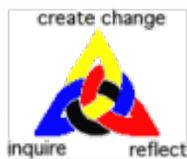


Graduate Program in
Critical and Creative Thinking
including the Science in a Changing World track

Student Handbook

Version: December 2017



Regular CCT Track



Science in a Changing World Track



Critical and Creative Thinking Program
College of Advancing and Professional Studies
University of Massachusetts Boston
(617) 287-7636
100 Morrissey Blvd.
Boston, MA 02125-3393
<http://www.cct.umb.edu/>
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Contents

Section 1: About CCT	5
Contact Information and Office Directions	5
Welcome to Critical and Creative Thinking, including the Science in a Changing World track	6
Degrees and Tracks	7
Program Requirements	10
Course Completion	10
Reflective Practice Portfolio	10
Mid-Program Check-in	11
Capstone Synthesis	11
Exit Self-Assessment	11
Additional Requirements and Expectations of Students	11
Our Academic Location: the College of Advancing and Professional Studies	13
Academic Policies and Procedures	13
Transfer credits	14
Pre-matriculation credits:	14
Full-time Status	14
Course Enrollment Changes	15
Continuous Enrollment and Readmission	15
Student Conduct and Academic Honesty	15
Other Resources and Support for Students	15
CCT Monthly Newsletter	15
CCT Writing Workshop	15
Graduate Student Assembly (GSA)	16
Healey Library	16
IT Training	16
IT Services	16
Disability Services	16
International Students	16
Graduate Writing Center/Academic Support	17
Health Services	17
Social and Traditional Media at UMB	17
Public Safety	17
One Stop	17
Quinn Graphics and Copy Services	17
Bookstore	17
Section 2: Applying and Admissions	18
Before You Apply	18
Application Procedures	18
Additional Notes for Out-of-State Applicants	19
Additional Notes for International Applicants	19
Costs	19
Financial Aid	19
CCT Graduate Assistantships	20
Section 3: Getting Started - Newly Admitted Students	21
Accepting Admission	21
Checklist of First Steps for Newly Matriculated Students	21
Online Communication Notes	21

Entrance Interview	21
Student Advising	22
Guidelines to Help Faculty Serve Students	22
Section 4: Moving Through the Program	23
Registering for Courses	23
Mid-program/End-of-Semester Check-in.....	23
Pre-capstone Courses.....	23
Grading and Incomplete Grades	24
Section 5: The Capstone Synthesis.....	25
Capstone Synthesis Course and General Requirements.....	25
Assessment of Capstone Synthesis	25
Notes on Preparation for Synthesis Project.....	26
Notes on Completing the Capstone Synthesis	27
Section 6: Graduating.....	28
Section 7: Beyond CCT: Opportunities and Resources for Graduates and the Wider Community	29
Publicity.....	29
CCT Community Open Houses	29
Social Media Communities.....	29
Collaborative Explorations	30
Appendix A: Research and Study Competencies	31
Appendix B: Capstone Options	33
Appendix C: CCT Faculty and Staff	34
Appendix D: Courses and Descriptions	35

Section 1: About CCT

Contact Information and Office Location

The Graduate Program in Critical and Creative Thinking is part of the College of Advancing and Professional Studies (formerly University College).

Mail:
Graduate Program in Critical and Creative Thinking
College of Advancing and Professional Studies
University of Massachusetts Boston
100 Morrissey Blvd.
Boston, MA 02125-3393

Web: <http://www.cct.umb.edu/>
Wiki: <http://cct.wikispaces.umb.edu/>
Email newsletter signup: <http://eepurl.com/w1Ayn>

CCT Program Office:
(617) 287-7636
Wheatley Hall, 4th Floor
Room W-04-170
Parking: Campus lots, or Bayside Lot (free shuttle to the Campus Center)
Subway: MBTA red line to JFK/UMass stop, then take free shuttle to the Campus Center

Campus map: https://www.umb.edu/the_university/getting_here/parking/map

Welcome to Critical and Creative Thinking, including the Science in a Changing World track

Welcome to the Critical and Creative Thinking Program, a unique and innovative inter-disciplinary graduate program offered only at UMass Boston [see overview of the program]. The CCT Handbook provides a step-by-step guide to joining and moving through the Program. The most current information about CCT activities and updates on future semesters' courses can be accessed via the CCT website (www.cct.umb.edu) and wiki (cct.wikispaces.umb.edu), which has links to a calendar, course descriptions, regular news bulletins. Prospective students and others interested in CCT are encouraged to use the form at <http://bit.ly/CCTSICW> to contact the Program office to get added to the email distribution list. Please keep us informed of any changes in your email address.

As an interdisciplinary, cross-college program CCT has to be critical and creative in the way it secures its resources and uses them, especially in times of state budgets cuts and shifting institutional priorities. For several years we have worked to build more "horizontal" exchanges and support among students and "vertical" exchanges between students and the larger community of CCT alums and associates. These have coalesced into monthly events of the CCT network. Members of the CCT and SICW communities also participate in online social networks at <http://cct.wikispaces.com> and <http://sicw.wikispaces.com>. Through these, you can extend your learning beyond the formal classes by hearing about the range of ways alums, faculty, and students put critical and creative thinking into practice and reflect on how their current work builds on their CCT experiences. Every CCT Network event has time for socializing, but there are also occasional social gatherings organized by the graduate students' group, the CCT Forum.

Each matriculated student has the CCT Program Director as their general CCT advisor, but should feel free to ask other faculty members for advice. We want the time students spend consulting with faculty to focus as much as possible on issues of personal, professional, and intellectual development, so we have designed this handbook to enable students to handle most bureaucratic matters on their own.

We would also value help getting CCT's websites (<http://www.cct.umb.edu> and also SICW website <http://www.cct.umb.edu/sicw>) linked in appropriate places and any good old word of mouth about CCT would be appreciated. To reach our target of new students each year, we need to reach out and find people who might not know we exist but are thrilled when they find us.

Finally, we view the CCT program as a work-in-progress, which means that we encourage members of the CCT community to find opportunities to affirm what is working well and to suggest directions for further development. It helps our spirits to know that others are thinking about how the Program can move ahead.

Sincerely,

Peter Taylor, Graduate Program Director

Degrees and Tracks

Degrees offered: Master of Arts
Graduate Certificate

Students may be admitted for a Master of Arts or Graduate Certificate in Critical and Creative Thinking. Current Certificate students who wish to continue to the M.A. program may apply by submitting a new full application (Graduate Admissions will not require transcripts to be resubmitted for the MA if already submitted for the Certificate application, although you will need to submit a new personal statement and letters of reference, as well as submit the application form and application fee).

Tracks: Regular Critical and Creative Thinking Track
(Option of regular or Liberal and Interdisciplinary Studies concentration)
Science in a Changing World Track (SICW)

All MA students take 33 credits (11 courses):

- 4 required foundation courses
- 4 electives
- 3 required research and writing courses

All Graduate Certificate students take 15 credits (5 courses):

- 2 required foundation courses
- 3 electives

The track chosen determines which foundation courses will be taken by students, and elective and final research and writing courses further enhance the student's experience toward their area of focus within a track. Within the regular Critical and Creative Thinking track, students have a further option of choosing a concentration of **Liberal and Interdisciplinary Studies (LAIS)**, which provides alternative options for the four required foundation courses that students will take. This track allows students to develop, in the liberal arts tradition, their general knowledge and critical intellectual abilities. The concentration in Liberal & Interdisciplinary Studies has the same structure as the regular CCT track except for the substitution of foundation courses that make interdisciplinary connections from each of the following four areas. See **Appendix D** for full descriptions of courses allowed in each track and all elective courses.

The entire program can be completed at a distance. Many courses are available as synchronous online sections – some students attend class on campus by registering for a face-to-face section. Distance students then register for the corresponding online section and attend class meetings through video web conference at the regular meeting, participating live in all activities and discussions with those attending face-to-face. A few electives are only offered fully online, and so face-to-face students

The CCT program is located in the College of Advancing and Professional Studies. Many administrative details about registration, costs, and college policies can be found here:

<https://www.umb.edu/academics/caps/moreinfo>.

MASTER OF ARTS (11 courses)		
Regular Critical and Creative Thinking Track		Science in a Changing World Track
Course Requirements	Course requirements if taking option for Liberal and Interdisciplinary Studies concentration	Course Requirements:
<p><i>Foundation Courses:</i></p> <ol style="list-style-type: none"> 1) CRCRTH 601 Critical Thinking 2) CRCRTH 602 Creative Thinking 3) CRCRTH 603¹ Foundations of Philosophical Thought 4) CRCRTH 651² Advanced Cognitive Psychology 	<p><i>Foundation Courses:</i></p> <ol style="list-style-type: none"> 1) CRCRTH 603 Foundations of Philosophical Thought (Arts and Humanities focus) 2) CRCRTH 649 Scientific and Political Change OR CRCRTH 651 Advanced Cognitive Psychology (Social and Behavioral Sciences focus) 3) CRCRTH 640 Environment, Science and Society: Critical Thinking OR CRCRTH 645 Biology in Society: Critical Thinking OR CRCRTH 650 Mathematical Thinking OR CRCRTH 652 Children and Science (Natural Sciences focus) 4) CRCRTH 601 Critical Thinking OR CRCRTH 602 Creative Thinking OR CRCRTH 655 Metacognition (Educational Studies focus) 	<p><i>Foundation Courses:</i></p> <ol style="list-style-type: none"> 1) CrCrTh640 Environment, Science and Society: Critical Thinking OR CrCrTh645L Biology in Society: Critical Thinking 2) CrCrTh649L Scientific and Political Change 3) CrCrTh650 Mathematical Thinking 4) CrCrTh652 Children And Science
<p><i>Electives:</i></p> <p>Any four courses from the program. Courses from other programs may be used subject to advisor permission.</p>	<p><i>Electives:</i></p> <p>Any four courses from the program. Courses from other programs may be used subject to advisor permission.</p>	<p><i>Electives:</i></p> <p>Any four courses from the program. Courses from other programs may be used subject to advisor permission.</p>
<p><i>Research and Writing:</i></p> <ol style="list-style-type: none"> 1) CRCRTH 692³ Processes of Research and Engagement 2) CRCRTH 693 Action Research for Educational, Professional, and Personal Change 3) CRCRTH 694 Synthesis of Theory and Practice 	<p><i>Research and Writing:</i></p> <ol style="list-style-type: none"> 1) CRCRTH 692 Processes of Research and Engagement 2) CRCRTH 693 Action Research for Educational, Professional, and Personal Change 3) CRCRTH 694 Synthesis of Theory and Practice 	<p><i>Research and Writing:</i></p> <ol style="list-style-type: none"> 1) CRCRTH 692 Processes of Research and Engagement 2) CRCRTH 693 Action Research for Educational, Professional, and Personal Change 3) CRCRTH 694 Synthesis of Theory and Practice

