**SACRED HEART UNIVERSITY**

**GRADUATE PROGRAM IN OCCUPATIONAL THERAPY**

**OT503: INTRODUCTION TO RESEARCH**

**SPRING 2019**

**SYLLABUS AND TOPICAL OUTLINE**

**CREDIT HOURS:** 2

**FACULTY:** Amy Burton OTD, OTR/L

**OFFICE EMAIL:** burtona3@sacredheart.edu

**OFFICE HOURS:** By appointment

**CLASS DAY AND TIME:** Tues 3:30-5:30 and 5:30-7:30 / Thurs 4-6 and 6-8

**CLASS FORMAT:** PowerPoint, textbook readings, and in-class activities

**COURSE DESCRIPTION**

Introduction to Research will provide the occupational therapy student with a thorough understanding of the importance of research to the profession of occupational therapy. Students will develop the ability to read and critique the research of occupational therapy and other professions. Course formats include PowerPoint, textbook readings, and in-class activities.

**RELATIONSHIP TO OT PRACTICE AND VISION 2025**

*“*Occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living.”

As a therapist you will frequently need to examine the research evidence regarding interventions you may wish to try with a client, or you may need to examine research evidence to determine if the assessment tool you plan to use is appropriate for your client. You will need to be able to read and understand the research and then explain this information to your client, their families, and your team colleagues in a way that they can understand. You need to be able to think critically about what you are hearing and not take everything you hear/read at face value. By the end of this course, you will be able to do so. You may also find yourself someday asking questions about your practice that you cannot answer with our current research in OT, and you may wish to do some research of your own. This course, along with Research II, and your Capstone series, will help you to be able to do so.

**RELATIONSHIP TO CURRICULUM DESIGN**

Our curriculum design is symbolized by the tree of life, an interconnected and entwined sphere, where faculty design experiences to provide foundational information (the roots), and through collaborative processes between faculty and students, knowledge emerges and is applied to an expanding repertoire of professional behaviors. This course is considered to be foundational in that the information and experiences that you will gain from this course will be used across the rest of you career as an occupational therapist. As a foundational course, the primary level of learning we will be using according to Bloom’s taxonomy is remembering / knowledge, but we will also be working towards understanding and application of this material through article critiques, in class activities, and use of research in your mental health PBL tutorials. In next semester’s research course (Research II) you will progress towards greater levels of application, as you will write a research proposal.

**CONCEPTUAL MODEL FOR THIS COURSE**

This course will provide you with the tools you need to function as a clinician using evidence based practice. The model of evidence based practice we will use is the Johns Hopkins model available at <http://www.hopkinsmedicine.org/evidence-based-practice/jhn_ebp.html>



**TEACHING AND LEARNING METHODS**

This course will be taught using a variety of methods and strategies. PowerPoints, textbook and online materials, discussions, and activities will all be used to integrate and apply information to occupational therapy practice. In keeping with our departmental focus on the ***process*** of learning, much of the course content will be provided through fun, engaging, in-class activities. I hope these activities will motivate you to experience and understand the basic concepts of research design.

**COURSE POLICIES**

**STUDENT BUDGET FOR COURSE SUPPLIES: None needed**

**INDIVIDUAL AND GROUP WORK:** All work is individual work unless

specifically stated otherwise

**ACADEMIC INTEGRITY: refer to *Program Manual***

**ATTENDENCE: refer to *Program Manual***

**PROFESSIONAL BEHAVIORS: refer to *Program Manual***

**REQUIRED TEXTS**

American Psychological Association. (2010). *Publication manual of the American Psychological Association (6th ed.).* Washington DC: Author.

Gliner, J. A., Morgan, G. A., & Leech, N. L. (2017). *Research methods in applied settings: An integrated approach to design and analysis (3rd ed.).* New York: Routledge. (This book is available electronically, for rent, or for purchase online.)

Taylor, R. R. (2017). *Keilhofner’s research in occupational therapy: Methods of inquiry for enhancing practice.* Philadelphia: FA Davis. (This textbook is available as an eBook, online through the Sacred Heart library and can be viewed for free.)

