Course Focus
In the current age of accountability, developing an appreciation and understanding of the complexities of the design, evaluation and interpretation of educational assessment seems paramount. In this graduate seminar we will draw on contemporary research papers and multimedia resources to examine, critique, discuss and evaluate current theory, practice, and instruments associated with assessment systems used to evaluate learning in science. Some of the major topics discussed will include: large-scale assessment in mathematics, history, and science, classroom assessment in mathematics and science, cognition and the design of educational assessments, the development of tasks, the interpretation of outcomes, tradeoffs in assessment design, and contemporary use of educational assessments. Multimedia resources will draw from an extensive resource developed in association with the text, “Knowing What Students Know” (Pellegrino, Chudowsky, & Glaser, 2001) and will include classroom video excerpts, large-scale assessments, classroom assessment systems, and expert interviews with individuals such as Jim Pellegrino, Bob Mislevy, Mark Wilson and Jim Minstrell. Course assignments will include weekly readings, regular review of multimedia material and reflective papers. The final class project will include critique and some redesign of assessment items on a topic of the individual’s choosing.

Course Requirements

Expectations
This 3-credit course is organized as a seminar with an emphasis on in-class and reflective dialogue of weekly materials by all attendees. The course will emphasize a forum for supportive, productive, and critical inquiry. Students are expected to attend all class sessions, to complete readings or material review prior to the class discussion, and to participate actively in the design and execution of course activities. Students are expected to inform the instructors in advance of absences. The critical review of course materials is an important component of the course. As an advanced graduate level course, the reading load will be substantial. It is expected that students will come to class willing to share their understandings in order to contribute to the learning of all class members.
Grading Policy and Assignment Descriptions

Your grade in the class will be determined by your participation in the following activities:

- **Class Participation, Leadership, Dialogue** 10
- **NPR Review and Discussion** 20
- **Reflection Papers (2 at 20 each)** 40
- **Final Reflective Paper** 30

/100%

**Class Participation, Leadership, Dialogue**

Class members will rotate responsibility for leadership in discussion of papers and materials. The leader will post discussions questions electronically to the group by **5pm on Friday** prior to the class discussion of the readings or materials. During class, the leader will lead portions of the class discussion and activities related to these readings and identify the main issues, strengths, and weaknesses, and synthesize salient ideas from class discussions. Students not in charge of leading the discussion should thoroughly read the assignments, prepare answers to the questions posed, and participate fully in the discussion and the activities proposed by the leader.

**NPR Review and Discussion**

Each student will select an assessment project, curriculum or document from the list below and write a review that will summarize the most important features, opportunities, and challenges of the project. The presentation should be given in the form of a “National Public Radio Book Review” which consists of a text that is read in no more than 2.5 minutes (for an example see CTools website or: [http://www.npr.org/templates/story/story.php?storyId=4775652](http://www.npr.org/templates/story/story.php?storyId=4775652)). A one page handout is expected to accompany the review. Students are advised to talk to the instructors about their project choice and review piece at least one week before the due date. After presenting the radio review, students are expected to answer questions regarding their project.

**Assessment Projects**
- Balanced Assessment
- BEAR
- Developmental Assessment Resource for Teachers (DART)
- FACETS
- FOSS
- NBPTS
- Strategic Teaching and Evaluation of Progress (STEPM)

**Curriculum Projects**
- Cognitively Guided Instruction (CGI)
- Connected Math
- Everyday Math
- Jasper - Working Smart
- Math Trailblazers
- Middle School Math Through Applications Project (MMAP)

**Assessment Documents**
Reflection Papers
Reflection papers consist of approximately 5 single-spaced pages of thoughtful analysis, original thinking, and literature-grounded critique. All papers are due by 5pm on the due date. Papers will address a common theme although original work is essential.