GRADUATE CERTIFICATE (5 courses)	
Regular Critical and Creative Thinking Track	Science in a Changing World Track
Course Requirements	Course Requirements:
<i>Foundation Courses:</i>	<i>Foundation Courses:</i>
1) CRCRTH 601 Critical Thinking 2) CRCRTH 602 Creative Thinking	<i>Any two from the following:</i> <ul style="list-style-type: none"> • CrCrTh640 Environment, Science and Society: Critical Thinking OR CrCrTh645L Biology in Society: Critical Thinking • CrCrTh649L Scientific and Political Change • CrCrTh650 Mathematical Thinking • CrCrTh652 Children And Science
<i>Electives:</i>	<i>Electives:</i>
Any three courses from the program. Courses from other programs may be used subject to advisor permission.	Any three courses from the program. Courses from other programs may be used subject to advisor permission.

Exceptions and Substitutions for MA, Regular track:

¹CRCRTH 619 Biomedical Ethics may substitute for CRCRTH 603 Foundations of Philosophical Thought

²CRCRTH 655 Metacognition may substitute for CRCRTH 651 Advanced Cognitive Psychology

³CRCRTH 692 Processes of Research and Engagement must be completed before starting CRCRTH 694 Synthesis of Theory and Practice (any other courses may be taken at the same time as 694). Also, CRCRTH 692 may be taken twice. The first completion counts for the requirement, and the second counts as an elective.

Other: CRCRTH 688 Reflective Practice includes options for a 1, 2, or 3-credit course. It may be taken multiple times up to a total of 6 credits.

Course formats: Face-to-face
 Online
 Hybrid

CCT courses are offered in one or more of these formats, although every course is not offered every semester. Hybrid courses are courses that are held in a face-to-face classroom with the option of conferencing in from a distance at the scheduled time of the class session each week (usually through Skype, Google Hangout, or some other similar system). Students enrolled in a hybrid course are expected to attend every session and participate for the entire session, so it is important to be able to commit to the weekly meeting time and use an environment that allows one to participate without distraction. Online courses are not self-paced but instead involve instructor-led discussions and activities structured around a weekly schedule in most cases.

Program Requirements

Students must complete all of the following items to be awarded the degree or certificate:

	M.A.	Graduate Certificate
Courses completed	11 courses (or 33 credits) = 4 required foundation courses, 4 electives, and 3 required research and engagement courses	5 courses (or 15 credits) = 2 required foundation courses and 3 electives
Reflective Practice Portfolio	✓	
Mid-Program Check-in	✓	
Capstone Synthesis	✓	
Capstone Synthesis Presentation / Performance	✓	
Exit Performance		✓
Exit Self-Assessment	✓	

Course Completion

Most CCT courses are for 3 credits, although some courses (with a reduced load of work) may be offered for fewer credits. Courses are graded by with standard letters, with a lowest possible grade of C. Coursework that does not reach the minimum qualifications for a C will be given an F. An average grade of B (Grade Point Average = 3.0) or above is required for graduation.

Reflective Practice Portfolio

The Reflective Practice Portfolio is an electronic portfolio of academic work completed over the course of the program. The two main components of the portfolio are the exhibits and the narrative. The exhibits are representative assignments of parts of assignments from all courses taken in the program, and the narrative is a written work that conveys a reflection of one's development of the exhibits over the long term of the program. The Reflective Practice Portfolio exists outside of any specific course; effort needs to be made independently and throughout a student's CCT career to select the exhibits from one's coursework and write the narrative pieces.

For more information, explanation of the rationale, and examples of Reflective Practice Portfolios, please see the program wiki:

<http://cctrpp.wikispaces.umb.edu/>

Mid-Program Check-in

A brief interview with the Graduate Program Director and another faculty member is held at the mid-point of one's progress through the M.A. program. This is explained further in the later section titled, "Moving Through the Program".

Capstone Synthesis

The capstone project (for the MA in both the regular CCT and Science in a Changing World tracks) is a synthesis of one's insight, learning, and preparedness for change and ongoing development as a result of the program. This project is completed through participation in the CRCRTH 694 Synthesis of Theory and Practice seminar, which is taken at the end of the program (typically, this course is taken last, although some courses, such as late electives, may be taken simultaneously). Review the section below about the "Capstone Synthesis".

Exit Self-Assessment

A written self-assessment is completed by each student, typically in conjunction with the end of the CRCRTH 694 Synthesis course. This assessment asks students to document the broad impact of the program on their personal, professional, and educational development by identifying areas of achievement and challenges in relation to two sets of goals: 1) completion of the synthesis project itself, and 2) developing as a "reflective practitioner". Students may wish to review these goals periodically throughout the program as a prompt in thinking about how to approach upcoming courses as well as reflect upon recent ones. The exit self-assessment goals also provide some framework for thinking about how to write the narrative parts of the Reflective Practice Portfolio.

Additional Requirements and Expectations of Students

In addition to the coursework, check-ins, and portfolio requirements, students are requested to address the following on a regular basis:

- Students taking courses in the hybrid/synchronous online format will have registered for either an online section or a face-to-face section. Students are generally expected to attend the course consistent with how they registered. If you are registered for the face-to-face section, you must attend the class meetings in person, except with prior notice and permission from the instructor to be able to attend the session at a distance through web conference in a given week. Otherwise, it is not permissible for face-to-face students to join the web conference simply because of a preference to avoid coming to campus that week; doing so may be counted as non-attendance for that class meeting. Having said so, instructors may develop an individual policy that overrides this default policy and allows for greater flexibility, so it is important to be aware of the case for each course. Likewise, students who normally participate online but wish to attend a particular class meeting in person must contact the instructor to make arrangements ahead of time so that the instructor can plan properly.
- Generally, students in the MA program automatically have a CCT Graduate Certificate added to their student plan. This works because the certificate courses are always a subset of those in the MA, and it

guarantees that a student will receive an official graduate credential as soon as they have completed the certificate courses, even if they need to leave the program before finishing the full MA. When the 5 certificate courses (601, 602, and three electives) have been completed, a student may apply for graduation for the Graduate Certificate, and then this gets listed on the official university transcript. Note that commencement fees may be charged at this time (but then they are not charged again once the student has applied for commencement when finishing the MA).

- Students who initially apply to the Graduate Certificate program, finish that program, and want to continue toward the full MA must submit a new, separate application to Graduate Admissions for the MA program. This means that an application fee, application form, and supporting materials must be resubmitted (although previous transcripts already received for the Graduate Certificate application would be reused for the MA application with no need to have them resent). This represents a change in admissions policy (Spring 2016), which previously allows Graduate Certificate candidates to add the MA through a much simpler paperwork and approval step.
- Students are expected to be aware of the academic calendar for the given semester, including course start and end dates, the deadlines for Adding, Changing, Dropping, or Withdrawing from a course, and the class meeting times. Please check with your instructor for clarity around class meetings, as the WISER course catalog does not always accurately list class meeting times.
- Keep the CCT program and the university informed of any changes to your contact information, including email address, residential address, and phone number; confirm that the email address listed for you in WISER is your preferred one, and submit personal information change request to the university when a change is needed. Also, please make sure that you have fulfilled the university's requirement for vaccination (local students) and emergency contact updates; a hold may be placed on your student account if these are not addressed, and registration for courses will be prevented until these issues are cleared.
- Please inform the program of any change in academic plans, especially those that involve changing when you intend to complete required courses, or situations where you may need to spend a semester without taking any courses. We fully understand that although it's clear that students occasionally have life and work issues that can affect your progress through your studies, but dropping out of contact will eventually have financial consequences, usually in the form of late fees or extra expenses. The program faculty and staff may be able to help you avoid or minimize those if possible, if you keep us in the loop.
- The university's Graduate Studies policy requires that all students maintain continuous enrollment. This means that if you decide that you can't take any courses in a given semester, you may remain an active student by paying the Program Fee (currently \$225 per semester). Usually, you do this by "registering" for the Program Fee "course" in WISER. If you don't pay this fee and don't register for at least one regular course for some semester, the university may discontinue your enrollment, requiring you to re-enroll in the program by paying additional administrative and late fees before you can register for courses again. This also applies if you register for one course in a semester but then Drop or Withdraw from the course, leaving you with no registrations left for that semester. At the time when you withdraw from the course, contact the university to pay the Program Fee at the same time.
- Take initiative in addressing any Incomplete grades by finishing missing work as agreed in the completion contracts that you have established with your instructors. After one year, an Incomplete grade becomes an "IF" ("Incomplete-Fail"), which means that the course must be retaken from the

beginning, at full cost to you (which also means that you may have to wait until it is offered again). Please keep on schedule in finishing the work in a timely way, rather than expect instructors to pursue you and make exceptions for continued extensions, etc. In order to issue an Incomplete in the first place, instructors may ask for evidence of documented illness or hardship, and completion contracts need to be established with specific due dates and expectations and then get filed with the program office and with the Registrar's office.

