

University of Massachusetts at Boston  
CCT 601: Critical Thinking  
June 27-July 14, 2011

SYLLABUS

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This course explores the diverse nature and techniques of critical thinking. Views about observation and interpretation, reasoning and inference, and valuing and judging will all be considered, giving special attention to how we can help others to develop the skills needed to do these things well, especially through our standard educational structures. We will consider central concepts of critical thinking, their applications in a variety of domains, and ways to assess the effectiveness of their applications. Working with diverse material, from political and scientific events occurring in the world to issues and dilemmas that characterize everyday life, we will examine and practice kinds of thinking that promote reasonable, reflective action and belief. We will also consider several current issues in the field of critical thinking such as the role of gender in critical thinking, relationships between critical and creative thinking, domain-specific critical thinking, and best practices for applying thinking skills and dispositions.

We understand our thoughts better when we express them. Your contributions to learning experiences in class will be sought and you will be encouraged to gain useful insights from others as well. All of us, the instructor included, can learn from each other and grow in our abilities to challenge and modify ideas in constructive ways. Through extensive interactions with each other, in a climate of enjoyment, this class is designed for us all to continue to develop our abilities to use careful thinking and sound judgment.

Course Goals:

- (1) To develop further the critical thinking skills and dispositions of the course participants.
- (2) To help participants understand what critical thinking is and how to apply the skills and strategies of critical thinking in a wide variety of settings.
- (3) To help participants develop the capability of helping others become better critical thinkers in a wide variety of settings.

Texts: Shari Tishman, David N. Perkins, and Eileen Jay, The Thinking Classroom: Learning and Teaching in a Culture of Thinking (Boston: Allyn and Bacon, 1995)

Arthur L. Costa (ed.), Developing Minds: A Resource Book for Teaching Thinking, 3<sup>rd</sup> edition (Alexandria, VA: ASCD, 2001) [Abbreviated as DM]

Some additional required readings will be distributed in class.

Requirements:

- 1) Participating actively in class [15 % of grade]. This includes keeping up with the reading as well as writing 1-page reflections each week, except for days when there is another written assignment.
- 2) Writing three Reflection Papers (each about 3-4 typewritten pages) on readings and issues discussed in class [30%]. The reflection papers are due on Thursday June 30, Thursday July 7, and Wednesday, July 13. ( This assignment relates to the program expectation that students will maintain a Reflective Practice and Metacognitive Portfolio throughout their experiences in the program as a whole.)
- 3) As part of a team, designing and conducting an in-class learning experience that applies critical thinking [10%]. A proposal from each team is due by Tuesday, July 2.
- 4) Writing a Manifesto (about 3 typewritten pages) synthesizing your view of ideas about critical thinking that you have found most important [15%]. The manifesto is due Thursday, July 14.
- 5) Writing a thoughtful Final Paper (about 10 double-spaced typed pages, plus references) [30%]. This paper is due on Friday, July 15 in the Curriculum and Instruction Office Department by 2pm.  
A paper proposal with outline is due by Tuesday, July 12. Students are encouraged to make connections in the paper with their other interests and projects

Note: A rare professional opportunity is available in the period July 10-14 in 2011 in Boston with the annual international conference of the International Association of Cognition, Education, and Psychology. Class members are strongly encouraged to register for at least a one-day time period for that conference and attend sessions of their choice, with a summary provided to class members afterward. A program of sessions will be made available at the first day of the course.

## Class Schedule and Readings

The class will meet Monday through Thursday for the weeks of June 27, July 4, and July 11, from 5 to 8pm, with a short break in the middle of the session. A makeup time for the holiday of July 4 will be agreed upon at the first class session.

Completion of reading requirements must be done prior to the class session in which they are listed.

1) Mon. June 27. Introductions. Course expectations. Thinking about critical thinking: What is critical thinking? Who is a critical thinker? The place and rationale of critical thinking. What do critical thinkers do? Initial conceptions of critical thinking. Teaching of, for, and about thinking.

2) Tues. June 28. A culture of thinking and the language of thinking. Six dimensions of a culture of thinking. Cultural forces: models, explanation, interaction, and feedback. Why teach thinking? Why be a critical thinker? Critical thinking skills (abilities), dispositions, and techniques. The history of the Thinking Skills movement in education.

Readings: Shari Tishman et al., pp. 1-36 ("The Idea of a Culture of Thinking," "The Language of Thinking," and "The Language of Thinking: Pictures of Practice");  
Arthur L. Costa and Robert J. Marzano, "Teaching the Language of Thinking" [DM, pp. 379-383];  
Lauren B. Resnick, "Making America Smarter: The Real Goal of School Reform" [DM, pp.3- 6];  
LeRoy Hay, "Thinking Skills for the Information Age" [DM, pp. 7-10];  
Sheldon Berman, "Thinking in Context: Teaching for Open-mindedness and Critical Understanding" [DM, pp. 11-17];  
John Edwards, "Learning and Thinking in the Workplace" [DM, pp. 23-28];  
Robert H. Ennis, "Goals for a Critical Thinking Curriculum and Its Assessment" [DM, pp. 44-46];  
Dee Dickinson, "Thoughtful Parenting" [DM, pp. 101-105]

3) Wed. June 29. Developing as a critical thinker. Dispositions for thinking. Open-mindedness as a critical thinking disposition. Problem-solving and decision-making as contexts for application of critical thinking. Changing conceptions of intelligence. Roots of the movement in both psychology and philosophy.

