A New University for the 21st Century

Innovation. Opportunity. Purpose. Careers. That’s what the University of Texas Rio Grande Valley is about. With campuses throughout the Valley, UTRGV empowers successful futures, enhances daily life, and lets our region shine as a global innovator in higher education, bilingual education, health education, biomedical research, and emerging technology that inspires positive change.

Vision for UTRGV

The vision for UTRGV is to create America’s next great major university right here in the Rio Grande Valley. Achieving this vision will take first-class learning experiences, faculty, opportunities for research and innovation, and technological resources. But above all, it will take a first class of entering freshmen who are driven to succeed and who want to be that new kind of professional and leader that today’s world needs.

A University That Serves and Learns in the Community

Whether you’re an entrepreneur looking for help with your business plan, a family wanting to attend a cultural event, a student seeking an experiential learning opportunity or a researcher looking for a community-based partnership, discover the many ways UTRGV engages with the community.

As an anchor institution we build on the strengths of the Rio Grande Valley. We seek collaborative partnerships that not only enhance the academic and research mission of the university but also build our regional communities.
EDFR 6300.90L: Research Methods in Education
Fall 2017
DEPARTMENT OF TEACHING AND LEARNING
COLLEGE OF EDUCATION AND P-16 INTEGRATION

Instructor: MingTsang Pierre Lu, Ph.D.
Telephone: (956) 882-7674
Email: MingTsang.Lu@utrgv.edu or Pierre.Lu@gmail.com (Preferred method of contact)

Office location: Main 2.308
Office hours: Monday: 8am-12pm; Tuesday: 8am-12pm;
Wednesday, Thursday, & Friday: by appointment
By appointment: If you’d like to see me (in person or online) but the hours listed above are not
good for you, you may email me to set an appointment.

CLASS INFORMATION
Class Time: WWW
   Web Conference: Mondays 7:00pm – 9:30pm.
   (Suggested time for study: Tuesday, Thursday, & Saturday 6:00pm – 9:00pm.)

Class Location: Fully online.
   Synchronous Web Conference sessions take place in Blackboard Collaborate

COURSE DESCRIPTION
CRN: 25515*

Research Methods in Education (3)
   A survey of quantitative, qualitative, and mixed methods research designed to introduce
   students to educational research. This course will include research design, literature review,
   critiquing research, and action research.

COURSE TEXTS
Textbooks:
      Applications. (11th ed.). Pearson. (ER) (Required)
      (Required)
      Association. (APA) (Required)
Additional Texts:
AERA standards (Available online, through www.aera.net website and SAGE Education database in Education Researcher journal)

Recommended Textbooks:

Other Useful Texts:
COURSE BACKGROUND INTRODUCTION

This course introduces the research process and focuses on the various quantitative, qualitative, and mixed methods inquiry strategies including the epistemological differences between these approaches. Attention is given to formulating problem statements, posing research questions and hypotheses, and devising appropriate research designs.

All scientists (including educational scientists, natural scientists, social scientists, and educators) are either practitioners or consumers of research. It is important that we know and understand the elements of research in order to be able to evaluate critically and/or conduct research to enhance one’s professional skills, and advance the knowledge of the field. This course will provide us with a basic framework for understanding and evaluating education research studies. It will also provide knowledge of the various types of research designs used in educational research and the procedures for conducting research studies.

This course examines the context, history, and philosophies of educational research and their relationship to the theory-method decisions in designing and carrying out empirical research. The standards for reporting empirical research in education (cf. *APA & AERA*) and the debates about what counts as scientific research in education frame the course explorations of research methodology. We will explore different research approaches available for education research.


COURSE OBJECTIVES

The overall objective of this course is to introduce you to the fundamental procedures and issues related to quantitative and qualitative research.

At the completion of this course, the learner will be able to:

- Identify the foundational research concepts and central ideas of the quantitative and qualitative approaches to scientific inquiries;
- Identify the appropriate research methods for qualitative or quantitative inquiries.

Specific objectives for the course include:

COMMUNICATION

When communicating, please include in the subject line: EDFR 6300. It also helps to state your name at the end of an email. It is recommended that the emails sent to me be specific and succinct.

Imagine if I receive an email without any subject and the content merely states ‘Where is the homework?’, then I will not know at all whom that person is talking to, who that person may be, what it is referring to, which homework in what course in what module may be…etc.