- Actively develop your research and study competencies (see Appendix A). Both face-to-face and online courses are enhanced through a process of continual improvement in these areas. Workshops, university student services offices, and other resources can provide directed assistance in these areas. While most courses do not require students to have any specialized technological expertise, familiarity with computer-based tools is helpful and support your ongoing development as a student and professional.
- Beyond the tools of research and study competencies, developing healthy academic habits are also expected. Consider your progress as a Reflective Practitioner and observe how your own thinking is evolving as you seek to use critical and creative thinking to bring change to your work, schools, organizations, and life. At the end of the MA program, students will be expected to assess their own development in relationship to two sets of goals: 1) "My Synthesis Project Shows That...", and 2) "Developing as a Reflective Practitioner, Including Taking Initiatives in and Through Relationships". For full details please refer to <http://cct.wikispaces.umb.edu/LearningGoals>. Review these goals periodically throughout your study.

Our Academic Location: the College of Advancing and Professional Studies

The Critical and Creative Thinking graduate program is located within the College of Advancing and Professional Studies (CAPS). CAPS was originally named "University College" when it was created out of the Division of Corporate, Continuing and Distance Education (CCDE) in September 2010 and received its current name in early 2013.

Historically, CCDE managed the support of online courses even when these courses had home departments elsewhere, and CAPS continues this support to the extent that this involvement distinguishes it as a college within the university. Although not all CCT course sections are online, students should note that CCT courses generally follow the CAPS academic calendar, which may not correspond precisely to the general university academic calendar that governs all other colleges. Please make sure to notice the course dates that are posted on the CAPS web site and use this site to clarify other differences in fees and policies, and check with individual instructors to confirm course details:

<http://www.umb.edu/academics/caps>

Academic Policies and Procedures

For the complete listing of academic policies related to graduate students, please see the Graduate Studies Catalog:

<http://catalog.umb.edu>

Key policies are summarized below.

Satisfactory Academic Progress is considered to be made when:

- Student has no more than 3 Incomplete grades still outstanding
- Student maintains cumulative Grade Point Average of at least 3.0
- Student is on track to finish the program in under 5 years (this is the formal statute of limitations on program completion)
- Student maintains continuous registration by enrolling in courses or paying the Program Fee every semester; this keeps your student status active and ensures that the university continues to regard you as a current student, for all intents and purposes (such as keeping your student email account available to you, including you in university announcements/communications, and allowing access to other campus services).

Failing to meet these standards creates the possibility that a student may be placed on academic probation, which then may have implications on the student's general progress, financial aid, and finances.

Transfer credits

Students may transfer up to 6 credits to be counted toward their UMass Boston program, as long as a minimum grade of B was achieved in those courses, and as long as those courses have not been used toward another degree. The credits must have been earned no more than seven years earlier than the matriculation date into UMass Boston. Transfer credits can be applied to both the Graduate Certificate and MA programs.

Pre-matriculation credits:

Students may take up to 6 credits of CCT coursework (typically 2 courses) before matriculating. If the student applies to the program (M.A. or Certificate) and is later admitted, these 6 credits will count toward the required coursework in the program. Any credits over 6 will not be automatically transferred onto the student's record toward completion of the degree; if these are taken after you are admitted but before you matriculate, these may be allowed to count by completing a prematriculation waiver form with the approval signature of the Graduate Program Director.

Changing programs

A student wishing to move from a certificate to a degree program must submit a new, full application for the degree program. As of spring 2016, it is no longer permitted for students in the CCT Graduate Certificate program to simply submit a form to add the MA. Instead, the application process must be repeated, although the university will be able to use transcripts that had been received when the student originally applied for the Certificate. Separately, if a student already in the MA program wishes to add a Graduate Certificate, only a brief form is needed, not a full application. This might be appropriate in cases where a student is not able to continue toward the MA but has already achieved the credits necessary for the Certificate by that point.

Full-time Status

A student is considered:
 full-time=9 or more credits per semester; part-time=7 or 8 credits per semester; half-time=6 credits per semester

Students wishing to take more than 12 credits in a semester must get permission from the Graduate Program Director.

Course Enrollment Changes

Students should note the academic calendar for the dates when adding, dropping, changing, and withdrawing from courses is allowed. When a course is dropped within the allowed period, it is removed from the student's registration and will not appear on the student's record. After the drop period ends, the withdraw period allows the student to leave the course without any consequences to the Grade Point Average. The course name *will appear* on the student's transcript but shows a "W" grade and does not factor in to any grade point average calculations or count for any credits. Fees may be refunded, or partially refunded, if leaving a course by the Drop deadline. Fees are *not* refunded, though, if you leave a course after the Drop deadline but before the Withdraw deadline. After the Withdraw deadline passes, it is not permissible to leave the course; you must finish it and receive a grade.

Continuous Enrollment and Readmission

Students maintain continuous enrollment by taking courses or paying the Program Fee each semester. Should neither of these happen by the registration deadline, a student's academic status will become "Discontinued" in WISER. Students will not be able to continue until they complete a readmission process, involving 1) a readmission application to be approved and signed by the Graduate Program Director, and 2) the paying of late fees, readmission fees, and possibly others.

Student Conduct and Academic Honesty

Students are expected to maintain all aspects of the Code of Student Conduct at UMass Boston. These guidelines describe student behavior that is free from plagiarism, dishonesty, fraud, deception, forgery, harassment, violence, and other such qualities. Please see the Code of Student Conduct: <http://catalog.umb.edu/content.php?catoid=14&navoid=1770>

Other Resources and Support for Students

There are several resources available for students seeking support in their academic, professional, and personal development. While the CCT program faculty and staff may be the first point of contact for questions and guidance in your studies, students are encouraged to seek assistance from the dedicated specialists on campus serving several areas. A few are summarized here.

CCT Monthly Newsletter

CCT students are encouraged to read the program's monthly newsletter (<http://cct.wikispaces.umb.edu/News> with reminder sent by email newsletter) for announcements, reminders, and news of interest. All current students should sign up to receive the newsletter here: <http://eepurl.com/w1Ayn>. Prospective students or other interested individuals are welcome to receive it as well.

CCT Writing Workshop

The CCT Writing Workshop is a non-credit weekly writing group for students in any CCT courses who wish to develop their writing in a supportive environment. The workshop schedule varies; it is offered some semesters but not others. It may be combined with the meeting time of one of the final research and writing courses in the program. Check with CCT staff about the schedule for the current semester.

Graduate Student Assembly (GSA)

This organization sponsors events and provides other resources to graduate students, as well as helps to fund student-run clubs. The Critical and Creative Thinking Forum, supported by the GSA, is the student club of the CCT program and open to all current graduate students.

<http://gsaumb.wordpress.com/>

Healey Library

Staff members at the library provide extensive assistance in many areas of research and access to books, journals, and media. Services such as workshops and online guides are offered to students as well. Distance students can also access many library resources, including online help from librarians and a large collection of online research databases that offer many full-text journal articles. On-campus and distance students should request a barcode (see <http://www.umb.edu/library/account/barcode>) to be able to log in to library web sites.

<http://www.umb.edu/library/>

IT Training

Workshops in many areas of technology and campus systems are available free for students. While many of these are held on campus, other resources are available online in the form of tutorials and help guides.

<http://www.umb.edu/it/workshops>

IT Services

The IT Service Desk is the main point of contact for all help with campus technology, including online systems, student accounts/passwords for email/WISER/wikis, and software and hardware. Assistance can be found by contacting the IT Service Desk at ITServiceDesk@umb.edu or 617-287-5220, or by visiting the IT Service Desk on the third floor of the Healey Library.

Main IT web site: <http://www.umb.edu/it/>

Student Email: <http://webmail.umb.edu/>

WISER: <http://wiser.umb.edu/>

CCT Wiki Home Page: <http://cct.wikispaces.umb.edu/>

Disability Services

Disability services at UMass Boston are coordinated through the Ross Center. Staff can assist students with all aspects of access both around campus and in coursework. Students are invited to contact the Ross Center to request accommodations, which may also include working with faculty of courses to accommodate special needs in the access to course materials. Accommodations should be established before the semester begins.

<http://www.umb.edu/academics/vpass/disability/>

International Students

The Office of International and Transnational Affairs offers services to international students who attend UMass Boston on-campus and need assistance with residency paperwork, locating funding, and finding other local resources.

<http://www.umb.edu/academics/oita>

Graduate Writing Center/Academic Support

The Graduate Writing Center, within the department of Academic Support Programs, provides resources to help students developing in their writing and research. Sign up early in the semester.

http://www.umb.edu/academics/graduate/info_for_graduate_students/graduate_student_services

Health Services

The Health Services office on campus assists students with all medical and counseling needs (especially if you purchase the student health plan).

<http://www.umb.edu/healthservices/>

Social and Traditional Media at UMB

Several media channels are available to help the UMass community keep current with university news, opportunities, events, and special announcements.

http://www.umb.edu/news_events_media/

Public Safety

The Department of Public Safety provides all security-related services on campus and includes the campus police. The department also assists with issues such as office or classroom lockout.

Main phone number: (617) 287-7799

http://www.umb.edu/public_safety/

One Stop

All issues related to billing, student accounts, registration, financial aid, and other administrative issues for students may be addressed at the One Stop office for students on campus.

http://www.umb.edu/campus_center/services/one_stop/

Quinn Graphics and Copy Services

Students may access printing services of all types at Quinn Graphics (for a fee). This includes printing and binding of Synthesis or other projects and many other types of general printing and copying. Several public self-serve copy machines (requiring cash or reloadable copy cards) are located throughout the campus in lobby areas or main hallways of several buildings.

http://www.umb.edu/quinn_graphics/

Bookstore

A campus book store is located near the front entrance of the Campus Center for purchases of both textbooks and office supplies. While some CCT courses may stock required textbooks in the Bookstore, most encourage students to seek used or inexpensive copies from online vendors. (The course descriptions which include most key texts used by courses are located at <http://cct.wikispaces.umb.edu/CourseDescriptions.>)

Section 2: Applying and Admissions

Before You Apply

Most Critical and Creative Thinking courses can be taken without joining the program. These might be used for professional development or personal interest. If you are not enrolled in any UMass Boston program at the time, the university recognizes you as a “non-degree” student. If you eventually matriculate into the program (M.A. or Certificate), up to two courses that you have taken as a non-degree student can be transferred in at that time and count toward your graduation credits. Many students make use of this rule to take a course or two before entering the program in order to get to know the program and its faculty and students as well as the university before finalizing their applications.