Readings: Shari Tishman et al., pp. 37-64 ("Thinking Dispositions" and "Thinking Dispositions: Pictures of Practice");  
Shari Tishman, "Added Value: A Dispositional Perspective on Thinking"

[DM, pp. 72-75];  
Jonathan Baron, "Actively Open-minded Thinking" [DM, pp. 76-79];  
Arthur L. Costa, "Habits of Mind" [DM, pp. 80-86];  
Jack Lochhead and Aletta Zietsman, "What Is Problem Solving?" [DM,  
pp. 54-57];  
Robert J. Swartz, "Thinking about Decisions" [DM, pp. 58-66];  
Robin Fogarty, "Our Changing Perspective of Intelligence: Master  
Architects of the Intellect" [DM, pp. 144-149]

4) Thurs. June 30. Examples of critical thinking skills: assessing source credibility and observation. Perceptual filters; point of view; frame of reference; world view. Thinking and writing. Metacognition as mental management (awareness, evaluation, and planning). Self-assessment.

#### First Reflection Paper Due

Readings: Shari Tishman et al., pp. 65-95 ("Mental Management" and "Mental Management: Pictures of Practice");  
Arthur Costa, "Mediating the Metacognitive" [DM, pp. 408-412];  
Barry K. Beyer, "Teaching Thinking Skills—Defining the Problem" [DM, pp. 35-40];  
Peter Elbow, "Teaching Two Kinds of Critical Thinking by Teaching Writing";  
Jay McTighe and Frank T. Lyman Jr., "Cueing Thinking in the Classroom: The Promise of Theory-embedded Tools" [DM, pp. 384-392]

5) Makeup Session for Monday, July 4. The strategic spirit. Multiple perspectives and strong-sense critical thinking. Infusion of critical thinking in regular instruction in a wide range of domains. Lesson plan and action plan remodeling. Critical thinking outside schools.

#### Team Proposals for In-Class Learning Experience Due

Readings: Shari Tishman et al., pp. 97-124 ("The Strategic Spirit" and "The Strategic Spirit: Pictures of Practice");  
Richard Paul, "Dialogical and Dialectical Thinking" [DM, pp. 427-436];  
Richard Paul, "Teaching Critical thinking in the Strong Sense: A focus on Self-Deception, World Views, and a Dialectical Mode of Analysis";  
Robert J. Swartz, "Infusing Critical and Creative Thinking into Content Instruction" [DM, pp. 266-274];  
Select one of the essays in Section VII ("Teaching in School Subjects") in Developing Minds;

Geoffrey Caine and Renate Nummela Caine, "Capitalizing on the Invisible Dimension of Organizational Learning" [DM, pp. 96-100]

6) Tues. July 5. Methodological believing as part of critical thinking. Listening. Teacher behaviors. The teacher as designer. Critical thinking skills: causal reasoning. Pedagogical constructivism.

Readings: Peter Elbow, "Methodological Believing and Doubting";  
Arthur Costa, "Teacher Behaviors That Enable Student Thinking" [DM, 359-369];  
Barry K. Beyer, "Developing a Scope and Sequence for Thinking Skills Instruction" [DM, pp. 248-252];  
Bena Kallick and Marian Leibowitz, "Teacher as 'Thought-full' Designer" [DM, pp. 253-255]  
Owen Gingerich, "The Galileo Affair";  
Jacqueline Grennon Brooks and Martin G. Brooks, "Becoming a Constructivist Teacher" [DM, pp. 150-157];  
David Perkins, "The Social Side of Thinking" [DM, pp. 158-163];  
David Perkins, "Thinking for Understanding" [DM, pp. 446-450];  
Barbara Z. Presseisen, "Thinking Skills: Meanings and Models Revisited" [DM, pp. 47-53]

7) Wed. July 6. Problem-based learning (PBL). Higher-order knowledge: critical thinking and content knowledge. Domain-specific critical thinking. Environments for thinking. Emotion and critical thinking. More on dialogical and strong-sense critical thinking. Rational passions. Philosophy and critical thinking.

Readings: Shari Tishman et al., pp. 125-154 ("Higher Order Knowledge" and "Higher Order Knowledge: Pictures of Practice");  
John Barell, Cheryl Hopper, and Ann White, "Big Rocks and Powerful Kingdoms: Problem-based Learning in Science and Social Studies" [DM, pp. 256-261];  
Robert J. Sternberg, "Teaching Problem Solving as a Way of Life" [DM, pp. 451-454];  
John Barrell, "Designing the Invitational Environment" [DM, pp. 106-110];  
Arthur L. Costa, "Mediative Environments" [DM, pp. 135-140]  
Robert J. Swartz, "In the Grips of Emotion" [DM, pp. 164-169]  
Richard Paul, "Dialogical thinking: Critical Thought Essential to the Acquisition of Rational Knowledge and Passions";  
Barry K. Beyer, "What Philosophy Offers to the Teaching of Thinking" [DM, pp. 87-91];  
Thomas E. Jackson, "The Art and Craft of 'Gently Socratic' Inquiry" [DM, pp. 459-465]

8). Thurs. July 7. Empathy. Critical thinking and gender. Cultural contexts.