I know that email sent to a professor looks like a practical joke, but it is not. (FYI: the scenario above in fact happened… a couple of times in the past.)

Again, please include in the subject line: EDFR 6300 in all communications!
MAJOR ASSIGNMENTS

There are seven major assignments: 1. Research Project (Final Paper) (20 pts), 2. Homework Assignments (14 pts), 3. Quizzes (15 pts), 4. Examinations (25 pts), 5. Discussion Board Contributions & Participation (20 pts), 6. Learning Presentation (5 pts), and 7. Initial Posts (1 pt). In addition to the major assignments, there is the optional 8. Publication/Conference for extra credit.

1. Research Project (20%)

The Research Project (Final Paper) should include the following elements: (1) Topic (2) Author (3) Author Affiliation and Contact Information (4) Abstract (5) Keyword(s) (6) Introduction (7) Literature Review (8) Method *(9) Results *(10) Discussion *(11) Conclusion, and (12) References. Note (13) Appendix and (14) Author Notes are optional.

*Note: Since data collection and analysis are not required in this course, therefore *(9) is Anticipated Results, *(10) is Anticipated Discussion, and *(11) is Probable Conclusion. Yet, you may still collect and analyze data to report in (9) Results, (10) Discussion, and (11) Conclusion.

As a research methods course, the Research Project (Final Paper) will count for 20 points. The grading rubric for the Final Paper is posted on our course Blackboard. Though we will be talking more about each element of the Final Paper in class, for your information, the statement of research problem and the research literature synthesis are:

Statement of Research Problem

Students will choose a topic of interest and use this topic as an anchor for selecting and analyzing research articles and for doing the literature analysis. The research topic chosen will be narrowed down (or expanded) to reformulate into a problem for research. The research problem will include the context and need for studying the topic, the participants to be studied, and the potential research design that would address the problem. The statement of the problem will draw on at least four peer-reviewed research articles (See AERA empirical standard I).

Research Literature Synthesis

As part of the course students will read peer-reviewed research articles and will analyze the articles applying the knowledge gained from class lectures, discussions, and textbook reading. The analyses will consist of investigating the similarities and differences in ways researchers carried out and reported the research studies on a topic of interest to the student. The final research literature synthesis will consist of the synthesis of literature based on the analyses carried out throughout the course. The articles must be from at least ten different peer reviewed journal articles and should include different kinds of research methodologies.

Note: To ascertain your writing progress, you will be asked to hand in your Research Project draft (Final Paper Draft) (containing at least the statement of research problem or the research literature synthesis, or both) in the middle of the semester, on October 16th, 2017. You may include as many sections of a research paper as you can. This draft is required but will not be graded. You will only be provided with some feedback from the professor for your improvement.

Note the University’s policy at the end of the syllabus: SCHOLASTIC DISHONESTY.

The Research Project is due on December 4, 2017.
2. Homework Assignments (14%)  
There are 7 homework assignments, labeled HW01, HW02, HW03, HW04, HW05, WH06, and HW07. Each HW is worth 2 points, with a total of 14 points. All homework assignments should be submitted on Blackboard under the HW link in the module folder. For example, HW01 is in Module 3 Folder on Blackboard. Click on the link to see/download the HW file. It is also where we upload our completed file (under the same link). You may also type in answers. Either way, remember to click the ‘Submit’ button at the end.

Sample assignments might include work on developing a research question, carrying out a mini-observation or interview, conducting a statistical analysis or its interpretation, completing assignments from the textbook, or those developed by the professor.

No late assignments will be accepted. There is no exception to this policy.

Article Analysis
One of the assignments is an article analysis. Students will select an empirical research article and will analyze the article focusing on the research design and the relationships between theory, methods, and claims. Analysis will be conducted to identify research questions, theoretical framing, research design and methods for participant selection, data collection and data analysis. By analyzing research methodology as reported in the article, the students will evaluate the strengths and weaknesses of the research report and the claims the author(s) make. AERA research reporting standards should be used in evaluating the research article.

3. Quizzes (15%)
Quizzes will be implemented frequently throughout the semester to monitor our progress and learning. There are 15 quizzes in total: a syllabus quiz starting in the first week, 3 Mock Exam quizzes, and 11 quizzes in different modules. As each quiz is worth 1 point, there will be 15 points in total. All quizzes are multiple-choice questions, timed for 90 minutes. The Syllabus Quiz can be taken unlimited times until you have reached 90% or higher correct answers. The 11 quizzes have 5 to 20 questions each. The 3 Mock Exam quizzes have 50 multiple-choice questions each and will help us get familiar with the Midterm Examination and the Final Examination.