Application Procedures

The application procedures are determined by Graduate Admissions, and details are described here: <http://www.umb.edu/admissions/grad/apply/>

Generally, the application requirements for the CCT program match those indicated by Graduate Admissions. One exception is that submitting test scores (such as the GRE) are not required for the CCT program.

There are only two formal matriculation periods: spring and fall. This means that you only become a recognized student in the university program upon admission at these points. If you are admitted for the upcoming fall but wish to take a summer course prior to matriculation, this is permitted, but just note that during the summer you would still be a non-degree student from the point of view of the university. The distinction between a matriculated student and a non-degree student makes a difference when it comes to financial aid awards, graduate assistantships, certain fees, and possibly other administrative matters.

As of spring 2016, the Graduate Admissions policy is that applicants will not be required to include transcripts to be submitted from schools where fewer than six credits were earned, and where the coursework taken is clearly not related to their planned course of study at UMass Boston.

The application deadline for fall admission is June 1, and the deadline for spring admission is November 1.

When all of the application materials are received by the Graduate Admissions office, the program faculty committee reviews the materials and makes a decision about admissions. This can be to admit the applicant, deny the admission, or allow a provisional admission. Provisional admission usually requires that a student receives a grade of B or higher in all first-semester courses to remain a matriculated student.

Additional Notes for Out-of-State Applicants

The following policy should be noted by applicants planning to enroll in the online program who reside outside of Massachusetts:

UMass Boston is not currently accepting students for online study who reside in Alabama, Arkansas, Maryland, or Minnesota, due to regulations in those states. Please contact your state's Board of Education for details (see <http://olstateauthorization.wikispaces.umb.edu/>). This regulation is a consequence of laws of individual states and is not a specific policy of the University of Massachusetts.

Additional Notes for International Applicants

International applicants need to fulfill additional requirements to the main requirements for applications. For more information, see:

http://www.umb.edu/admissions/grad/international_ga
for more information about applying and visas.

In particular, note that if your transcript is in a language other than English, each page must be accompanied by an official, certified English translation, validated by an official public translator as a translation of an original official transcript, and arrive at Graduate Admissions in a sealed envelope, that is, unopened by the applicant. This means that there needs to be proof that the translator viewed an official copy of the transcript and that the translation is official as well.

International full-time students must take a minimum of 9 credits (usually 3 courses), and no more than one online course may be taken toward that minimum (if you reach the minimum of 9 credits with one online course, additional courses beyond the 9 credits may be online). For additional information, please see the following page, which explains more about studying on F-1 and J-1 student visas:
http://www.nafsa.org/Find_Resources/Supporting_International_Students_And_Scholars/Network_Resources/International_Student_and_Scholar_Services/Immigration_Basics_FAQ_for_Academic_Advisors_advising_International_Students/

Costs

The costs of a UMass Boston education vary based on circumstances, including residency, length of program, and other factors. Please see the web site of the university Bursar for a breakdown across these factors:
http://www.umb.edu/bursar/tuition_and_fees/

Financial Aid

Please refer to the web site of the Office of Financial Aid for a description of aid possibilities:
http://www.umb.edu/admissions/financial_aid_scholarships/grad_aid

It is usually best to visit with or speak directly with a Financial Aid representative, who will help you to evaluate financial aid opportunities based on your specific circumstances, usually after you complete the FAFSA (federal financial aid application).

CCT Graduate Assistantships

The College of Advancing and Professional Studies occasionally allocates one 1/4th time graduate assistantship to CCT (Assistantships with other departments are posted at <http://www.umb.edu/hr/employment/search.html>.) A 1/4th time assistantship (4.5 hours/week) pays a stipend and carries a tuition waiver. The waiver covers 25% of the other fees. Assistantships, once awarded, are renewable for up to, but not more than, three semesters. To hold an assistantship, a student should be enrolled in at least six credits of graduate work (two or more classes) and must maintain a satisfactory grade point average.

Under the conditions of the Assistantship, the student is responsible for 4.5 hours of work per week from the first week of classes through to the due date for submission of final grades as defined by the academic calendar, unless a different term of employment is identified. No work is expected during spring break and intersessions (see details of contract with graduate student union).

The duties of assistantships range from office support, teaching assistance in the core courses, and research assistance. To apply for an assistantship, complete the application form and send it to the CCT Program Director with a CV or resume indicating your skills, time availability, and the classes you hope to be taking. It is imperative that you get this material in as soon as possible before the semester in which you need the assistantship. April 15 is a safe target date for the next academic year.

The awarding of an assistantship is based on a student's academic achievement and qualifications in relation to the needs of the Program, as well as financial need. If you are awarded an assistantship, the Program Director will informally notify you of the decision and give instructions about paperwork required.

Section 3: Getting Started - Newly Admitted Students

Accepting Admission

Once the admissions decision is finalized and you have been accepted into the program, the Graduate Admissions office will notify you, and you'll be asked to submit the New Student Fee for graduate students. See the Bursar's web site for current amount: http://www.umb.edu/bursar/tuition_and_fees
Submitting this fee confirms that you will join the program and initiates your matriculation.

Checklist of First Steps for Newly Matriculated Students

Once you have confirmed that you are now a matriculated student, complete the following steps:

1. Review the Welcome Letter for new students: <http://cct.wikispaces.umb.edu/NewlyAdmitted>
2. Become familiar with other reference links on the program wiki: <http://cct.wikispaces.umb.edu/>
3. Review the Student Handbook in its entirety (this document).

Online Communication Notes

The CCT program uses Google Hangout, Blackboard Collaborate, Zoom, and/or Skype as (audio/video) conferencing methods for certain online meetings, discussions, and other communications. Note that you may need to establish non-university login accounts and the installation of software on your own computer.

Please contact the program for additional help getting started with these. At a minimum, you'll need a computer with a microphone or headphone-microphone device that you can plug in to your computer, and basic system requirements mentioned on the sites above. It is strongly recommended that for such online events you use a computer with a wired Internet connection, as wireless connections sometimes do not allow a clear and consistent connection.

Entrance Interview

The entrance interview is a way for the Program Director and other faculty to help you get started with your studies and learn about your interests so that you may be advised around course planning and other opportunities. At this time we would encourage you to:

1. Learn about resources available to students, including use of our web sites, program and course wikis, and social media sites that extend interactions beyond the program of studies.
2. Establish and/or confirm your provisional plan for taking courses through completion of the program, including a term-by-term breakdown of courses that you expect to take
3. Start your Reflective Practitioner's Portfolio (<http://cctrpp.wikispaces.umb.edu/-/RPP/{yourlastname}/>) and start to see how you will make connections between ideas and courses throughout your student career
4. Learn about upcoming events, such as the CCT Community Open Houses (designed for current students as well as a way for prospective students to visit the program)
5. Start reviewing research / writing competencies that you will develop throughout the program (Appendix A)
6. Ask any other questions that have not been answered yet for you

Student Advising

A general advisor is assigned to each student upon entering the program. Often, this advisor is the same as the Program Director, unless otherwise specified or unless you have made a special arrangement with another faculty member. Your advisor is available to assist you in adjusting your course plans, registering for courses, and finding the support that you need to succeed in your studies.

Guidelines to Help Faculty Serve Students

1. For advice on your studies, consult this CCT handbook before contacting your advisor. Submit a course plan as soon as you are admitted and use this as a basis for discussions with your advisor.
2. Make explicit written contracts for Incomplete grades, which may be allowed by instructors if you have extenuating circumstances that prevent you from completing a course before grades are due. An Incomplete grade remains on your student record until you complete the work, OR, until one full year passes, at which time the grade becomes an "IF" (Incomplete-Fail; this means that you must register, pay for, and complete a course all over again to get a passing grade). You and the instructor should work out an explicit contract that states clearly what work is to be done, and by what dates, in order for a true grade to replace the Incomplete. The instructor is responsible for submitting the true grade, but it is the student's responsibility to complete the work and confirm with the instructor that the final grade can be submitted.
3. Know the important dates of the academic calendar. Once you have matriculated you should register for the following semester's courses during the official registration period in November/December and April/May. Late fees may be charged to matriculated students who register after the registration deadline (this doesn't apply to new students). Also, each semester, note the deadlines to Add, Drop, Change, and Withdraw from courses.
4. Please inform the Program immediately if your personal contact information changes, including your email address, phone number, or address of residence. Also, please inform the program of any changes to your initial plans around progressing through the program.
5. Before the start of the Synthesis course (CRCRTH 694), make sure that you have finished the Processes of Research & Engagement course (CRCRTH 692) and have gotten a proposal approved, or else postpone taking the Synthesis course for another semester.
6. As a complementary system of support, seek to develop peer and other horizontal relationships (other students, alums) and to give support and advice to them when asked for.

Section 4: Moving Through the Program

Registering for Courses

Registration happens through the WISER online system. A login account is created for each new student (or may have already been created if you took a course as a non-degree student before applying).

WISER web site: <http://wiser.umb.edu/>

When searching for CCT courses in the online catalog, the Course Subject code is CRCRTH. Some courses in the CCT program are cross-listed in other programs as well, so these might be used also (the course Foundations of Philosophical Thought is cross-listed with the Philosophy department and is course PHIL 501. Note that when you register for a course, your student account will reflect the registration, and you will be billed accordingly. Questions about course charges should be directed to the Bursar's Office.