**RECOMMENDED RESOURCES**

In addition to your textbooks, I will help you to answer many of the questions you have for this course. Some of you may be unaccustomed to reading your textbooks, but it will be crucial for you in this course. If you find a concept difficult to understand in your primary textbook, there are a multitude of additional textbooks available to you in the SHU Library. Also, PowerPoints and in-class activities will support textbook readings.

Finally, there is a wonderful research website at this address that covers a wealth of information in a clear and understandable way. You may find this helpful as well.

<http://www.socialresearchmethods.net/kb/contents.php>

Our library has also created OT lib guides and you can access this document at <http://library.sacredheart.edu/c.php?g=29692&p=4108684>

**PULLING IT ALL TOGETHER WITH LEARNING OBJECTIVES**

Each program in OT must meet the same Accreditation Council for Occupational Therapy Education **(**ACOTE) standards. How they are met varies from program to program. In each program, each standard must be addressed in at least two courses. The standards that are addressed in this course are listed below. To review each standard, please refer the AOTA website at [www.aota.org](http://www.aota.org)/…/accreditation/standards/2011

The course learning objectives are linked to the ACOTE standards as well as the program’s objectives, mission and vision, and the overall curricular design. The program’s objectives were developed based upon our PRIDE vision. The chart below shows the connection between the course learning objectives, the program objectives they are linked to, the ACOTE standards that are addressed in this course, as well as how we plan to meet and measure the learning objectives for this course. By the time you graduate from the program and in preparation for entry-level practice, you should meet the course objectives, program objectives, and ACOTE standards.

All course expectations are designed according to Bloom’s Taxonomy of Learning Domains---Remember, Understand, Apply, Analyze, Evaluate, and Create. This course will facilitate students to perform within the domains of remembering, understanding, applying, analyzing, and evaluating, using factual, conceptual, and procedural types of knowledge.

Refer to <http://www.celt.iastate.edu/teaching-resources/effective-practice/revised-blooms-taxonomy/>