4. Examinations (25%)
There will be two examinations, the Midterm Examination and the Final Examination, evaluating your learning outcome throughout the semester. The examinations will take a total of 25% of your final grade. They will include questions related to all the materials, educational research topics, and research concepts covered in the course. Both Examinations are multiple-choice questions, timed for 90 minutes.

The Midterm Examination will count for 10% of the total grade and is scheduled on October 16th, 2017. The Final Examination will count for 15% of the total grade and is scheduled on December 11th, 2017.

Note the University’s policy at the end of the syllabus: SCHOLASTIC DISHONESTY.
5. Discussion Board Contributions & Participation (20%)

You are expected to participate in appropriate ways. Contributions and participation will be in the form of discussions in designated online discussion board/forum as well as through writing responses. Though attending our synchronous online Web-conference sessions is not required (i.e., I do not take attendance), you should find it helpful to attend or listen to our Web-Conferences when we discuss certain course content/materials. We will record all our online Web-Conference sessions. If you cannot make any of the online synchronous Web-Conference sessions, or if you’d like to review some of the course concepts/materials again, remember to listen to, or review, the recordings afterwards.

Appropriate participation and contributions include, for example, sharing your knowledge and insights on topics being discussed, answering the instructor’s and classmates’ questions, posing questions, providing constructive critiques and feedback to the classmates and the professor, posting comments on the course blackboard, and taking responsibility for your own learning. To get the full point, you should post your answers to the questions/probes of the module and respond to at least two other posts. You should contribute/participate in all the online discussions when we have Discussion Forum assignments in those modules in order to get the full 20 points.

6. Learning Presentation (5%)

You will present your research project and your learning experience throughout the semester in a 10-15 minute PowerPoint presentation. The presentation will consist of two parts. The first part will include a presentation of the research project, focusing on the literature review, research method, and anticipated findings as contributions to the field/topic. The second part will consist of 3-5 key concepts from the content of the class that you identify and learn that can be explained to the class. The PowerPoint slides should be uploaded to Blackboard.

7. Initial Posts (1%)

There are two initial posts on the Discussion Board, with each counted for 0.5 pts. Follow the instructions in the first module.

8. Publication/ Conference (Extra Credit)

To encourage your research-related academic involvement and excellence, any research-related paper from the course published in an academic or professional journal or academic conference proceedings, or presented at an academic or professional conference/convention will be counted for extra credit towards the course total grade. Academic/professional conferences can be local, state, regional, national, or international. You may collaborate with other classmates. You may collaborate with the professor if the project is of high value/quality. You are highly encouraged to plan conference submissions and attendance early and to submit academic papers for possible journal publications.
### EVALUATION AND GRADING

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<th>Component</th>
<th>Points</th>
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<tr>
<td>Initial Posts</td>
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<tr>
<td>Homework Assignments</td>
<td>14 pts</td>
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<tr>
<td>Research Project</td>
<td>20 pts</td>
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<tr>
<td>Quizzes</td>
<td>15 pts</td>
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<td>Mid-term exam</td>
<td>10 pts</td>
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<tr>
<td>Final exam</td>
<td>15 pts</td>
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<tr>
<td>Discussion Board Participation</td>
<td>20 pts</td>
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<tr>
<td>Research/ Learning Presentation</td>
<td>5 pts</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100 pts</strong></td>
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- The course requires extensive reading and writing. It should be taken within the first nine units of the master’s or doctoral program.
- No late assignments will be accepted. There is no exception to this policy.

**Grading**

Your grade will be based on all your coursework, including your written work, your presentation, the quizzes, and your participation...etc. Grading will be fair. If you see that your grade is not good for an individual assignment, please talk to the instructor. Do not wait until the end of the course to talk about how you might improve your grade.

**Course grades:**

- **A** Outstanding scholarship. Performance that significantly exceeds the requirements and qualitative expectations of the course. Superior mastery of subject matter. Initiative and self-direction leading to significant study and related activity beyond course requirements.
- **B** Good Scholarship. Performance that fully meets all the requirements and qualitative expectations of the course. Solid mastery of subject matter.
- **C** Marginal Scholarship. Performance that barely meets the requirements and qualitative expectations of the course. Marginal mastery of subject matter. Does not meet the expectations of graduate course work.