Occasionally, WISER prevents a course registration and displays an error message, which may refer to needing permission to take the course or some discrepancy with a student's program plan. CCT courses usually do not require instructor or program permission, so this should not be a reason to be denied enrollment to a course. If you receive this message, make sure that it is within the registration period for the term that the course is being offered, and also, make sure that there are no "holds" on your student account. A hold on your account prevents registration and can happen for several reasons – an unpaid past due balance on your bill, some critical personal information is missing or out of date in the university records, or other academic situations may need to be addressed. If you are not sure how to resolve the problem, contact the program for help.

Mid-program/End-of-Semester Check-in

After the end of each semester, or at least at the mid-point in your studies, the CCT faculty will meet with you and review your progress in the program. Before this meeting, update your current Reflective Practice/Metacognitive Portfolio, and submit notes on your development of the Research and Study competencies. At the Check-in meeting, the faculty will make recommendations about staying on track (which may include suggesting that you put a hold on taking courses in order to finish Incomplete grades and/or spend a semester improving writing skills and working toward the competencies.

At the mid-program check-in meeting, you may also start to consider early ideas about your approach to the pre-capstone courses and capstone Synthesis.

Pre-capstone Courses

Two courses focus on research and writing and help to prepare you for the capstone experience. These courses are:

CRCRTH 692 Processes of Research and Engagement

CRCRTH 693 Action Research for Educational, Professional, and Personal Change

Processes of Research and Engagement provides an opportunity for students to research, design, and pilot an application of your learning to your own professional or personal needs. This course helps you to develop your research in a way that can lead to many forms, such as a workshop series, a curriculum unit, a creative

product, or a business plan. This course must be completed (you must have a final grade, not just an Incomplete) before you start the capstone synthesis.

Action Research for Educational, Professional, and Personal Change addresses practices of evaluating and facilitating growth in critical and creative thinking in oneself and others. Permission may be granted to take this course at the same time as the Synthesis seminar.

While it is not required that the two pre-capstone courses be taken in the sequence above and immediately before the CRCRTH 694 Synthesis seminar, please check with your advisor about recommendations for taking these courses earlier in your studies. CRCRTH 692 and 693 work best when taken after many other courses have been completed.

Grading and Incomplete Grades

Please refer to the Graduate Studies handbook for more information on university grading policies. Students are expected to maintain a 3.0 GPA (B or above) during their studies.

Incomplete (INC) grades may be granted as a result of documented illness or other reason that prevents the completion of the course, subject to instructor and Program Director approval, and it must be requested before the end of the semester. An Incomplete Contract must be established between the instructor and student in order to clearly define how to complete the course. This contract specifies exactly what work is to be done, and due dates, in order for the student to achieve a passing grade. The contract must be signed by the student, the instructor, and the chair or director of the department/program, and copies are returned to all parties, and additionally, to the Registrar's office. The grade of INC is issued on the student's academic record, and the instructor submits the final grade once the work is completed. If one full year goes by and the INC is not replaced with a final grade, the INC becomes an IF (Incomplete-Fail), and the student must retake the course under a new, paid registration in a future semester before they will be allowed to graduate.

Section 5: The Capstone Synthesis

Capstone Synthesis Course and General Requirements

Students enroll in **CRCRTH 694 Synthesis of Theory and Practice Seminar** (commonly called “Synthesis”) to undertake a supervised synthesis project and exit self-assessment, through which you review and reflect on the integration into your professional lives of critical and creative thinking skills and strategies and demonstrate competencies appropriate and relevant to your disciplines. The synthesis project has two parts: a written essay and an oral presentation. The synthesis project essay is expected to incorporate an appropriate theoretical framework and references to relevant scholarly work in its field. The oral presentation (typically 45 minutes) is given before members of the CCT faculty and is open to the CCT and university community and general public. Both the essay and the oral presentation are evaluated by at least two members of the CCT faculty.

The essay/paper (20-40 pages) may integrate exhibits from the student's work during the program, which may take a variety of forms, such as, Original Curriculum Materials, a Professional Development Workshop series, a Video case study, a Practitioner's Portfolio, or a Prospectus for future research and engagement. The form and length of the essay depends on the particular nature of the project. For example, an extended essay that reviews and critiques relevant literatures would be expected with the Prospectus, but a shorter essay may accompany a Video case study. See Appendix B, “Capstone Options”, for a more complete description of the options for completing the capstone project.

There are two required pre-capstone courses, CRCRTH 692 and CRCRTH693. Before CRCRTH 694 can be undertaken, CRCRTH 692 must be completed and a 500-1000 word proposal by the student must be approved by the advisor and Program Director. All Capstone Projects must demonstrate knowledge and integration of critical and creative thinking skills, processes and strategies. There are many specific options for these projects, listed below, from the development of a traditional theoretical paper to a curriculum or professional development series, to the creation of a web site.

Assessment of Capstone Synthesis

Although the focus of the CRCRTH 694 course is the completion of the capstone project, they are not literally one and the same. Completing the course and completing the capstone are related and yet differentiated in the way that each is assessed. A letter grade is awarded for the course in the standard format of graduate course grading. The grade is given based on both processes and outcomes of the course, such as the quality and quantity of written work done throughout the course, class participation, peer support, and other project achievements. Course grading may vary somewhat based on the individual Instructor but will be made available to students through the syllabus supplied before the beginning of the semester.

The formal assessment of the capstone itself is based on a standard rubric that addresses three specific required products:

- the written synthesis project
- the formal presentation of the project (to the CCT and wider community near the end of the semester in which CRCRTH 694 is taken)
- the exit self-assessment

Several elements of the whole project are scored, and averages between the Instructor and Reader are translated into a final assessment level:

- Pass with distinction
- Pass
- Low pass
- Needs to be revised

All students who have received a passing grade for the course and a final assessment other than “needs to be revised” may finish the course. See below, “Notes on Completing the Capstone Synthesis”. The capstone assessment is completed by both the 694 course instructor and one other faculty (sometimes called the “Reader”).

Please see the CRCRTH 694 course wiki page for the current rubric:

<http://crcrth694.wikispaces.umb.edu/>

Notes on Preparation for Synthesis Project

- Students preparing to take CRCRTH 694 should have no more than one outstanding Incomplete grade to address and should not be on academic probation.
- The Synthesis project should begin well before the synthesis seminar semester. During the semester before the synthesis seminar semester, either a semester of research/independent study or the Processes of Research and Engagement course should be taken. The deadlines for writing the synthesis product make it next to impossible to do any new research during the synthesis seminar semester, beyond what is needed to complete the literature review and subsequent write-up. The time between semesters should also be used to complete research prior to the synthesis seminar.
- The main advisor for the synthesis project will be the Instructor for the Synthesis course. The Instructor both awards the grade for the Synthesis course and completes one of the two assessments on the student’s written project, presentation, and exit self-assessment.
- In rare cases, the Reader may be someone other than CCT core faculty. If neither the Instructor nor the Reader are specialists in the area of interest of the student’s project, and the student has a specific person in mind who is such a specialist and comes from outside of CCT, the student may request this person as the Reader. This arrangement must be approved by the Graduate Program Director. Formally, the Reader is involved only at the end of the semester when the project assessment is done. Readers may agree and arrange to have more contact with students but are under no obligation to do so. These might involve periodic meetings or phone calls to review progress or help finding literature relevant to the project in the early stages. For a list of potential Readers outside of the regular teaching faculty, please contact the program.
- Students are encouraged to seek additional assistance from outside specialists as appropriate, although such individuals have no formal role from the point of view of the CCT program. Students are also encouraged to seek the services of an editor to review work for grammatical style and mechanics. Such copyediting work should not be expected of the Instructor or Reader, which gets in the way of the dialogue around work that most enhances the student’s project experience. In the past, Readers had a more involved ongoing role throughout the semester of the student’s project, but this is no longer the case.

Notes on Completing the Capstone Synthesis

- In cases where a student has done enough work to receive a passing grade in the course but has not completed the Synthesis project, the Instructor may initially allow an Incomplete or 'Y' grade to be given and arrange a Completion Contract with the student to finish the work. This option may only be used at the discretion of the Instructor and if the Synthesis is very close to being finished. The original Instructor continues as advisor during this period.
- Students who do not come close to finishing the Synthesis in one semester are urged to retake the course the next semester. (It really stretches CCT resources for faculty to be asked to advise students with incomplete Syntheses outside the system of registering for courses. In any case, it hasn't worked well for many students.)
- Students are encouraged to attend ongoing program writing workshops, and the end-of-semester "Marathon Day", typically one day in which students and faculty dedicate several hours to finishing long writing projects and offering mutual support and review for each other.
- The abstracts of pass or pass with distinction syntheses are submitted to ScholarWorks. A Committee of the Program faculty decides which students to be honored by submission of the full text pdf of their syntheses to ScholarWorks as examples of engaged scholarship from the CCT program.

Section 6: Graduating

Graduation from the CCT program is an exciting accomplishment, and several steps are needed to ensure that this happens smoothly.

First, make sure that you've completed all of the required courses and activities related to your track of study. See the section on "Program Requirements" near the beginning of this handbook.

Once all of the program requirements are met, students will prepare to graduate (in December, May, or August). In March or September before the expected graduation, students need to complete an Application to Graduate, available on the Registrar's web site:

http://www.umb.edu/registrar/graduation/applying_for_graduation/

CCT students complete the "General Graduate Degree Application for Masters, CAGS, and Doctoral Degrees" and then submit this to the Registrar who reviews it and sends it to be approved and signed by the Graduate Program Director. The required commencement fee is billed to your account.

Note that the application to graduate is typically due to the Registrar's office a few months before your expected graduation date (usually sometime in March for spring graduation, and sometime in October for fall graduation); please look for announcements from the Registrar and Graduate Studies about the specific deadline. Announcements referring to graduation details may also come by postal mail or email throughout the semester. Look to these for details about attendance at Convocation and Commencement, caps and gowns, and other logistics. The hood for CCT and SICW students is white in color, since the degree is an M.A.

