



## **Occ Ther 873 (Kines 508 Workshop for Fall 2018) Advanced Outcome Measurement in Occupational Therapy Fall 3**

### **3 Credits**

Course is 3 credits and requires 135 hours of active learning. In this course students will engage in reading, online lectures, e-learning activities, quizzes, written assignments, and asynchronous and synchronous online class discussions facilitated by the course instructor.

**Canvas Course URL:** <https://canvas.wisc.edu/courses/115068>

**Meeting Time and Location:** Course is online and uses synchronous and asynchronous discussion methods.

**Instructional Mode:** Online

### **Course Designations and Attributes**

*Graduate course for OTD degree*

### **INSTRUCTOR**

#### **Ruth E Benedict, DrPH, OTR**

Professor of Kinesiology & Occupational Therapy Program Director (OT)

608-890-0160

[rbenedict@wisc.edu](mailto:rbenedict@wisc.edu)

Office hours/Chat hours: By Appointment

The course instructor will be available online regularly to check messages and engage in synchronous and asynchronous discussions. You may arrange an individual appointment with the course instructor or send questions via email. Email is most effective for questions that are relatively simple (e.g., verifying factual information). If your questions relate to conceptual issues (e.g., explaining course content or assignments), then direct communication is encouraged.

### **OFFICIAL COURSE DESCRIPTION**

*Occupational therapy practice and research rely on outcome measures to document efficacy and effectiveness of programs and interventions. OT 873 will explore quality assurance in OT service delivery (including consumer satisfaction) and objective and subjective functional and occupational performance measures of OT interventions. Content of the course will include review of principles of measurement (reliability, validity and clinical utility). In this course,*

students will examine general themes and trends in healthcare outcomes measurement and research as well as issues germane to specific areas of OT practice. New measurement “toolboxes” such as the NIH Toolbox developed to standardize assessment and outcome measurement and the Rehab Measures Database will be explored to identify state of the art measurement tools and techniques. Strategies and skills for assessing the psychometric properties and clinical utility of a variety of outcomes measures will be learned. In this course, students will identify and evaluate the current state of measurement in their area of practice and interest. They will then develop a comprehensive plan for measuring outcomes to support effectiveness of a program or project in a practice area of interest.

**Requisites:** Graduate/professional standing

## LEARNING OUTCOMES

Upon course completion, the student will be able to:

1. Identify and explain the role of outcome measures in assuring quality of OT services and efficacy of OT interventions across settings, populations and programs.
2. Identify the domains of the World Health Organization ICF (International Classification of Function) most relevant for evaluating Occupational Therapy practice in context.
3. Describe the conceptual similarities and differences in efficiency, effectiveness and efficacy.
4. Describe the measurement properties of objective and subjective measures of learning outcomes, service provision, function, occupational performance and quality of life.
5. Evaluate the reliability, validity and utility of objective and subjective measures of service provision, learning outcomes, function, occupational performance and quality of life.
6. Develop an outcome measurement plan for a specific area of practice.
7. Apply appropriate outcome measures for evaluating service quality and effectiveness of interventions in a specific area of practice.

## ASSIGNMENTS

Assignment	Due Date	Percentage of Grade
Discussions	Bi-weekly	20%
Case-based Model & Outcomes	End of Module 1	15%
Outcome Study Reviews	End of Module 4	15%
Measurement Evaluations	End of Module 7	15%
Outcome Measurement Project	Monday, 12/17	35%
<b>Total</b>		<b>100%</b>

Assignments are organized within eight modules and each module lasts approximately 2 weeks.

### Group Discussion –

As an online course, discussions will occur primarily through asynchronous forums in the Canvas LMS, with periodic synchronous scheduled discussions with peers and the course instructor.

All modules will include on-line discussion questions. Each student is required to post at least one primary comment that represents his/her position and/or thoughts about the discussion question. This primary post should reflect thoughtful reflection on the discussion questions, incorporation of reading content or newly acquired knowledge and some level of synthesis. The deadlines for posting are in the course schedule section of the syllabus.

As well, it is required that each student make 2 other comments/reactions/questions regarding the posts of colleagues that contribute to an interactive dialogue and discussion.

