

The University of Oklahoma

College of Continuing Education

Advanced Programs – Course Syllabus

Course Title:

Theory and Research in Education

Course Number:

ILAC 5143-222

Course Description:

This course serves an introduction to the processes and products of educational research such as stages in designing a study, research methods, and identification of the components of a research-based article. This course also serves to develop critical consumers of educational research.

Class Dates, Location and Hours:

Dates: March 14 – 19, 2017

Location: Stuttgart, Germany. See site director for classroom location.

Hours: Tuesday - Friday 6:00-9:30 pm; Saturday and Sunday 8:30 a.m.-4:30 p.m.

Last day to enroll or drop without penalty: February 13, 2017

Site Director:

Email: apstuttgart@ou.edu. DSN: 431-3304 or CIV 07031-15-2580.

Professor Contact Information:

Course Professor: Timothy A. Laubach, Ph.D.

Mailing Address: 820 Van Vleet Oval, Rm 114
Norman, OK 73019

Telephone Number: (405) 325-1498

E-mail Address: laubach@ou.edu

Professor availability: The professor will be available via e-mail to students before and after the in-class sessions. On-site office hours are half an hour before and after each class session, by appointment.

Textbook(s) and Instructional Materials:

Student materials are available at the OU Follett Bookstore located at 1185 Asp Avenue; Norman, OK, and can be ordered online, by phone, by email, or by fax. Ordering online at <http://www.bkstr.com/oklahomastore/home> is strongly recommended – students can track the status of their order within 48 hours. If an order has not been shipped within three days, students can contact the Follett textbook manager by phone (405) 325-3511, (800) 522-0772 (toll-free) or email 0831mgr@fheg.follett.com. Phone orders (ask for the textbook manager and identify yourself as an Advanced Programs student) can be placed 8 a.m. to 6 p.m. Monday through Thursday; 8 a.m. to 5 p.m. on Friday; 10 a.m. to 4p.m. on Saturday (CST). Summer hours: 9 a.m. to 5 p.m. Monday through Friday (CST). Fax orders can be placed 24 hours a day at (405) 325-7770. Text prices are available online.

1. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage. ISBN 9781452226101.
2. Materials posted on the OU Canvas learning management system: Access Canvas at <https://oklahoma.instructure.com/>, enter your OU NetID and password, and select course to access material. Please contact your local Site Director if you require assistance.

Note: Follett is the Advanced Programs contractual textbook provider. Should text changes become necessary after publication of the course syllabus, Advanced Programs will facilitate text returns/refunds only for texts purchased through Follett.

Course Objectives:

- Demonstrate fluency in identifying essential elements of a research article/report
- Demonstrate the ability to use on-line databases when conducting research (OU Libraries, Cabell's Directory, Google Scholar)
- Demonstrate an understanding of the procedures necessary to evaluate existing research
- Demonstrate understanding of ethical issues that arise in all stages of research
- Distinguish between four major research designs/methodologies (quantitative, qualitative, mixed methods, and action research) and understand the stages and processes used in each method

Course Outline:

Prior to In-Person Class Meeting: February 14-March 13, 2017 (all times are Stuttgart time; 6 hours ahead of Norman, Oklahoma)

Date	Assignment
<p>Week 1 February 14-19</p>	<p>Introduction Order textbook and familiarize yourself with the course website. Complete Doodle Poll for Google Hangout (or other platform TBD) by Wednesday, February 15, 11:59 PM. Participate in Google Hangout (or other platform TBD) on Sunday, February 19, time TBD.</p>
<p>Week 2 February 20-26</p>	<p>Read and annotate Lee, Kinzie, & Whittaker (2012) article, complete data organizer, and post to course website by Saturday, February 25, 11:59 PM. Participate in Google Hangout (or other platform TBD) on Sunday, February 26, time TBD.</p>
<p>Week 3 February 27-March 5</p>	<p>Read and annotate Piccolo et al. (2008) article, complete data organizer, and post to course website by Saturday, March 4, 11:59 PM. Participate in Google Hangout (or other platform TBD) on Sunday, March 5, time TBD.</p>
<p>Week 4 March 6-12</p>	<p>Read and annotate Russell & Curtis (2013) article, complete data organizer, and post to course website Dropbox by Saturday, March 11, 11:59 PM. Submit Response Essay to course website by Sunday, March 12, 11:59 PM.</p>

During In-Person Class Meetings: March 14-March 19, 2017 (all times are Stuttgart time; 6 hours ahead of Norman, Oklahoma)

Date	Readings/Activities	Assignment Due Date
<p>Class 1 March 14 Tuesday</p>	<p>Re-introductions and Syllabus Composite Data Organizer Analysis Online Database Workshop</p>	<p>In-class writing</p>
<p>Class 2 March 15 Wednesday</p>	<p>Creswell Chapter 8 (Quantitative Methods) discussion</p>	<p>In-class writing</p>