Section 7: Beyond CCT: Opportunities and Resources for Graduates and the Wider Community

Program graduates form a crucial part of the ongoing success and life of the CCT community.

Publicity

Because of the unique qualities and interdisciplinary nature of the program, graduates play an important part in helping the outside world to appreciate the value of CCT alumni. Alumni play an important role in helping prospective students to learn about the M.A. degree and Graduate Certificate. The Program can supply publicity bookmarks, information sheets, and some other materials to alumni to draw attention to CCT when making public presentations or engaging with others who might be interested.

CCT Community Open Houses

The CCT program hosts monthly open house gatherings throughout the fall and spring semesters. Alumni are always welcomed to attend and are frequently invited to come to these events and share their work with current students and others in the CCT and university community. The Open Houses are always free and open to all in the CCT and university community, including prospective students and guests. At-a-distance is participation is possible through Skype. The Open Houses are formally organized as part of the program's vision for the "CCT Network", the name that we give to our wider community. The principles of this community lie in the following goals:

- Organizing, in a sustainable fashion, personal & professional development, community building, and educational-innovation activities beyond the formal CCT program of studies.
- Supplementing students' education through the involvement of alums.
- Continuing alums' education by their involvement in the education of students and each other.

Program alums are encouraged to participate in these events and bring their ongoing work back to the program, as we encourage students to get to know the range of possible outcomes of the critical and creative thinking experience.

Current schedule and descriptions of Open House events: <http://cct.wikispaces.umb.edu/CCTNetwork>

Social Media Communities

Two main social media sites extend the online interactions beyond the CCT and SICW programs of study:

Critical, Creative, and Reflective Practice: <http://cct.wikispaces.com/>

Science in a Changing World: <http://sicw.wikispaces.com/>

Collaborative Explorations

A Collaborative Explorations (CE) is a free, online, non-credit “mini-course” offered through the CCT program for both the CCT community and wider public. The CEs involve a problem-based learning approach involving the exploration of some special topic related to critical and creative thinking and reflective practice. These experiences are open to anyone interested in that topic. Each CE involves four 1-hour online meetings in Google+ Hangout (for synchronous audio/video conferencing), spaced one week apart. During these online meetings, those present participate in dialogue that helps to clarify their interest in the topic, share learnings and questions, and work together as co-inquirers. Participants each have their own perspective and motivations for exploring the topic, and so the group benefits from the diversity of what is shared. In between the online meetings, participants then each spend some time in independent exploration of the topic in directions that interest them most. The online meetings are often scheduled to be held on a day and time that is best for those who register ahead of time. All students are encouraged to participate as often as you wish.

For more background information, logistics, registration info., and announcements about future CEs, please visit:

<http://collabex.wikispaces.com/>

Examples of past topics are listed here:

- Creative and Transformative Education
- Design for Living Complexities
- Preparing People to be Informed Participants in Political Debates about Science, Technology, and Social Change
- Scaffolding Creative Learning

Appendix A: Research and Study Competencies

CCT expects students early in their program of study to develop competencies in the areas below. Make use of self-study guides and workshops to assist your development. Use the left margin to take stock of what you already do well and what your priorities are for next steps. An online version of these competencies with live links can also be viewed at <http://cct.wikispaces.umb.edu/competencies>

- Computer use
 - Establish how you'll use email, so that you can keep school work separate from personal and work emails (including deciding if you'll regularly check your [UMB student email account](#), or have messages sent to it automatically forwarded to a personal email account)
 - Establish a filing system for email and attachments downloaded to your own computer
 - Establish a system on your computer of folders/directories and folders/directories inside folders/directories, so that all files are inside folders/directories and can be easily backed up or synchronized (Examples: Courses; Email; Bibliographic records; Work/Organizations; Correspondence;...)
 - Establish an account on Google and understand how to use Google+ Hangouts, Google Drive for sharing files, and other tools to help with collaboration and communication.
 - Establish a system using flash drives/online file-sharing/online backup services to synchronize files from one computer to the next
 - Use of email mailing lists and online discussion boards in support of your academic work
 - Use of wikis for collaborative knowledge generation, e.g., [CCT wiki](#)
 - Use of social network sites (to extend the experiences that we value in face-to-face and person-to-person interactions and to spark other kinds of generative interactions that hadn't been happening off-line, e.g., those listed in Section 7)
 - Become familiar with the facilities and professional development opportunities provided by [Information Technology](#)
 - Install an up-to-date internet browser and set your preferences on it
 - Combine the above into a sustainable set of computer-use practices (see guide to a [virtual office](#))
- Library use and Research
 - Get your student ID card and then a [library bar code](#)
 - Access to on-line reference material and internet searching via on-line tutorials or workshops
 - Establish a bibliography database for references (recommended software, Endnote or RefWorks, [available to students for free through your Healey Library account](#))
 - Understand that using material you did not write without citing the source is plagiarism and unacceptable (see the library's [Research Guide](#) on this topic).
 - Establish a system of files to organize research materials that you have on paper (complementing the electronic filing system).
- Writing and Editing
 - Arrange peer and/or professional editorial assistance (which frees professors to interact with you around your ideas)
 - Explore writing assistance if needed (e.g., [Graduate Writing Center/Academic Support](#))

- Establish preferred citation style and prepare a guide for yourself to use it consistently (see the library's [Research Guide](#) on this topic)
- Spelling and grammar check using a word processing program
- Standard, consistent use of commas and other punctuation (use Turabian or other reference to create a checklist)
- Formatting documents, using your word processor's ruler, table layout, page breaks, indents (minimize the use of tabs/spaces to align and position text)
- [Phases of developing research writing](#), which are adaptable to any project.
- Reflective Practice
 - Personal/professional workbook, including notes, journaling, information you want to refer back to
 - [Reflective Practice \(or Metacognitive\) Portfolio](#)
 - Use of social network sites to extend the experiences that we value in face-to-face and person-to-person interactions and to spark other kinds of generative interactions that hadn't been happening off-line, e.g., [CCT](#) and [SICW](#) social networks
 - Hidden diversity ("underlying differences that shape who we are in unique ways...allow[ing] us the opportunity to contribute to society in very individual and productive ways")
 - The [Rs of the CCT experience](#) (personal, professional, and intellectual development through the CCT Program)
 - [Developing as a Reflective Practitioner](#) (designed for reviewing the synthesis project, but adaptable to any project)

Appendix B: Capstone Options

1. A **Position Paper** addressing a question or set of questions through review and critique of the appropriate literatures, and concluding with a set of recommendations or reframed/reinterpreted questions. (E.g., How is transfer of learning currently understood? How can transfer of learning be facilitated in middle school math classes?) Students are encouraged to write the essay as a publishable article for a specific professional journal.

2a. A **Practitioner's Narrative** in which teachers or other practitioners describe and reflect on the implementation of a change process in their setting. Including an account of initiatives, consequences, obstacles, problem solving, and project redesign, as well as reflections on the change process itself.

2b. A **Practitioner's Narrative** in which the reflective narrative is not focused on a particular event or change but is an occasion for the writers to think deeply about their own practice-its origin, dynamic nature, influences, commitments, and future directions-to yield useful insights and discoveries.

3. An 18-20 lesson **Curriculum unit or Professional Development Workshop Series** reflecting the integration of recommendations from the CCT Program, including a rationale of its design and structure, detailed plans, and assessment procedures.

4. A set of **Original Curriculum Materials**; the accompanying paper explains how and why the materials were developed, what need they meet, and specifically how they are to be used for instruction and assessment.

5. A set of **Curriculum materials in another form** (e.g. software) supported by an essay as in (4).

6. A **Video case study** in 5 to 8 scenes designed to promote reflective dialogue and analysis of how the teacher/ leader functions; focusing on some aspects of teaching for thinking, and presenting reflections by the subject themselves and two others (for example, a student, colleague, parent). (The video might be used in CCT classes to provoke more subtle discussions of practice.) The video case study is to be accompanied by a supporting essay.

7. An **Arts option**, comprising a work of literature or a video piece; the accompanying essay describes the work's evolution, and locates it in an appropriate theoretical framework.

7a. *Literature or visual product* -- a piece of fiction, poetry or drama of appropriate scope (e.g. a one act play, a poetry chapbook, a short story or 2-3 short, shorts) polished and publication ready.

7b. A *Video Enactment* -- a vignette, extended dramatic monologue, poetry reading, dance, musical performance, recorded (edited) with reasonable professionalism.