Grading of reflection papers will be as follows:
Original thinking 7 points
Selection and synthesis of relevant literature to ground arguments 7 points
Writing style, professional presentation (e.g. APA standard bibliography) 6 points
Point total 20 points

Paper 1: Cognitive analysis of assessment tasks. Using Baxter and Glaser’s framework for analyzing the cognitive demands of assessment tasks, analyze two tasks from a current assessment project. In addition to the cognitive analysis, discuss other relevant details related to task context, audience, and (if desired) task analysis. Data collection from individuals (e.g., children or other graduate students) using this task may also be used to enhance the discussion.

Possible Assessment Projects
• Illinois Standards Achievement Test (ISAT)
• National Assessment of Educational Progress (NAEP)
• Illinois Snapshot of Early Literacy (ISEL)
• Michigan Educational Assessment Project (MEAP)
• Native American Mathematics Education (NAME)
• PISA
• TIMSS
• QUASAR Cognitive Assessment Instrument
• Other short answer or performance tasks with some input from the instructors.

Paper 2: Position Paper. Provide your own perspective, backed with current literature, on the debate between the benefits of performance assessment versus current style large-scale assessment. How do you respond to the literature that is critical to your review? Based on your perspective, what recommendations do you suggest for testing of your focal knowledge, and why?

Final Paper
The CTools site contains a link to a new National Science Foundation “grand challenge” proposal competition called Discovery Research K-12. Provide your own plan for teacher or student assessment that will meet this grand challenge. Provide support for your views from current research literature. Provide sample prototypes of your assessment tasks, coding rubric/analysis plan and expected outcomes.

A three-page outline or brief draft of sections of the final paper is due on November 8. The final paper is due by 5 pm on December 13. All final papers will be presented in class on December 13th.

Required Readings and Schedule
Additional readings will be available on the CTools website (marked with an * in the list below) or available for photocopies from Sharon Laski (Suite 1600).

### Schedule

#### Week 1  
**September 6**  
**What is assessment? What is testing?**

Discussion of class syllabus, introductory activity, and preliminary discussion of ideas.

#### Readings

3. Optional: KWSK Preface and Executive Summary

#### Week 2  
**September 13**  
**What are the components of assessment?**

#### Readings

4. KWSK chapters 1 and 2: Rethinking the foundations of assessment; the nature of assessment and reasoning from evidence

#### Week 3  
**September 20**  
**What are the foundations of assessment?**

#### Readings

6. KWSK chapter 3: Advances in the sciences of thinking and learning

#### Week 4  
**September 27**  
**Formative Assessment**

#### Readings


Week 5 October 4  What is classroom assessment?
In class--Review of CGI second grade video as an example of classroom assessment

Readings


Assignment
Reflection Paper 1 due

Week 6 October 11  What are the big ideas in measurement and validity?

Readings
13. KWSK chapter 4: Contributions of measurement and statistical modeling to assessment


Assignment
NPR Reports

Week 7 October 18  Looking Deeply at Standardized Tests, I

Readings


Assignment
NPR Reports

Week 8 October 25  Looking Deeply at Standardized Tests, II

Readings


**Assignment**

NPR Reports

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**Week 9**  November 1  **Test Coherence**

**Readings**

19. KWSK chapter 5: Implications of the new foundations for assessment design


**Assignment**

Reflection Paper 2 Due

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**Week 10**  November 8  **Evaluation of Learning Progressions**

**Readings**


**Assignment**

Turn in Final Paper Outline
Week 11  
November 15  
Assessment of Teaching and Teachers

Readings


Assignment
Submit questions for Panel

Week 12  
November 29  
*Appropriate Use:* Panel with Assessment Experts in the content areas.

Readings will be assigned prior to the meeting.

Assignment
Brainstorm questions for the panel.

Week 13  
December 6  
*Implications and recommendations for research*

Readings

27. KWSK Chapter 7: Information technologies: Opportunities for advancing educational assessment

28. KWSK Chapter 8: Implications and recommendations for research, policy and practice


Week 14  
December 13  
*Final Class Presentations and Discussion*

In class: presentation of student final papers

Assignment
Final paper due