Date	Readings/Activities	Assignment Due Date
Class 3 March 16 Thursday	Creswell Chapter 9 (Qualitative Methods) discussion	In-class writing
Class 4 March 17 Friday	Creswell Chapter 10 (Mixed Methods) discussion Creswell Chapter 3 (Use of Theory) discussion	In-class writing
Class 5 March 18 Saturday	Creswell Chapters 5-7 (Designing Research) discussion Creswell Chapter (2008) (Action Research) discussion Action Research Field Experience Preparation Field Trip: Action Research Field Experience Action Research Field Experience Reflections and Presentations	In-class writing
Class 6 March 19 Sunday	Creswell Chapter 2 (Review of the Literature) Literature Review project discussion and development Individual work on Final Project Final thoughts/wrap-up	In-class writing

Following In-Person Class Meetings: March 20-April 9 (all times are Stuttgart time; 6 hours ahead of Norman, Oklahoma)

Date	Assignment
Week 6 March 20-26	Submit Literature Map to course website by Monday, March 20, 11:59 PM Submit Abstracts for Literature Review to course website by Sunday, March 26, 11:59 PM
Week 7 March 27-April 2	Incorporate instructor feedback from Literature Map and Abstracts in the Final Literature Review
Week 8 April 3-9	Submit Final Literature Review to course website by Sunday, April 9, 11:59 PM

Assignments, Grading and Due Dates:

Online Class Participation (Sunday, February 19, February 26, March 5, Time TBD)

You are expected to act professionally in both speech and action during the online portion of the course. This includes but is not limited to the following:

1. Coming to class on time
2. Staying for the entire class
3. Being attentive during class discussions
4. Respecting the comments and questions made by fellow students and instructor
5. Refraining from any behavior that disrupts the academic process.

Response Essay (Sunday, March 12, 11:59PM)

You are expected to synthesize the readings and experiences of the first four weeks of class. This assignment gives you the opportunity to thoughtfully and thoroughly prepare for the individual face-to-face class meetings. You should prepare a 900-1000 word paper (word processed, professional 12 point font, double spaced, 1 inch margins) and structure your response into the following categories:

- **Summary:** Complete a short summary of the major points of the readings and experiences.
- **Respond:** Discuss your thinking about the readings and experiences as you experienced them. That is, respond to the readings and experiences on a personal level. You may discuss how the readings and experiences relate to your own work (text-to-self response); how it relates to other professional readings you have done (text-to-text response); how the text relates to broader issues in education (text-to-world response); or a combination of two or more of these text responses.
- **Question:** Identify 4-5 questions that you are still asking yourself as a result of the readings and experiences. Explain why you are asking these questions. For example, you may have a content-based question (information in the readings that was not clear to you) or a practice-based question (how a process is carried out). Any question is valid as long as you can provide a justification for it.

It is the expectation that you will have completed all readings and the Response Essay prior to the beginning of the face-to-face portion of the class. Upload the Response Essay to the course website by **Sunday, March 12, 11:59PM.**

Class Participation (Ongoing)

You are expected to act professionally in both speech and action during the in-class portion of the course. This includes but is not limited to the following:

1. Coming to class on time
2. Staying for the entire class
3. Being attentive during class discussions
4. Willingly participating in group assignments
5. Respecting the comments and questions made by fellow students during both small and large group discussions
6. Refraining from any behavior that disrupts the academic process.

You will be expected to participate actively in each class session and prepare for each session by doing the assigned readings and activities.

In-Class Writing (March 14, 15, 16, 17, 18, and 19 by the end of each class session)

As part of each face-to-face class session, you are expected to complete an in-class writing task that directly relates to your experiences/understandings/reactions to that session. Class time will be provided to complete this assignment.

Action Research Project and Presentation

As a class, we will participate in an Action Research Field Experience by visiting a site in the local community. While working in pairs, you will observe your surroundings to design either a practical or a participatory action research project following the “Steps in Conducting an Action Research Study” by Creswell (2008). For the purposes of this course, you will complete Steps 1-7 of this 8-Step approach and present your plan to the class. **Due Class 5, Saturday, March 18.**

Literature Review Final Project

Select a topic of interest and importance. Your topic may be related to a question you have in education. Conduct a review of the literature on the topic using procedures outlined by Creswell (2014) and other authors provided in class.

