the case of promotion to Professor, all courses taught in the last five years. For tenure and promotion to Professor (i.e., for candidates in the tenure stream), the curriculum vitae must include a complete list of graduate students for whom the candidate has been the principal supervisor at both the masters and doctoral levels, as well as all other graduate students for whom the candidate has provided either co- or secondary supervision.

B. The Teaching Portfolio (to be provided by the candidate)

Each faculty member should maintain a Teaching Portfolio that is updated annually. The general advice that should be given to all faculty is to add to the Teaching Portfolio any document that reflects progress, success, experimentation and innovation (such as course syllabi, sample tests, and classroom activities). Faculty are also advised to solicit feedback from colleagues, the department chair, and UTSC's Centre for Teaching and Learning (CTL), as appropriate, on the development of their Teaching Portfolio. Support for Teaching Portfolio development is also available through the tri-campus Centre for Teaching Support and Innovation (CTSI).

The Teaching Portfolio should include all of the items below that are relevant to the applicant’s circumstances:

1. A statement of teaching philosophy, teaching goals, and plans for ongoing development of teaching expertise;

2. Representative course outlines, bibliographies and assignments, description of internship programs, field experiences, teaching assessment activities, and evidence of student learning;

3. New course proposals;

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7 In some cases this can include courses taught at other universities in the recent past.
8 Information on assembling a Teaching Portfolio can be found at http://www.teaching.utoronto.ca/topics/documenting-teaching/teaching-dossier.htm
4. Commentary on the official student evaluations, or other student feedback solicited by the applicant;

5. For tenure or promotion to Professor, evidence that will enable the committee to assess the candidate’s success in graduate supervision, including:
   - number of students being supervised
   - quality of graduate students’ research
   - quality of theses produced, where possible
   - number of students graduated
   - information on other efforts to foster scholarly, creative and professional advancement of graduate students. This could include copies of students’ papers, especially those that have been published

6. Applications for instructional development grants or similar documents;

7. Documentation on efforts made (through both formal and informal means) to improve teaching skills or course design and commentary on the outcomes of these efforts;

8. Awards or nominations for awards for teaching excellence;

9. Documentation concerning innovations in teaching methods and contributions to curricular development, and the use and development of technology in the teaching process;

10. Examples of efforts to mentor colleagues in the development of teaching skills and in pedagogical design;

11. Evidence of professional contributions in the general area of teaching, such as presentations at workshops, pedagogical conferences, discipline based conferences on teaching or publications on teaching;

12. Service to professional bodies or community organizations through teaching activities at a level comparable to university instruction.

Note: This list is not intended to be exhaustive; other types of evidence of teaching skill may be required by the relevant discipline or added by the candidate.

C. Student Course Evaluations (to be collected and tabulated by the candidate’s academic unit)

1. The candidate’s course evaluation results.

2. A comprehensive summary of all of the candidate’s course evaluations and an analysis that helps put into context the candidate’s course evaluation results.

3. Where a faculty member has taught in another unit at the University of Toronto, the Chair should obtain course evaluations from that unit and include them in the candidate’s
teaching dossier. Where a candidate has taught at another university within the last five years, course evaluation information from that institution should be obtained, if possible.

4. In cases of promotion to Professor, copies of teaching evaluations for at least the most recent five-year period should be provided.

D. Other Material Solicited/Provided Candidates Academic Unit

The following material must be included in the Teaching Dossier whenever possible:

1. Letters from current and former undergraduate students commenting on the candidate’s success in:
   • stimulating and challenging students and promoting their intellectual and scholarly development;
   • developing students’ mastery of a subject and of the latest developments in the field;
   • encouraging students’ sense of inquiry and understanding of a subject through discovery-based learning or other appropriate methods;
   • creating opportunities, where appropriate, which involve students in the research process;
   • creating a lasting impact on students’ appreciation of the subject or on their career path.

In addition, students should be asked to comment on the candidate’s communication skills, active engagement with student’s learning progress and accessibility to students.