The above represents the minimum amount of participation to earn the allotted points. You are encouraged to participate to a greater extent according to the complexity of the topic and your interest in your colleagues thoughts.

### **Case-based Model & Outcome Measure –**

The purpose of this assignment is to familiarize students with conceptual and explanatory models that inform the development, application and interpretation of outcome measures.

- Identify a condition and specific case encountered in your area of practice. Without revealing personally identifying information, use the case to develop a conceptual model of specific outcomes of interest using the ICF or OTPF framework.
- Describe the case using one of the two explanatory models presented during this module (Health Belief Model, Andersen-Aday Behavioral Model of Health Services Use). Identify the specific factors associated with the case related to preventive or health care seeking behaviors.
- Select one OT intervention believed to be effective in treating the condition. Describe an outcome measure that considers the causal effects of an intervention for your case. To what extent does the measure take into account the type, dosage, duration and timing of the intervention?

### **Outcome Study Reviews –**

Through this assignment, students will learn steps in the critical analysis of outcome studies. At the beginning of the semester, identify three peer-reviewed scientific outcome studies that vary in purpose and design and are relevant to your specific area of practice or capstone project. For each study, write a brief statement of the study purpose, a description of the sample population, the characteristics of the intervention (independent variable) and the outcome (dependent) measures used to evaluate the intervention. During the Modules 1-4, compare and critique the following aspects of the selected studies:

- Module 1 – The extent to which conceptual or explanatory models are described by the authors. Are they causal? Conceptual? Explanatory? Discuss any model(s) which you think are aligned with the study and your rationale for their selection.
- Module 2 – The scale properties and psychometrics of the selected outcome measures including reliability, validity and utility of the measures used.

- Module 3 – The strength of the study design and the degree to which the measures are appropriate to the research question, the design, and whether they introduce potential sources of bias.
- Module 4 – The characteristics of one measure from each of the studies with regard to type (observational, self-report, qualitative/quantitative, etc.), scaling properties, standardization, normative, criterion-referenced, etc.

This assignment will be due at the end of Module 4. For **each** manuscript or outcome study (3 total), submit your review of no more than 3 pages. Include the following headings: Summary/Overview; Models; Scale Properties and Psychometrics; Study Design; Measure Characteristics. Submit by 11:59 p.m. on Sunday, October 28<sup>th</sup>.

### **Measurement Evaluations –**

This assignment will support student learning of the depth and breadth of measurement tools available for assessing outcomes and will build your skills in evaluating the strength of those tools. During Modules 5-7, complete one measurement review each week (2 per module) using the form provided. On the form, include a brief description of a new (to you) measure which is relevant to the current module topic. Identify the source and describe the purpose, characteristics of the targeted population, how used in practice, utility (format, procedures, time to complete, etc.), your evaluation of the psychometric properties of the tool (standardization, reliability, validity, specificity/sensitivity). At the bottom of the form, **summarize the strengths, weaknesses and potential limitations of the measure as well as one specific suggestion for improvement** of the tools properties. The deadline for posting each weekly review is Monday at 11:59 p.m. for each week in Modules 5, 6 and 7.

### **Outcome Measurement Project –**

Each student will create a measurement plan designed to provide evidence of efficacy and effectiveness of an intervention. The outcomes to be measured may be individual, population or system focused. The plan should include a description of the intervention and the targeted outcomes based on your focus. Apply one of the models introduced early in the semester to frame the domains to be assessed. Then, select at least three measures representative of different data source methods (i.e. self-report, clinical and administrative) and data types (i.e. qualitative vs. quantitative, standardized vs. non-standardized, norm-, criterion-referenced, etc.). You do not need to incorporate every possible property or characteristic of data collection methods and tools, but your selection of measures should represent your knowledge of the variety of the tools that are available and their appropriate application. Once you have selected the three measures, describe the characteristics of each including detailed information about the reliability and validity of the measurement tool. Justify your selection of tools with regard to utility, sensitivity/specificity, cultural appropriateness and other important considerations for measuring the outcome(s) of interest. Finally, conduct a “pilot” with one of your tools, gathering and analyzing real data and synthesize and critique the efficacy and effectiveness of the measure to capture outcomes of the intervention. The deadline for this assignment will be Monday, December 17<sup>th</sup> at 11:59 p.m..