Portfolio option (approved by CCT Faculty, 3/25/02): Students may combine a practitioner's narrative related to your development during your CCT's studies (option 2b) with a reduced length version of any of the other options. The practitioner's narrative "is an occasion for the writer to think deeply about his/her own practice-its origin, dynamic nature, influences, commitments, and future directions-to yield useful insights and discoveries." The recommended way to undertake this kind of practitioner's narrative is to prepare a "process review portfolio" consisting of exhibits with one-page annotations and an overall introduction, afterword, and a paragraph overview (to be included with your synthesis abstract). These exhibits should be selected to convey your process of development during your studies, not only your best work or your final products. For this option to be meaningful, you should save material for exhibits all through your studies. More details

Appendix C: CCT Faculty and Staff

Core Faculty and Staff

- [Lawrence Blum, Professor of Philosophy and Distinguished Professor of Liberal Arts and Education, College of Liberal Arts](#)
- [Arthur Millman, Associate Professor and Department Chair of Philosophy, College of Liberal Arts](#)
- [Carol Smith, Professor of Psychology, College of Liberal Arts](#) (Professor Emerita)
- Jeremy Szteiter, Critical and Creative Thinking Assistant Director, College of Advancing and Professional Studies
- [Peter Taylor, Professor of Critical and Creative Thinking, Program Director and Coordinator of Science in a Changing World track](#)

Associate Faculty, Regular CCT track

- [Denise Patmon, Associate Professor of Education, College of Education and Human Development](#)

Associate Faculty, Science in a Changing World track

- Gonzalo Bacigalupe, Professor of Family Therapy, College of Education and Human Dev.
- [Arthur Eisenkraft, Distinguished Professor of Science Education, College of Education and Human Development, and Director of the Center of Science and Math in Context \(COSMIC\)](#)
- Rick Kesseli, Professor of Biology, College of Science and Mathematics
- David Levy, Professor of Management and Marketing, College of Management
- Scott Maisano, Associate Professor of English, College of Liberal Arts
- Rosalyn Negrón, Assistant Professor of Anthropology, College of Liberal Arts
- Mark Pawlak, Director of Academic Support
- Louise Penner, Associate Professor of English, College of Liberal Arts
- [Rachel Skvirsky, Associate Professor of Biology, College of Science and Mathematics](#)
- [Robert Stevenson, Professor of Biology, College of Science and Mathematics](#)
- [Bala Sundaram, Chair-Physics Department, College of Science and Mathematics](#)
- [Brian White, Associate Professor of Biology Education](#), College of Science and Mathematics

Part-time Faculty

- Suzanne Clark, Associate Professor, Berklee College of Music
- Delores Gallo, Professor Emerita, CCT Program
- [Nina Greenwald, Lecturer, College of Education and Human Development](#)
- Olen Gunnlaugson, Asst. Professor in Leadership and Organizational Development, Université Laval
- David S. Martin, Dean Emeritus, Gallaudet University
- Micia Mosely
- Mark D. Robinson
- Ben Schwendener
- Luanne Witkowski

Appendix D: Courses and Descriptions

For up-to-date information on course descriptions and planned offerings, refer to:

<http://cct.wikispaces.umb.edu/courses>. This page includes the most recent syllabus for many course sections, along with summaries of course evaluations from previous students.

Foundation Courses (regular CCT track)

(All required for M.A.; 601 & 602 required for certificate)

- CrCrTh 601 Critical Thinking
- CrCrTh 602 Creative Thinking
- CrCrTh 603 (formerly called PHIL 501) Foundations of Philosophical Thought
- CrCrTh 651 (also offered as PSYCH 550) Advanced Cognitive Psychology

Within the regular track students choosing a concentration in Liberal and Interdisciplinary Studies will choose foundation courses from these areas:

- Arts & Humanities option (CrCrTh 603 Foundations of Philosophical Thought)
- Social and Behavioral Sciences option (CrCrTh 651 Advanced Cognitive Psychology, CrCrTh 649 Scientific and Political Change)
- Natural Sciences option (CrCrTh 640 Environment, Science and Society: Critical Thinking, CrCrTh 650 Mathematical Thinking, CrCrTh 645 Biology in Society: Critical Thinking, CrCrTh 652 Children And Science)
- Educational Studies option (CrCrTh 601, CrCrTh 602, CrCrTh 655)

Foundation Courses (Science in a Changing World track)

(All required for M.A.; two required for certificate)

- CrCrTh640 Environment, Science and Society: Critical Thinking OR CrCrTh645L Biology in Society: Critical Thinking
- CrCrTh649L Scientific and Political Change
- CrCrTh650 Mathematical Thinking
- CrCrTh652 Children And Science

Elective Courses

(4 required for M.A.; 3 for certificate)

(Science in a Changing World students may take the regular core courses as electives.)

(* indicates not offered in recent years)

- CrCrTh 611 Seminar In Critical Thinking (themes: Design for Living Complexities; Critical Thinking in Business)
- CrCrTh 612 Seminar In Creativity (themes: Exploring Creative Blocks; Creative Thinking at Work)

- CrCrTh 615 Holistic and Transformative Teaching
- CrCrTh 616 Dialogue Processes
- CrCrTh 618 Creative Thinking, Collaboration and Organizational Change
- CrCrTh 619 Biomedical ethics
- CrCrTh 620 Moral Education*
- CrCrTh 627 Issues In Antiracist And Multicultural Education
- CrCrTh 630 Creativity And Criticism In Literature And Art
- CrCrTh 640 Environment, Science and Society: Critical Thinking
- CrCrTh 645L Biology in Society: Critical Thinking
- CrCrTh 646L The Gifted and Talented Student
- CrCrTh 649L Scientific and Political Change
- CrCrTh 650 Mathematical Thinking
- CrCrTh 652 Children And Science
- CrCrTh 653L Epidemiological Thinking and Population Health
- CrCrTh 655 Metacognition
- CrCrTh 670 Thinking, Learning and Computers (fall on-line)
- CrCrTh 688 Reflective Practice (1-3 credits) (fall & spring)

Required Final Courses for M.A.

- CrCrTh 692 Processes of Research and Engagement
- CrCrTh 693 Action Research for Educational, Professional and Personal Change (formerly Evaluation Of Educational Change)
- CrCrTh 694 Synthesis Of Theory And Practice

CrCrTh 601 Critical Thinking

This course explores issues about the nature and techniques of critical thought, viewed as a way to establish a reliable basis for our claims, beliefs, and attitudes about the world. We explore multiple perspectives, placing established facts, theories, and practices in tension with alternatives to see how things could be otherwise. Views about observation and interpretation, reasoning and inference, valuing and judging, and the production of knowledge in its social context are considered. Special attention is given to translating what is learned into strategies, materials, and interventions for use in students' own educational and professional settings.

CrCrTh 602 Creative Thinking

This course explores approaches to "How might we proceed when confronted by problems, situations too ambiguous, complex, or messy or impossible to be addressed directly through logical strategies?" It seeks to increase the participants' understanding of creativity, to improve their creative problem-solving skills and to enhance their ability to promote these skills in others, in a variety of educational settings. Students participate in activities designed to help develop their own creativity, and discuss the creative process from various theoretical perspectives. Readings are on such topics as creative individuals, environments that tend to enhance creative functioning, and related educational issues. Discussions with artists, scientists and others particularly involved in the creative process focus on

their techniques, and on ways in which creativity can be nurtured.

CrCrTh 603/PHIL 501 **Foundations of Philosophical Thought**

By discussing four or five substantive problems in philosophy -- morality, the nature of knowledge, freedom of the will, the nature of mind, and social organization -- we will attempt to derive a common approach that philosophers bring to these problems when developing their own solutions to questions such as, "How do we know what we know?" or when criticizing the solutions of other philosophers. In the course of this discussion we will consider some of the ways that substantive issues and debates in philosophy relate to contemporary non-philosophical issues in our society and can be introduced into a broad range of educational environments outside standard philosophy courses. In connection with the latter, we will examine curriculum materials and discuss questions about the ability of children and adolescents to think philosophically.

CrCrTh 651/PSYCH 550 **Advanced Cognitive Psychology**

This course offers the most up-to-date knowledge on perception, memory, imagery, and problem solving to enhance one's approach to problem-solving. It provides a survey of the field of cognitive psychology from an information-processing viewpoint. This course will consider how people encode, organize, transform and output information. Emphasis will be placed on such topics as concept formulation, problem solving, and creative thinking.

Students who choose the Science in a Changing World track take alternative foundation courses: CrCrTh640 Environment, Science and Society: Critical Thinking **OR** CrCrTh645L Biology in Society: Critical Thinking; CrCrTh649L Scientific and Political Change; CrCrTh650 Mathematical Thinking; CrCrTh652 Children And Science

CrCrTh 611 **Seminar In Critical Thinking**

Current Themes (varies by section): Design for Living Complexities; Critical Thinking in Business

Theme: Design for Living Complexities (hybrid)

Design is about intentionality in construction, which involves a range of materials, a sequence of steps, and principles that inform the choice of material and the steps. Design always involves putting people as well as materials into place, which may happen by working with the known properties of the people and materials, trying out new arrangements, or working around their constraints (at least temporarily). Critical thinking involves understanding ideas and practices better when we examine them in relation to alternatives. This course exposes and explores alternative designs through history (showing that things have by no means always been the way they are now), "archeology of the present" (shedding light on what we might have taken for granted or left as someone else's responsibility/specialty), comparison (looking at the ways things are arranged in different organizations and cultures), and ill-defined problems (in cases of real-world "living complexity" that invite a range of responses).

Each course session takes up an issue about design, introduced in a presentation (drawing on videos available online), followed by in-class work on a case related to that issue and, at the start of the next session, reports on students' design sketches to address the case. With each design sketch, students add to or revise a growing set of principles for critical thinking in design. The design sketches and principles will, with students' permission, be made accessible to a wider online audience and serve as part of an evolving online text for subsequent years.

Theme: Critical Thinking in Business (online)

This course provides professionals with critical thinking skills for the following: decision making and problem solving; marketing, sales, and understanding customers' perspectives; cause and effect relationships; detecting flaws and biases in one's thinking

The course is appropriate for managers, sales people, accounting professionals, human resources staff, marketing staff, and business students. Emphasis is on practical application of skills.

CrCrTh 612 Seminar In Creativity

This course delves deeply into the theory and practice of promoting creativity, using a specific theme, such as invention and innovation, humor, realizing creative aspirations, building creative communities, as a focus for the readings, discussions, class activities, and semester-long student projects. The course materials, which are drawn from a variety of sources to match the instructor's specialty, student interests, and evolving trends in the literature, include biographies, intellectual histories, psychological studies, educational research, the popular media, guest speakers, and outside mentors. Details for the specific semester are publicized in advance by the Program.

CrCrTh 615 Holistic and Transformative Teaching

This course explores approaches which tap both teachers' and students' potential for learning, thinking, and creativity. Its primary focus is on integrative, holistic strategies to engage students creatively in literature, writing and the arts. Participants are actively involved in preparing practical applications and demonstrations of concepts emerging from the class.

CrCrTh 616 Dialogue Processes

Genuine dialogue provides a creative social space in which entirely new ways of thinking, learning, and relating to others may emerge. Dialogue involves a shared process of collective inquiry where people work together to understand the assumptions underlying their individual and collective views that limit their thinking and responses to the world. Course participants learn and experience approaches to dialogue inspired by Bohm, Isaacs, Scharmer, Weissglass and others in the interest of bringing about significant educational, organizational, social, and personal change.