**The student will actively participate to accomplish and meet the objectives to:**

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| Course Learning Objective | Program Objective | ACOTE Standard | Learning Experiences | How will the Learning Objective be Measured? |
| Explain the importance of evidence to occupational therapy practice. | Exhibit critical thinking and clinical reasoning skills requisite for entry-level occupational therapy practice | B.8.1: Articulate the importance of research, scholarly activities, and the continued development of a body of knowledge relevant to the profession of occupational therapy. | PowerPoint, readings, and in-class activities | 3 min journal  |
| Participate in scholarship with ethics and integrity. | Practice in a safe, legal, and ethical manner | B.8.3 Use scholarly literature to make evidence-based decisions.B.8.5: Understand and critique the validity of research studies, including designs (both quantitative and qualitative) and methodologies | PowerPoint on research ethics, APA/plagiarism, research design, and validity Ethics activities in class (analysis of historical unethical activities)Completion of GCP course online  | ExamsReading assignmentsAPA reading assignmentArticle critique assignmentGCP certificate  |
| Define basic research terms and use research terms correctly within conversation about research and in writing about research. | Engage in professional activitiesExhibit critical thinking and clinical reasoning skills requisite for entry-level occupational therapy practice  | B.8.5: Understand and critique the validity of research studies, including designs (both quantitative and qualitative) and methodologies | PowerPoint and in class activitiesReadings and reading quizzes | Midterm and final examArticle critique assignment |
| Understand the purpose and usage of APA formatting to correctly cite the work of others | Engage in professional activities | B.8.3 Use scholarly literature to make evidence-based decisions.B.8.6: Demonstrate the skills necessary to design a research proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis. | PowerPoint and in class activities in relation to plagiarism and APAReadings and reading quizzes | APA reading assignmentMidterm and final exam |
| Search effectively for research on topics within occupational therapy. | Engage in professional activitiesExhibit critical thinking and clinical reasoning skills requisite for entry-level occupational therapy practice  | B.8.2: Effectively locate, understand, and evaluate information, including the quality of research evidence.B.8.6: Demonstrate the skills necessary to design a research proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis. | In class activitiesLiterature search activity in class | Search activity completionMini Lit Review/ Search activity |
| Compare and contrast sources of research and their importance, quality, and relevance | Engage in professional activitiesExhibit critical thinking and clinical reasoning skills requisite for entry-level occupational therapy practice | B.8.2: Effectively locate, understand, and evaluate information, including the quality of research evidence. | In class activitiesDiscussion of impact factors  | Midterm and final examArticle critique assignment |
| Critique a research paper and research gathered from daily life (newspaper, online news etc.) | Engage in professional activitiesExhibit critical thinking and clinical reasoning skills requisite for entry-level occupational therapy practice | B.8.2: Effectively locate, understand, and evaluate information, including the quality of research evidence. | In class activitiesWriting CAPs | Article critique assignmentMidterm and final exam |
| Select appropriate statistics for a given research question. | Engage in professional activities | B.8.4: Understand and use basic descriptive, correlational, and inferential quantitative statistics and code, analyze, and synthesize qualitative data.B.8.6: Demonstrate the skills necessary to design a research proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis. | In class activitiesReadings and reading quizzes | Midterm and final examArticle critique assignment |
| Code qualitative data.  | Engage in professional activities | B.8.4: Understand and use basic descriptive, correlational, and inferential quantitative statistics and code, analyze, and synthesize qualitative data.B.8.7 Participate in scholarly activities that evaluate professional practice, service delivery, and/or professional issues (e.g., Scholarship of Integration, | In class activitiesText readings | Coding activity in class |
| Identify all basic research designs.Categorize research designs into 3 major categories (qualitative, quantitative, and mixed methods) and sub-categories (experimental, quasi-experimental, cohort, case-control, associational, meta-analytic, survey).Identify validity threats associated with each category of research. | Engage in professional activitiesExhibit critical thinking and clinical reasoning skills requisite for entry-level occupational therapy practice  | B.8.5: Understand and critique the validity of research studies, including designs (both quantitative and qualitative) and methodologies B.8.6: Demonstrate the skills necessary to design a research proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis. | In class activitiesReading quizzes | Midterm and final examArticle critique assignment |
| Compare and contrast the quality of published assessment tools. | Exhibit critical thinking and clinical reasoning skills requisite for entry-level occupational therapy practice Engage in professional activities | B.1.7: Demonstrate the ability to use statistics to interpret tests and measurements for the purpose of delivering evidence based practiceB.4.2: Select appropriate assessment tools on the basis of client needs, contextual factors, ***and psychometric properties of tests.*** B.8.6: Demonstrate the skills necessary to design a research proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis. | In class activities for reliability and validityExamination of tools/ manualsConsideration of scenarios in relation to types of reliability and validity | Article critique assignmentReading assignmentsFinal Exam |

**DESCRIPTION OF ASSIGNMENTS AND GRADING**

I expect that you will read, study, and practice with this material outside of class time in order to learn it. I will provide a variety of methods to do so. You will be able to earn points in this class. This grading scheme is based on the “rule” that for every hour you spend in class, you should spend approximately the same number of hours outside of class studying and practicing with the material. That would mean you should be reading, studying, and practicing about 2 hours a week for this course in addition to the two hours in class.

The following grade scheme will be followed based on the points you earn.