Second Reflection Paper Due

Readings: Delores Gallo, "Educating for Empathy, Reason, and Imagination";  
Douglas F. Brenner and Sandra Parks, "Cultural Influences on Critical  
Thinking and Problem Solving" [DM, pp. 216-221];  
Ruby K. Payne, "Thinking in a Culture of Poverty" [DM, pp. 229-233]

9) Mon. July 12. Transfer. Strategies and tactics for facilitating thinking. Classroom activities to foster critical thinking. Relationships between critical and creative thinking. Multiple intelligences; dynamic view of intelligence. Mediation and metacognition. Thinking styles.

Proposal for Final Paper Due

Readings: Shari Tishman et al., pp. 155-184 ("Teaching for Transfer" and "Teaching for Transfer: Pictures of Practice");  
Arthur Costa, "Teaching For, Of, and About Thinking" [DM, pp. 354-358];  
David Perkins and Gavriel Salomon, "Teaching for Transfer" [DM, pp. 370-378];  
Barry K. Beyer, "Practical Strategies for Direct Instruction in Thinking Skills" [DM, pp. 393-400]  
Gerard J. Puccio and Mary C. Murdock, "Creative Thinking: An Essential Life Skill" [DM, pp. 67-71];  
Donald J. Treffinger and Scott G. Isaksen, "Teaching for Creative Learning and Problem Solving" [DM, pp. 442-445];  
Armando Lozano, "A Survey of Thinking and Learning Styles" [DM, pp. 192-196];  
Robert J. Sternberg, "Thinking Styles" [DM, pp. 197-201];  
David G. Lazear, "Teaching For, With, and About Multiple Intelligences" [DM, pp. 202-210]

10) Tues. July 13. Assessing the development of critical thinking. Criteria development and authentic assessment.

Readings: Elliott Asp, "To Think or Not to Think: Thinking as Measured on State and National Assessments" [DM, pp. 497-510];  
Monty Neill, "State Exams Flunk Test of Quality Thinking" [DM, pp. 511-516];  
Arthur L. Costa and Bena Kallick, "Building a System for Assessing Thinking" [DM, pp. 517-524];

Robert Stone, “How Teachers Can Assess the Thinking Skills They Are Teaching” [DM, pp. 525-527];  
Kay Burke, “Performances to Assess Standards and Intellectual Growth [DM, pp. 528-532];  
Barry K. Beyer, “A Format for Assessing Thinking Skills [DM, pp. 533-540] ;  
Alec Fisher, “Assessing Thinking Skills” [DM, pp. 541-545]

11) Wed. July 13. The thinking classroom. The thinking school. The thinking organization. The thinking person. Activities to promote higher-level cognitive strategies.

Third Reflection Paper Due.

Readings: Shari Tishman et al., pp. 185-199 (“Pulling It All Together”);  
Barry K. Beyer, “Putting It All Together to Improve Student Thinking” [DM, pp. 417-424];  
David S. Martin and Nicholas M. Michelli, “Preparing Teachers of Thinking” [DM, pp. 111-117];  
Laura Lipton and Bruce Wellman, “From Staff Development to Professional Development: Supporting Thoughtful Adults for Thinking Schools” [DM, pp. 118-122]

12) Thurs. July 14. Synthesis and glimpses ahead. Specific actions to take to ensure the survival of critical thinking in the school context. Research results and their implications. Presentation of in-class learning experiences by teams. Sharing and discussing the manifesto’s.

Manifesto Due.

Readings: Barry K. Beyer, “What Research Says about Teaching Thinking Skills” [DM, pp. 275-282];  
David S. Martin, “For Administrators: Keeping the Focus” [DM, pp. 123-125]  
David S. Martin, Results of research on effects of Thinking Skill Programs on various populations—excerpts handout.  
Reuven Feuerstein, “Instrumental Enrichment”—excerpts handout.

FINAL PAPER DUE FRIDAY, JULY 15 by 2pm in Department of Curriculum and Instruction Office, 2<sup>nd</sup> floor, Wheatley Hall.

GRADING PLAN FOR CrCrTh 601, Summer 2011

Participation and Attendance 100 points

Reflection Papers, 1,2,3 (each)

Use of concepts 40

Reflectivity 40

Writing 20

100

Team Presentation

Creativity 50

Questioning 50

Organization 50

Cohesion 50

200

Manifesto

Organization 60

Relevance 60

Clarity 60

Writing 20

200

Final Paper

Organization 40

Use of concepts  
100

Detail 100

Writing 40

References 20

300

Total: 1100

A 1050-1100

A- 1025-1049

B+ 1000-1024

B 975-999

B- 950-974

C+ 925-949

Etc.