CrCrTh 618 Creative Thinking, Collaboration and Organizational Change

Through interactive, experiential sessions and structured assignments students learn critical and creative approaches to working in organizations. Skills addressed include: communication and team-building; facilitation of participation and collaboration in groups; promotion of learning from a diversity of perspectives; problem-finding and solving; and reflective practice. Students apply these skills to situations that arise in business, schools, social change groups, and other organizations with a view to taking initiative and generating constructive change.

CrCrTh 619 **Biomedical Ethics**

This course develops students' critical thinking about dilemmas in medicine and health care policy, such as those that arise around allocation of scarce resources, criteria for organ transplants, informed consent, experimentation on human subjects, AIDS research, embryo research and selective termination of pregnancy, euthanasia, and physician-assisted suicide. Through such cases the course introduces methods in moral reasoning, rights-based reasoning, decision-making under uncertainty, and utilitarianism in classic and contemporary normative reasoning.

CrCrTh 620 **Moral Education** (*not current scheduled for upcoming semesters*)

A comprehensive analysis of the basic issues in moral education from an interdisciplinary perspective. Philosophical studies of the nature of morality and the moral life will be integrated with psychological studies of moral development and human motivation and brought to bear on issues in teaching morality. Topics covered will include: rationality, emotion, and the moral development of children; moral education. indoctrination; socialization, the "hidden curriculum," and moral education. Throughout this course theoretical insights will be applied to an examination of materials, programs, and practices in moral education, both in schools and the wider community.

CrCrTh 627 **Issues In Antiracist And Multicultural Education**

The course deals with complex and emotionally-charged issues of culture, religion, sexual orientation, and, especially, race, both in society generally and specifically in education. How do we teach against racism, homophobia, cultural and religious parochialism, while being respectful of the many points of view represented in most classrooms? The readings present these issues as many-sided, and the instructor strives to make the classroom a safe and respectful space to voice one's opinions and learn from others. This is not a "how to" course but rather helps people in various fields, including teaching, think and reflect on issues they will face with students, colleagues, and clients. The course is open, with permission of instructor, to one or two advanced undergraduates who are interested in going into the field of education. (Contact instructor if you think you fall into this category.) The course will explore two related forms of education -- (a) antiracist education, (b) multicultural education -- approaching them as issues in moral and value education and exploring controversies in the theories and practices of antiracist and multicultural education. Some specific topics include: race and school achievement; ethnic identity and self-esteem; racial and ethnic stereotypes; Afrocentrism; religious pluralism; multiculturalism -- a unifying or divisive force?; antiracist and multicultural curricular approaches. Also, some attention will be paid to sexual orientation controversies.

CrCrTh 630 **Criticism and Creativity In Literature and the Arts**

Expression and evaluation, freedom and discipline, creative production and the critical response to it -- how do these dualities relate to visual and verbal imagination as they are demonstrated in literature and the arts? Specific strategies for eliciting imaginative work in these areas will be demonstrated, as will specific strategies for evaluating imaginative works. Finally, this course will focus on ways to help others (including children) develop critical and creative skills and on ways to effectively use strategies for eliciting and evaluating imaginative work.

CrCrTh 640 **Environment, Science and Society: Critical Thinking**

Current and historical cases are used to examine the diverse influences that shape environmental

science and politics. This exploration, in turn, leads to new questions and alternative approaches for educators, environmental professionals, and concerned citizens.

CrCrTh 645 Biology in Society: Critical Thinking

Current and historical cases are used to examine the political, ethical, and other social dimensions of the life sciences. Close examination of developments in the life sciences can lead to questions about the social influences shaping scientists' work or its application. This, in turn, can lead to new questions and alternative approaches for educators, biologists, health professionals, and concerned citizens.

CrCrTh646L The Gifted and Talented Student

Gifted and talented students are one of our most underserved populations of learners. This state-of-the-art course is designed for teachers, and others (curriculum coordinators, administrators, parents) responsible for meeting the special needs of high potential learners in the regular and/or special classroom and at home. A broad spectrum of contemporary views on definition, identification, and characteristics of high potential learners are explored through lively critical and creative thinking activities and discussion. Included is examination of further individual differences such as ethnicity, gender, misdiagnoses and dual diagnoses, underachievement and learning disabilities. Creation of learning environments and curriculum and instructional strategies that motivate and challenge high potential learners of any developmental age is also a major focus. This includes problem and inquiry-based learning, creative problem solving, invention, and humor and thinking which are specializations of the instructor. The course culminates with a unique opportunity for participants to practice what they learn with small groups of gifted students who join us in class for this purpose!

CrCrTh 649L Scientific and Political Change (formerly: Science, Technology and Public Policy)

Although relatively few Americans have backgrounds in science or engineering, they are increasingly confronted with issues that are technically complex. This course explores the resulting tensions and asks how the needs for scientific expertise and democratic control of science and technology are reconciled. The first half of the course traces the historical development of American science policy and situates this development comparatively. The second half focuses on contemporary controversies, including those over the nature of university-industry relations, patent policy, and the cases of expert/lay disagreements over risk.

- Students outside UMass Boston can be brought into this course from a distance (requiring only a broadband internet connection).
- An innovative case-based learning approach in this course allows students to shape individualized directions of inquiry and develop their skills as investigators and prospective teachers.

CrCrTh 650 Mathematical Thinking

This course explores several types of mathematical thinking in the context of number theory, algebra, geometry, and introductory calculus, and relates them to critical and creative thinking skills.

Developmental and experiential factors in learning and teaching mathematics are considered, as well as techniques for determining a learner's mathematical abilities and learning styles. Readings, discussion, research, and problem-solving are used to provide a historical context, and to suggest connections with other disciplines. Individual and small-group projects are adapted to student interests. No formal mathematical background beyond high school algebra and geometry is required.

CrCrTh 652 Children And Science

This course explores the ways children think about their natural and social world and how this affects their learning of science. We will be particularly concerned with identifying and describing the organized conceptual frameworks children have prior to instruction (which typically are different from the scientists' conceptualizations) and with understanding the general processes by which conceptual frameworks can be changed. One important question concerns in what ways children are fundamentally different learners and thinkers than adults and in what ways they are fundamentally similar.

CrCrTh 653L Epidemiological Thinking and Population Health

Introduction to the concepts, methods, and problems involved in analyzing the biological and social influences on behaviors and diseases and in translating such analyses into population health policy and practice. Special attention given to social inequalities, changes over the life course, and heterogeneous pathways. Case studies and course projects are shaped to accommodate students with interests in diverse fields related to health and public policy. Students are assumed to have a statistical background, but the course emphasizes epidemiological literacy with a view to collaborating thoughtfully with specialists, not technical expertise.

CRCRTH 655 Metacognition

This course considers various aspects of metacognition and how they influence behavior in children and adults. Topics include the individual's knowledge of his or her own cognition, self-awareness, the monitoring of conscious thought processes, inferences about unconscious thought processes, metacognition as a decision process, metacognitive strategies, the development of metacognition, and metacognition as a source of individual differences in children.

CrCrTh 670 Thinking, Learning and Computers

This course considers the consequences of using computers to aid our thinking, learning, communication and action in classrooms, organizations, and social interactions. Class activities acquaint students with specific computer-based tools, the ideas and research behind them, and themes for critical thinking about these ideas and tools.

CrCrTh 688 Reflective Practice

Reflective practitioners in any profession pilot new practices, take stock of outcomes and reflect on possible directions, and make plans to revise their practice accordingly. They also make connections with colleagues who model new practices and support the experimenting and practice of others. Students in this course gain experiences and up-to-date tools for reflective practice through presentations, interactive and experiential sessions, and, optionally, supervised pilot activities in schools, workplaces, and communities.

CrCrTh 692 Processes of Research and Engagement (previously CCT698, Practicum)

In this course students identify issues in educational or other professional settings on which to focus their critical and creative thinking skills. Each student works through the different stages of research and action—from defining a manageable project to communicating findings and plans for further work. Supervision is provided when the student's research centers on new teaching practices, workshops in the community, or other kinds of engagement as an intern or volunteer. The classes run as workshops, in which students are introduced to and then practice using tools for research, writing, communicating, and supporting the work of others.

(Compared with CrCrTh 693, this course allows more exploration of your own direction and questions, especially through dialogue around written work and class presentations.)

CrCrTh 693 Action Research for Educational, Professional, and Personal Change (previously Evaluation of Educational Change)

This course covers techniques for and critical thinking about the evaluation of changes in educational practices and policies in schools, organizations, and informal contexts. Topics include quantitative and qualitative methods for design and analysis, participatory design of practices and policies in a framework of action research, institutional learning, the wider reception or discounting of evaluations, and selected case studies, including those arising from semester-long student projects. "Evaluation" does not mean assessment of students' work, but systematic evaluation of the effect of changes in educational practices and policies in schools, organizations, and informal contexts. The course uses the discipline of evaluation as part of the practice of action research. The larger issues facing a practitioner as change-agent, over and above the evaluations, cannot help but enter class discussions and your projects. Unless the educational or professional engagement/change you're concerned about has already been instituted, you will spend time designing it in conjunction with designing how you will evaluate it.

CrCrTh 694 Synthesis Seminar (offered whenever we can get sections of six students)

The synthesis seminar is a structure within which to meet deadlines and get assistance in completing the written product of the synthesis project or thesis. There are many specific options for syntheses, from the development of a traditional theoretical paper, to a curriculum or professional development series, to writing a business plan, to the creation of a web page.

CrCrTh 696 Independent Study (1-3 Credits)

The comprehensive study of a particular topic or area of literature determined by the student's need; the study is pursued under the guidance, and subject to the examination, of the instructor. An application or outline of study should be agreed by the instructor and program director before you register.