Literature Map and Relevant Article Abstracts

Follow the steps outlined and example provided by Creswell (Chapter 2-Review of the Literature) to produce a **literature map**, which is a visual summary of the existing research related to your topic that has been conducted by others. The literature map presents an overview of the existing literature. The literature map will be prepared according to the checklist and rubric provided in class. **Upload to course website by Monday, March 20, 11:59 PM.**

Once you have identified existing literature, develop brief abstracts that comprise the review by following the steps outlined and examples provided by Creswell (Chapter 2-Review of the Literature). The abstracts

will be prepared according to the checklist and rubric provided in class. **Upload to course website by Sunday, March 26, 11:59 PM.**

Literature Review

You are expected to incorporate instructor feedback received from your Literature Map and Abstracts in your final Literature Review as well as follow the steps outlined by Creswell (Chapter 2-Review of the Literature) and examples provided in class. This final paper will be prepared according to the checklist and rubric provided in class. **Upload to course website by Sunday, April 9, 11:59 PM.**

Grading:

This is a letter-graded course: A, B, C, D, or F.

A = 313-281; B = 280-250; C = 249-218; D = 217-187; F = below 187

Assignment	Due Date	Points
Google Hangout (or other platform) Participation (5 points per online session)	Sunday, February 19, 26, March 5, TBD	15
Article Annotation and Data Organizer (10 points per article)	Saturday, February 25, March 4, March 11 by 11:59 PM	30
Response Essay	Sunday, March 12 by 11:59 PM	20
Class Participation (3 points per face-to-face session)	March 14-19	18
In-Class Writing (5 points per face-to-face class session)	March 14-19 by the end of each class session	30
Action Research Project and Presentation	Saturday, March 18	30
Literature Review Project Literature Map (20 points) Abstracts (50 points) Final Literature Review (100 points)	Monday, March 20 by 11:59 PM Sunday, March 26 by 11:59 PM Sunday, April 9 by 11:59 PM	170

Notice: Failure to meet assignment due dates could result in a grade of I (Incomplete) and may adversely impact Tuition Assistance and/or Financial Aid.

POLICIES AND NOTICES

Attendance/Grade Policy

Attendance and participation in interaction, individual assignments, group exercises, simulations, role playing, etc. are valuable aspects of any course because much of the learning comes from discussions in class with other students. It is expected that you attend all classes and be on time except for excused emergencies.

Excused absences are given for professor mandated activities or legally required activities such as emergencies or military assignments. It is the policy of the University to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays. Unavoidable personal emergencies, including (but not limited to) serious illness; delays in getting to class because of accidents, etc.; deaths and funerals, and hazardous road conditions will be excused.

If you are obtaining financial assistance (TA, STAP, FA, VA, Scholarship, etc.) to pay all or part of your tuition cost, you must follow your funding agency/institution's policy regarding "I" (Incomplete) grades unless the timeline is longer than what the University policy allows then you must adhere to the University policy. Students who receive Financial Aid must resolve/complete any "I" (Incomplete) grades by the end of the term or he/she may be placed on "financial aid probation." If the "I" grade is not resolved/completed by the end of the following term, the student's Financial Aid may be suspended making the student ineligible for further Financial Aid.

Students are responsible for meeting the guidelines of Tuition Assistance and Veterans Assistance. See the education counselor at your local education center for a complete description of your TA or VA requirements.

Academic Integrity and Student Conduct

Academic integrity means honesty and responsibility in scholarship. Academic assignments exist to help students learn; grades exist to show how fully this goal is attained. Therefore all work and all grades should result from the student's own understanding and effort.

Academic misconduct is any act which improperly affects the evaluation of a student's academic performance or achievement. Misconduct occurs when the student either knows or reasonably should know that the act constitutes misconduct. Academic misconduct includes: cheating and using unauthorized materials on examinations and other assignments; improper collaboration, submitting the same assignment for different classes (self-plagiarism); fabrication, forgery, alteration of documents, lying, etc...in order to obtain an academic advantage; assisting others in academic misconduct; attempting to commit academic misconduct; destruction of property, hacking, etc...; intimidation and interference with integrity process; and plagiarism. All students should review the Student's Guide to Academic Integrity at http://integrity.ou.edu/students_guide.html

Students and faculty each have responsibility for maintaining an appropriate learning environment. All students should review policies regarding student conduct at <http://studentconduct.ou.edu/>

Accommodation Statement

The University of Oklahoma is committed to making its activities as accessible as possible. For accommodations on the basis of disability, please contact your local OU Site Director.

Adjustment for Pregnancy/Childbirth-Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see <http://www.ou.edu/content/eoo/faqs/pregnancy-faqs.html>.

Title IX Resources

For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24/7, counseling services, mutual no-contact orders, scheduling adjustments, and disciplinary sanctions against the perpetrator. Please contact the Sexual Misconduct Office at smo@ou.edu or (405) 325-2215 (8-5), or the Sexual Assault Response Team at (405) 615 -0013 (24/7) to report an incident. To learn more about Title IX, please visit the Institutional Equity Office's website at <http://www.ou.edu/content/eoo.html>

Course Policies

Advanced Programs policy is to order books in paperback if available. Courses, dates, and professors are subject to change. Please check with your OU Site Director. Students should retain a copy of any assignments that are mailed to the professor for the course. Advanced Programs does not provide duplicating services or office supplies.