**Grade Breakdown:**

- Course Participation                           | 20 points |
- Examinations                                    | 25 points |
- Homework Assignments & Quizzes                  | 29 points |
- Research Presentation                           | 5 points  |
- Research Project                                | 20 points |
- Initial Posts                                   | 1 point   |

**100 points total**
Grading Scale:
98 - 100  A
93 - 97.9  A
90 - 92.9  A
87 - 89.9  B
83 - 86.9  B
80 - 82.9  B
77 - 79.9  C
73 - 76.9  C
70 - 72.9  C
60 - 69.9  D
< 60  F

UTRGV Policy Statements
The UTRGV disability accommodation, mandatory course evaluation statement and sexual harassment statement are required on all syllabi. Additional policy statements are included here, such as those covering attendance, academic integrity, and course drop policies.

STUDENTS WITH DISABILITIES:
If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time.

Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at ability@utrgv.edu.

Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at ability@utrgv.edu.

MANDATORY COURSE EVALUATION PERIOD:
Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available:

Oct 5 – Oct 12 for Module 1 courses
Dec 1 – Dec 7 for Module 2 courses
Nov 18 – Dec 8 for full fall semester courses

ATTENDANCE:
Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.
SCHOLASTIC INTEGRITY:
As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). **All scholastic dishonesty incidents will be reported to the Dean of Students.**

SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:
In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at [www.utrgv.edu/equity](http://www.utrgv.edu/equity), including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

COURSE DROPS:
According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.
### Grading Rubric: Key Assessment for EDFR 6300

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Activities</th>
<th>Points</th>
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</table>
| **Effectiveness of the Introduction** | • The focus of the topic is clear and explicit.  
• The reader is aware of the problem or topic to be examined.  
• The introduction is relevant and provides an appropriate overview of the scope and general structure of the paper. | 10 |
| **Currency and relevance of the literature cited** | • Cites studies that are current or relevant.  
• Identifies trends and existing patterns of studies or the field.  
• Identifies strengths and weaknesses in the literature.  
• Notes gaps in the literature.  
• Quotes sources of key terms or concepts. | 20 |
| **Analysis of individual articles and demonstrated knowledge of the topic** | • Demonstrates evidence of knowledge of the topic and of the significance of the topic to the field of education.  
• Demonstrates how authors answered the research questions.  
• Applies knowledge of different research methods and their purposes to article analysis.  
• Compares research methodologies and research designs.  
• Synthesizes how the literature contributes to the field of education. | 30 |
| **Effectiveness of the Conclusion** | • Describes what the writer found in the literature.  
• Identifies gaps, voids or conflicts in the related literature.  
• Makes connections to class content including: theories, methods, techniques, rationales, and research designs.  
• Refers back to the original focus of the topic.  
• Evaluates the literature and provides recommendations for the reader.  
• Describes lessons learned (Personal reflection is optional).  
• Provides closure for the reader. | 10 |
| **Mechanics and Grammar** | • Uses correct grammar, punctuation and spelling.  
• Writes in complete sentences.  
• Uses correct paragraph breaks. | 5 |
| **APA format** | • Referenced citations are in the correct format.  
• Statements are cited in the paper as well as in the *References*.  
• Use of quotes are appropriate and adequate.  
• APA guidelines are followed throughout the paper. | 10 |
| **Coherence and flow of the logic or path of the argument** | • The focus of the topic can be followed throughout the paper.  
• Appropriate words are used and their meanings are clear.  
• Idioms and colloquialisms are avoided.  
• A variety of sentence structures are used.  
• Paragraphs are connected, cohesive, and coherent.  
• Transitions are used to demonstrate the flow of the logic.  
• Writing is crisp and clear.  
• The active voice is used throughout the paper. | 15 |