Normally, a random sample of approximately 100 undergraduate students should be solicited for opinions, and responses should be sent directly to the Chair. Students may be contacted by letter or email, provided the process is random and attempts are made to contact students from all courses taught by the candidate. (The Registrar’s Office provides student addresses for this purpose.)

2. For tenure and promotion to Professor, letters from former and current graduate students commenting on:
   • the opportunities created by the applicant to involve students in research;
   • whether the supervisory conditions fostered by the applicant were conducive to a student’s research, intellectual growth and academic progress consistent with the School of Graduate Studies’ Guidelines for Graduate Supervision;
   • the quality of supervision provided by the applicant.

3. Letters from Teaching Assistants commenting on the candidate’s management, organization and communications skills. In soliciting these opinions, it is advisable to make clear that responses are voluntary and that they will be held in strict confidence.

4. Letters from peers who are in a position to comment on the candidate’s teaching. Where cross-appointment is involved, letters from peers in other departments and divisions may be solicited. Where the candidate has participated in shared courses, letters attesting to the
teaching competence of the candidate should be obtained from colleagues who co-taught those courses.

5. Course enrolment data, including evidence of demand for elective/senior courses, attrition rates and grade distributions.

6. Where the amount of teaching the candidate has done at either the undergraduate or graduate level varies from the norms of the department, the extent of the difference and the reasons for it should be explained by the head or other suitable representative of the candidate’s unit.

7. Teaching observation report(s) prepared by one or more colleagues, based on in-class visit(s). Classroom visits must be arranged with the consent of the candidate. If the candidate refuses, this should be noted in the Chair’s Report. It is expected that at least one class observation be done within 12 months of the tenure or promotion meeting, and it is advisable that reports by at least two different individuals be prepared. Some units may elect to adopt guidelines encouraging additional earlier visits.

8. For candidates being considered for promotion to Professor on the basis of excellent teaching alone, the following additional material is required:
   a. copies of teaching evaluations for the candidate’s entire career at the University;
   b. comments from a random sample of no fewer than 200 present and former students [graduate and undergraduate], distributed across the candidate’s normal pattern of teaching;
   c. letters from former students who are scholars or high-level practitioners in the field; those solicited should not be current or recent colleagues of the candidate. Individuals should be asked to comment on how the candidate’s teaching influenced their careers and their intellectual, scholarly or creative development.

2. EVALUATION OF THE TEACHING DOSSIER

1. For tenure and for promotion to Professor, the evaluation of the teaching dossier must be done in accordance with procedures laid out in the relevant sections of the Academic Administrator’s Procedures Manual.8

2. For promotion to Senior Lecturer, written evaluations of the teaching dossier from at least four qualified referees who are at arms-length from the candidate are required. None of these reviewers may be from the candidate’s department; at least two of them must be academics from outside the University of Toronto and at least one must be from another department/unit at the University of Toronto. The referees should be asked to provide a critical assessment of all the Teaching Dossier material described in items A-C above, and to explicitly address whether and how the candidate meets the standard of teaching excellence laid out in these Guidelines.

8 See http://aapm.utoronto.ca/academic-administrative-procedures-manual

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The Chair will ask the candidate to submit a list of several potential referees (ideally from both within and outside the University of Toronto) who are qualified to evaluate the candidate’s Teaching Dossier and are at arms-length from the candidate. The referees must include at least one suggested by the candidate, and at least one not suggested by the candidate.

At the Chair’s discretion, a Teaching Evaluation Committee may also be struck to assist the Promotion Committee.10 The Teaching Evaluation Committee consists of at least two faculty members who are not on the Promotion Committee, and must produce a single report commenting on the Teaching Dossier, and whether and how the candidate meets the standard of teaching excellence laid out in these Guidelines. The Teaching Evaluation Committee, if one is struck, should be provided only the Teaching Dossier, and not the referees’ reports.

10 Unlike the case of tenure and promotion to full professor where the committee in charge must evaluate both teaching and research, and therefore seeks the assistance of two separate committees each providing an assessment of one of these components, for promotion to senior lecturer only teaching is assessed. Thus, it is left to the Chair’s discretion to determine whether a separate teaching committee is required.