### Assignment Submission

Unless otherwise stated, each assignment must be electronically submitted to the course website by 11:59 p.m. on the assigned due date. In order to ensure equitable grade assignment, all assignments must be turned in on the due date. **Assignments turned in late will not receive full credit.** For every day that an assignment is late, 10% of the student's earned points for that assignment will be deducted. **Assignments will NOT be accepted more than one week late.**

### Guidelines for Assignment Format

Unless otherwise stated on the assignment guidelines:

1. All assignments should be typed, double-spaced, and use a font size no smaller than 14 characters per inch (e.g. Verdana 10-point font or Times New Roman 12-point font).
2. Use a 1-inch margin on all sides.
3. Insert page number for all assignments that are longer than 1 page.
4. All assignments should be written professionally using full sentences and paragraphs as appropriate.
5. Except for assignments to be written as occupational therapy documentation or otherwise specified, following the guidelines in the APA manual for writing style, including, but not limited to, headings, number, table format, citations, and reference list.
6. Clear and concise communication is a critical skill for OTs. Adhere to all page and space limits on assignments. Portions of the assignments exceeding page/space limits will not be considered in grading.

## **GRADING**

Course grading is based on the successful completion of all assignments, and is broken down according to the following percentages and awarded points.

Final grade assignment will use the following scale:

<b>%</b>	<b>Grade</b>
<b>94-100</b>	<b>A</b>
<b>90-93.99</b>	<b>AB</b>
<b>84-89.99</b>	<b>B</b>
<b>80-83.99</b>	<b>BC</b>
<b>70-79.99</b>	<b>C</b>

## REQUIRED TEXTBOOK, SOFTWARE & OTHER COURSE MATERIALS

### Required Textbooks

- Kane, R. & Radosevich, D.M. (2011). *Conducting Health Outcomes Research*, Sudbury, MA: Jones & Bartlett Learning.
- Portney LG & Watkins M. (2015). *Foundations of Clinical Research (3<sup>rd</sup> Edition)*, Philadelphia, PA: F.A. Davis. (Also required for Occ Ther 872)

### Recommended Textbook

- Hinojosa, J. , Kramer, P., & Crist PK. (2014) *Evaluation: Obtaining and Interpreting Data (4th Edition)*. AOTA Press.

### Required Software

- Canvas with BB Collaborate
- Google Docs, Hangouts
- YouTube
- Adobe Acrobat
- Microsoft Word, Excel

## OTHER COURSE INFORMATION

- Provide any additional info (*identify honors, field trips, other special attributes or activities*)

## RULES, RIGHTS & RESPONSIBILITIES

- See the Guide's [Rules, Rights and Responsibilities](#)

## ACADEMIC INTEGRITY

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to [studentconduct.wiscweb.wisc.edu/academic-integrity/](http://studentconduct.wiscweb.wisc.edu/academic-integrity/).

## ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

**McBurney Disability Resource Center syllabus statement:** "The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison

policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA." <http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

## **DIVERSITY & INCLUSION**

**Institutional statement on diversity:** "Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world." <https://diversity.wisc.edu/>