1,200 and up = A

1,050 – 1,199 = A-

1,000 – 1,049 = B+

950 – 999 = B

900 – 949 = B-

850 – 899 = C+

800 – 849 = C

Anything less than a C is considered a failing grade in graduate school

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| **DUE DATE** | **ASSIGNMENT** | **DESCRIPTION** | **GRADE** |
|  | Midterm: Multiple Choice Assignment | Required: Will be taken on the computer on BB. The midterm is open book, and is 30 questions - multiple choice and T/F. There will be a study guide posted on BB. The content will come from your chapter readings, PowerPoints, and in class activities.  | 300 points |
|  | Final Exam | Required: The final will be taken in class on BB. The final is not open book and will be made up of 50 multiple choice, matching, and T/F questions. There will be a study guide posted on BB. The content will come from your chapter readings and in class activities / seminars/PowerPoints. Some of the questions will require beginning application of the content to actual research studies.  | 500 points |
|  | Article Critique Assignment | The article critique assignment will follow a rubric and format that will be posted on BB. For the critique, you will be provided with an article to review and questions to answer in order to critique the study in terms of its design and methods as well as the paper’s reporting.  | 100 points |
|  | Good Clinical Practice (GCP) online course | You will complete the online training modules about good clinical practice (GCP) through the SBM and NIH. The instructions for how to do so are posted on BB under “assignments.” This will take you about 3 hours to complete. | 50 points |
|  | APA reading assignment | You will complete a quiz on APA writing style. This is open book. | 25 points |
| Varied | In-class activities and class participation | We will have a variety of in-class activities that will be turned in, but graded pass/fail with a 7.5 point grade that will be your measure of class participation for that day. You must complete them during the class and submit them at the end of the class for the points to be recorded.  | 75 points total(10 x 7.5 points each) |
|  | Qualitative design using TBL method | You will learn about qualitative design and participate in group activities in class following the TBL method across two weeks | 100 points |
| Varies  | Reading assignments | There will be 6 reading assignments posted for the chapters you are assigned to read. These are open book but must be taken individually. You should plan ahead, as these assignments for the chapters will only be available for the weeks they are scheduled so that you will read them for the week the material will be discussed in class.  | 150 points total(6 x 25 points each) |
| Varies | Sample articles | Optional for extra credit: You may do up to 5 sample article critiques. There will be articles posted for different research designs. Article critique questions will be posted on BB. You may use the article as you answer the questions. Answer sheets are provided for you to check your work at the end of the semester, prior to the final exam. | Optional for extra credit:50 points total(5 x 10 each) |