Any and all course materials, syllabus, lessons, lectures, etc. are the property of professor teaching the course and the Board of Regents of the University of Oklahoma and are protected under applicable copyright.

For more information about Advanced Programs, visit our website at: <http://www.goou.ou.edu/>

INSTRUCTOR VITA

Timothy A. Laubach, Ph.D.

Education

- Ph.D. Science Education, University of Oklahoma, Norman, OK, December 2005
- M.Ed. Science Education, University of Oklahoma, May 1998
- B.S. Earth Science Education, Coaching Minor, Tennessee Temple University, Chattanooga, TN, May 1995

Current Positions

- Associate Professor of Science Education
- Director of the John W. Renner Science Education Center

Frequently Taught Advanced Programs Courses

- ILAC 5143 Theory and Research in Education
- ILAC 6960 Learning and Technology

Major Areas of Teaching and Research Interest

I primarily teach undergraduate and graduate science education courses. My major research interests include STEM education, pre-service teacher education, outdoor education, and educational robotics.

Representative Publications and Presentations

Publications (five most recent)

- Biddy, Q. L., & Laubach, T. A. (2015). Understanding the nature of science through integrating the history of science. In M. J. Mohr-Schroeder, & S. S. Harkness (Eds.), *Proceedings of the 114th Annual Convention of the School Science and Mathematics Association (Vol. 2)*. Oklahoma City, OK: SSMA.
- Street, G. M., & Laubach, T. A. (2013). And so it grows: Using a computer-based simulation of a population growth model to integrate biology and mathematics. *The American Biology Teacher*, 75(4), 274-279.
- Laubach, T. A., Crofford, G. D., & Marek, E. A. (2012). Exploring Native American students' perceptions of scientists. *International Journal of Science Education*, 34(11-12), 1769-1794.
- Laubach, T. A., Elizondo, L. A., McCann, P., & Gilani S. (2010). Quantum dotting the "i" of inquiry: A guided inquiry approach to teaching nanotechnology. *The Physics Teacher*, 48(3), 186-188.
- Marek, E. A., & Laubach, T. A. (2007). Bridging the gap between theory and practice: A success story from science education. In M. Gordon, & T. V. O'Brien (Eds.), *Bridging theory and practice in teacher education* (pp. 47-60). Rotterdam, The Netherlands: Sense.

Presentations (five most recent)

- Laubach, T. A. (2016, June). *What is a model (9-12)*. Paper accepted at the annual summer meeting of Oklahoma Science Teachers Association (OSTA) and Oklahoma Council of Teachers of Mathematics (OCTM), Tulsa, OK.
- Laubach, T. A. (2016, June). *What is a model (K-5)*. Paper accepted at the annual summer meeting of Oklahoma Science Teachers Association (OSTA) and Oklahoma Council of Teachers of Mathematics (OCTM), Tulsa, OK.
- Miller-DeBoer, C. M., & Laubach, T. A. (2016, January). *Secondary science teacher science writing instruction efficacy beliefs*. Proposal accepted for the annual meeting of the Association for Science Teacher Education (ASTE), Reno, NV.
- Laubach, T. A. (2015, October, 2015). *Educational robotics and PK-12 STEM teacher education: A research synthesis*. Paper presented at the annual meeting of the School Science Mathematics Association (SSMA), Oklahoma City, OK.

- Bidy, Q. L., & Laubach, T. A. (2015, October). Understanding the nature of science through integrating the history of science. Paper presented at the annual meeting of the School Science Mathematics Association (SSMA), Oklahoma City, OK.
- Laubach, T. A., Neill, T. N., & Patrick, L. (2015, October). *The development/validation/reliability of a mathematics and science integration rubric*. Paper presented at the annual meeting of the School Science Mathematics Association (SSMA), Oklahoma City, OK.

Representative Honors and Awards Received

- Junior Faculty Award, Jeannine Rainbolt College of Education, University of Oklahoma, 2013-2014
- Academic Keys Who's Who in Curriculum & Education, University of Oklahoma, 2011-2012
- Young Scholar Award, Jeannine Rainbolt College of Education, University of Oklahoma, 2005-2006
- Outstanding Thesis National Finalist, National Association for Research in Science Teaching, 1999

Major Professional Affiliations

- American Association of Physics Teachers (AAPT)
- American Educational Research Association (AERA)
- Association for Science Teacher Education (ASTE)
- Association for Supervision and Curriculum Development (ASCD)
- National Association of Biology Teachers (NABT)
- National Association for Research in Science Teaching (NARST)
- National Science Teachers Association (NSTA)
- Oklahoma Science Teachers Association (OSTA)
- School Science Mathematics Association (SSMA)
- Southwest Association for Science Teacher Education (SW-ASTE)