## COURSE SCHEDULE

Module: Topic Objectives	Readings
<b>Module 1: Accountability &amp; Outcome Measurement: Principles, Frameworks and Issues</b> <ul style="list-style-type: none"> <li>• To articulate the reasons for undertaking outcome measurement and research for individual, population and/or program evaluation purposes.</li> <li>• To discuss the challenges and barriers to assessing outcomes.</li> <li>• To compare and contrast models of outcome assessment and their relationship to risk factors and intervention approaches.</li> <li>• To identify and classify risk factors contributing to outcomes.</li> <li>• To use intervention taxonomy that considers type, dosage, duration and timing when conducting outcome measurement.</li> <li>• To compare and contrast the strengths and limitations of outcome study designs.</li> <li>• To operationalize variables according to their elements, how defined, potential source and measurement format.</li> </ul>	<p><u>Textbooks:</u></p> <p>Kane, R. &amp; Radosevich, D.M. (2011) Chapters 1 &amp; 2</p> <p><u>E-articles (posted in Canvas):</u></p> <p>American Occupational Therapy Association and American Occupational Therapy Foundation.(2011). Occupational Therapy Research Agenda. <i>AJOT</i>, 65: s4-s7.</p> <p>Lamb AJ, Metzler CA.(2014). Defining the value of occupational therapy: A health policy lens on research and practice. <i>AJOT</i>, 68(1):9-14. doi: 10.5014/ajot.2014.681001. PMID: 24367949.</p> <p>Executive Summary (pp. ES-1-ES-8) in: Butler M, Kane RL, Larson S, Jeffery MM, Grove M. Quality Improvement Measurement of Outcomes for People With Disabilities. Closing the Quality Gap: Revisiting the State of the Science. Evidence Report/ Technology Assessment No. 208. (Prepared by the Minnesota Evidence-based Practice Center under Contract No. 290-2007-10064-I.) AHRQ Publication No. 12(13)-E013-EF. Rockville, MD: Agency for Healthcare Research and Quality; October 2012. <a href="http://www.effectivehealthcare.gov/reports/final.cfm">www.effectivehealthcare.gov/reports/final.cfm</a>.</p> <p><u>Discussion Prep:</u></p> <p>Hughes, G. (2013). BEST care, first time, every time. In J. Burke (Ed.) <i>Health Analytics: Gaining the Insights to Transform Health Care</i>, © SAS Institute, Inc. Hoboken, NJ: John Wiley &amp; Sons, Inc. (Ch. 5, pp. 63-78)</p> <p>Talo S. What is next for ICF? <i>Int J Rehabil Res</i>. 2014 Sep;37(3):195-6. doi: 10.1097/MRR.000000000000067. PMID: 25089610.</p>
<b>Module 2: Measurement: Metrics, Reliability, Validity &amp; Utility</b> <ul style="list-style-type: none"> <li>• To select appropriate, high performing indicators for measuring outcomes.</li> </ul>	<p><u>Textbooks:</u></p> <p>Kane, R. &amp; Radosevich, D.M. (2011) Chapter 4</p> <p>Portney LG &amp; Watkins M. (2015). Review: Section II: Concepts of Measurement (Chapters 4,5,6).</p>



- To compare and contrast scaling and classification of indicators or outcome variables.
- To identify observable versus latent constructs and potential errors in measurement.
- To describe the characteristics and appropriate uses of categorical versus continuous variables.
- To appropriately apply the types and methods of scaling to specific purposes.

#### E-articles:

McDonald, G. (2011). Criteria for Selection of High-Performing Indicators: A checklist to inform monitoring and evaluation. Atlanta, GA: Centers for Disease Control and Prevention.

Andresen EM. Criteria for assessing the tools of disability outcomes research. *Arch Phys Med Rehabil* 2000; 81 Suppl 2:S15-S20.

### **Module 3: Designs for Outcome Evaluation**

- To discuss the issues and limitations encountered when measuring outcomes.
- To describe common threats to validity in outcome evaluation.
- To select and apply appropriate study designs to specific outcome questions.
- To differentiate the types of bias with the potential to affect evaluation results.

#### Textbooks:

Kane, R. & Radosevich, D.M. (2011)  
Chapter 3

#### E-articles:

Coster, W. J. (2013). Making the best match: Selecting outcome measures for clinical trials and outcome studies. *AJOT*, 67, 162–170. <http://dx.doi.org/10.5014/ajot.2013.006015>

Frost, M.A., Reeve, B.B., Liepa, A.M., Stauffer, J.W. & Hays, R.D. (2007). What is sufficient evidence for the reliability and validity of patient-reported outcome measures? *Value in Health*, 10 (Supp. 2): S94-105.

### **Module 4: Finding the Right Measures**

- To identify sources of outcome measurement tools.
- To evaluate the characteristics of outcome measures to ensure selection of the best tool.
- To select and justify qualitative vs. quantitative tools for stated purposes.