**TOPICAL OUTINE**

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| **DATE** | **TOPIC OR MODULE** | **READINGS** | **CLASS ACTIVITIES** | **ASSIGNMENTS**  |
| Week 1Week of Jan 7-11 | Importance of Research for Occupational TherapyEvidence based practiceAnatomy of a Research Article***Research skill:*** Effective searches | Taylor (2017).Chapter 1: OT as an Evidence-based Practice ProfessionGliner, Morgan, & Leech (2017).p. 456-467Please review and examine 2 CATS that interest you<http://www.otcats.com/topics/index.html>  | Go over syllabus and all assignmentsMini CAP activityLiterature Search activity3 min journal (Importance of OT in Research) | Reading assignment |
| Week 2Week of Jan 14-18 | Integrity with scholarship / plagiarism /APAParaphrasingPICO questionsLevels of EvidenceImpact factors Being a good consumer of research***Research skill:*** APA format and citationFinding content to effectively critique a research paper and journal  | Gliner, Morgan, & Leech (2017). p. 447-453APA Book (for quiz)Info on impact factors, AOTA authorship, and plagiarism in “Resources” folder on BB (for skim/review)Another resource: Open access -[**http://thinkchecksubmit.org/**](http://thinkchecksubmit.org/) | PICO activityParaphrasing activitySearch and Destroy activity3 min journal (Plagiarism) | APA reading assignment  |
| Week 3Week of Jan 21-25 | Overview of research questions and approachesDefinitions and terms***Research skill:*** Understanding research terminology | Gliner, Morgan, & Leech (2017). Chapters 1-2 | Qualitative and quantitative research questions activityResearch is all around us activityMini Lit Review/ search activityResearch timeline | Reading assignment |
| Week 4Week of Jan 28-Feb 1Special Guest: Dr. Bortone | Qualitative research designs and data collection methods***Research skill:*** Planning qualitative studies | Readings on BB | Team based learning activities TBL quiz (in class)*You will post your individual quiz answers to BB and turn in your team quiz* |  |
| Week 5Week of Feb 4-8Special Guest: Dr. Bortone | Qualitative data analysis ***Research skill:*** Coding qualitative data | Readings on BB | Coding activities  |  |
| Week 6Week of Feb 11-15 | Understanding and evaluating Experimental and Quasi-experimental designsInternal validity ***Research skill:*** Critiquing internal validity | Gliner, Morgan, & Leech. (2017).Chapters 3-5 & 8 | Research Methods “Pretest”Threats to Validity ActivityChoosing Exp DesignsFour Corners Activity | Reading assignment |
| Week 7Week of Feb 18-22 | Understanding and evaluating Non-experimental designsSubjects, Sampling and External Validity***Research skill:*** Critiquing samples and external validity | Gliner, Morgan, & Leech. (2017).Chapter 7 (p. 106-114) & Chapter 9 (all) | Sampling ActivityCookies!!!!!Evaluating External Validity ActivitySock Sampling Activity | Reading assignment |
| Week 8Week of Feb 25-Mar 1 | Test reliability and validity***Research skill:*** Critiquing measures | Gliner, Morgan, & Leech. (2017).Chapter 11 (all general content; do not read about calculations) | The Amazing Kuhaneck Test of Visual Acuity | MIDTERM: MULTIPLE CHOICE ASSIGNMENT will be available all week online. You may take it at home on BB. It is open book on content from Weeks 1-7. The Midterm must be done on your own.(30 Qs- MC, T/F) |
| Spring BreakMar 4-8 | No Class | No Class | No Class | No Class |
| Week 9Week of Mar 11-15 | Data analysis & Evaluating choice of statistics in relation to the research question***Research skill:*** Understanding statistics | Gliner, Morgan, & Leech. (2017).Chapter 10 (no calculations); Chapter 16 (p. 281-291 only); Chapter 19 (all)Hissong, Lape, & BaileyChapter 7 (p. 80-91 (this will be posted on BB) Please view the you tube tutorial about how to use EXCEL to run t tests- the links will be posted on BB  | Running simple stats in class using ExcelMatching Activity<http://ed.ted.com/lessons/how-statistics-can-be-misleading-mark-liddell> | Reading assignment: This will include readings from Weeks 8 and 9) |
| Week 10Week of Mar 19-23 | Evaluating measurement validityData collection techniques***Research skill:*** Understanding and critiquing different types of measures and statistics | Gliner, Morgan, & Leech. (2017). Chapters 12-13 | Interpretation of Statistics ActivityEvaluating Tests and Measures Activity | Reading assignment |
| Week 11Week of Mar 25-29 | Evaluating studies***Research skill:***Critiquing the evidence | No mandatory readings this week, but you can use Gliner, Morgan, & Leech. (2017). Chapters 23-24 as a resource. | Practice Critique Activities in classGo over the Article Critique Assignment | Article Critique Assignment is due by April 14th at midnight |
| Week 12Week of Apr 1-5 | AOTA Conference Week(Makeup Week)Good Clinical Practice (GCP) SBM/NIH Online Course***Research skill:*** Protecting human subjects | No readings, just the online course module<https://www.sbm.org/training/good-clinical-practice-for-social-and-behavioral-research-elearning-course> | No class, complete the online course module | Certificate is due. You must scan or take a picture of the certificate and submit it to BB assignments button. Due by or before April 7 at midnight. |
| Week 13Week of Apr 8-12 | Ethical issues and research / IRBs***Research skill:*** Protecting human subjects | Gliner, Morgan, & Leech. (2017) Chapter 14 | Ethical issues Activities | Any optional sample articles you have decided to do for points towards your final grade are due by April 21st at midnight |
| Week 14Week ofApr 15-19 | Wrap up, practice questions, prep for final exam | No readings | Q and A |  |
| Week 15Week ofApr 22-26 | Final Exam:50 questions; MC and T/FIn person, but on laptop |  |  | Final Exam(in class)  |