**Total Points:** 100
### Action Plans: (*Online Synchronous Web-conference*)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>08/28*</td>
<td>First class: Introduction to Educational Research; Overview; Main Concepts</td>
<td>Note01/ Blackboard Tutorials; Blackboard Learn. Syllabus: <strong>Syllabus Quiz</strong>; Obtain textbooks; Initial Posts; Email Dr. Lu: “read”</td>
</tr>
<tr>
<td>2</td>
<td>09/04</td>
<td>Labor Day holiday- No Class Introduction to Research Types of Research</td>
<td>Note02/ Read: ER Ch.1; Cohen et al. Ch.1 Think about your Research Project; <strong>Post in Discussion 2; Quiz 1</strong>; Self-evaluate</td>
</tr>
<tr>
<td>3</td>
<td>09/11*</td>
<td>Defining a Research Topic; Preparing a Research Report; Ethics and Standards; Writing Reviews: An Overview</td>
<td>Note03/ ER Ch.2; Handouts (AERA); ER Ch.21; Lit.Ch.1, Ch.2; <strong>Quiz 2-1; Quiz 2-2; HW01; Post in Discussion 3</strong></td>
</tr>
<tr>
<td>4</td>
<td>09/18</td>
<td>Literature Review Research Plan</td>
<td>Note04/ ER Ch.3, Ch.4; <strong>HW02</strong>; Online databases; Lit.Ch.3, Ch.4; <strong>Quiz 3</strong>; Post in Discussion 4; <strong>Mock Exam01</strong></td>
</tr>
<tr>
<td>5</td>
<td>09/25*</td>
<td>Sampling Selecting Measuring Instruments</td>
<td>Note 05/ ER Ch.5, Ch.6; Lit.Ch.5, Ch.6; <strong>Post in Discussion 5</strong>; <strong>HW03; Quiz 4-1; Quiz 4-2</strong></td>
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<tr>
<td>6</td>
<td>10/02</td>
<td>Survey Research; Correlational Research; Causal-Comparative Research</td>
<td>Note 06/ ER Ch.7, Ch.8, Ch.9; Lit.Ch.7, Ch.8, Ch.9; <strong>Quiz 5; Post in Discussion 6</strong></td>
</tr>
<tr>
<td>7</td>
<td>10/09*</td>
<td>Descriptive Statistics Library Search &amp; Online Resources</td>
<td>Note07/ Prepare for Midterm Exam; <strong>Quiz 6</strong>; ER Ch.17; Lit.Ch.10-12; <strong>HW04</strong>; Handouts; Post in Discussion 7; <strong>Mock Exam02</strong></td>
</tr>
<tr>
<td>8</td>
<td>10/16</td>
<td><strong>Midterm Exam</strong></td>
<td>Note08/ Midterm survey; <em>Final Paper Draft due</em>; APA</td>
</tr>
<tr>
<td>9</td>
<td>10/23*</td>
<td>Experimental Research Single-Subject Experimental Research</td>
<td>Note09/ ER Ch.10, Ch.11; Lit.Ch.13, Ch.14; <strong>Post in Discussion 9; Quiz 7</strong></td>
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<td>10</td>
<td>10/30</td>
<td>Inferential Statistics</td>
<td>Note10/ ER Ch.18; Handouts; <strong>Quiz 8</strong>; Final Paper &amp; Presentation Instruction; <strong>HW05</strong></td>
</tr>
<tr>
<td>11</td>
<td>11/06*</td>
<td>Narrative Research; Ethnographic Research; Case Study Research</td>
<td>Note11/ ER Ch.12, Ch.13, Ch14; <strong>Quiz 9</strong></td>
</tr>
<tr>
<td>12</td>
<td>11/13</td>
<td>Qualitative Research; Qualitative Data Collection and Analysis</td>
<td>Note12/ ER Ch.19, Ch.20; <strong>HW06; Quiz 10</strong></td>
</tr>
<tr>
<td>13</td>
<td>11/20*</td>
<td>Mixed Methods Research; Action Research; Thanksgiving Week</td>
<td>Note13/ ER Ch.15, Ch.16; <strong>Post in Discussion 13; Quiz 11; Mock Exam03</strong></td>
</tr>
<tr>
<td>14</td>
<td>11/27</td>
<td>Wrap-up; Academic writing Evaluating Research Reports</td>
<td>Note14/ ER Ch.22; <strong>HW07</strong>; Prepare for Final Exam; Prepare for Final Paper &amp; Presentation</td>
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<td>15</td>
<td>12/04*</td>
<td>Last class: <strong>Research Project Presentation</strong></td>
<td>Note15/ <em>Final Paper Due</em>; <strong>Post in Discussion 15</strong></td>
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<tr>
<td>16</td>
<td>12/11</td>
<td><strong>Final Exam</strong></td>
<td>Note16</td>
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