#### E-articles:

Fava GA, Tomba E, Sonino N. (2012). Clinimetrics: The science of clinical measurement. *Int J Clin Pract*, 66,1:11-15. doi: 10.1111/j.1742-1241.2011.02825.x

Executive Summary (pp. ES-8-ES-20) in:  
Butler M, Kane RL, Larson S, Jeffery MM, Grove M. Quality Improvement Measurement of Outcomes for People With Disabilities. Closing the Quality Gap: Revisiting the State of the Science. Evidence Report/ Technology Assessment No. 208. (Prepared by the Minnesota Evidence-based Practice Center under Contract No. 290-2007-10064-I.) AHRQ Publication No. 12(13)-E013-EF. Rockville, MD: Agency for Healthcare Research and Quality; October 2012. [www.effectivehealthcare.gov/reports/final.cfm](http://www.effectivehealthcare.gov/reports/final.cfm).

Quatrano LA, Cruz TH. Future of outcomes measurement: Impact on research in medical rehabilitation and neurologic populations. *Arch Phys Med Rehabil* 2011;92 (10 Suppl 1):S7-11.

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Amtmann D, Cook KF, Johnson KL, Cella D. The PROMIS initiative: involvement of rehabilitation stakeholders in development and examples of applications in rehabilitation research. *Arch Phys Med Rehabil* 2011;92 (10 Suppl 1):S12-19.

**Module 5: Generic Health & Quality of Life Measures**

- To state the rationale and appropriate application for use of generic health outcomes measures.
- To apply criteria for selection of a generic health or quality of life measure to a specific case.
- To discuss the practical implications of selecting and applying generic health outcome measures.

Textbooks:

Kane, R. & Radosevich, D.M. (2011)  
Chapters 5 & 6

E-articles:

TBA

**Module 6: Condition-specific Measures & Satisfaction with Care**

- To explain the rationale and appropriate application of condition-specific outcome measures.
- To apply criteria for selection of a condition-specific measure to a case.
- To summarize considerations in the selection and practical applications of satisfaction with care measures.

Textbooks:

Kane, R. & Radosevich, D.M. (2011)  
Chapters 7 & 8

E-articles:

TBA

**Module 7: Measuring Personal, Contextual and Environmental Factors; Risk Adjustment**

- To identify the varied roles that personal, contextual and environmental factors can play in measurement of outcomes.
- To critique the measures and methods used in a behavioral study.
- To discuss the process of risk adjustment and the strengths and limitations of various strategies.

Textbooks:

Kane, R. & Radosevich, D.M. (2011)  
Chapters 9 & 11

Krane, A., Terhorst, L., Bovbjerg, D.H., Scheier, M.F., Kucinski, B., Geller, D.A., Marsh, W., Tsung, A., Steel, J.L. (2018). Putting the life in lifestyle: Lifestyle choices after a diagnosis of cancer predicts overall survival. *Cancer*, 124(16):3417-3426. doi: 10.1002/cncr.31572. Epub 2018 Jul 5. PMID: 29975412; PubMed Central PMCID: PMC6108933.

E-articles:

TBA

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## **Module 8: Interventions and Data Gathering Methods**

- **To define treatment or intervention from individual, population and system perspectives.**
- **To identify the bases for comparing interventions across treatment, setting and provider characteristics.**
- **To give examples of self-report, clinical and administrative methods of measuring outcomes.**
- **To discuss the types of error common to survey or self-report measurement and the impact on precision and accuracy of data.**
- **To state the advantages and disadvantages of using administrative data for outcome research or quality improvement.**

### Textbooks:

Kane, R. & Radosevich, D.M. (2011)  
Chapters 10 & 12

### E-articles:

Gerhardt, W.E., Mara, C.A., Kudel, I., Morgan, E.M., Schoettker, P.J., Napora, J., Britto, M.T., Alessandrini, E.A.(2018). Systemwide implementation of patient-reported outcomes in routine clinical care at a children's hospital. *Jt Comm J Qual Patient Saf*, 44(8):441-453. doi: 10.1016/j.jcjq.2018.01.002. Epub 2018 Jun 20. PMID: 30071964.

