

RESC 6950 - Respiratory Care Research

Fall 2026 Syllabus, Section A01, CRN 41157,

Credit hours: 3

Instructor

John Komara

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Public Instructor Information

Professor: John J. Komara Jr. MBA/HCM, RRT

Adjunct Graduate Faculty-Respiratory Care and Health Professions; Youngstown State University. Former Administrator and Voting Scientific Board Member. Office of the Institutional Review Board (IRB) Cleveland Clinic Health System, Cleveland, Ohio.

Education: MBA/HCM, University of Phoenix, Arizona. {Summa cum laude} 2006.

BA, Ursuline College, Pepper Pike, Ohio (1988). AS, Cuyahoga Community College, Parma, Ohio (1977).

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Office Hours: This course utilizes an asynchronous web-based portal format via the Blackboard Learning Management System (LMS).

Preferred Contact Method: The preferred and primary communication format for this course is through the course portal using the Blackboard Course Messages system tool. This approach helps to maintain all course-related communications in one centralized location. Please note that these communications are both private and secure. In the event Blackboard encounters a technical difficulty, please use YSU email as the secondary method for course-related communications.

Course Description

6950. Respiratory Care Research. Provides rationale behind evidence-based medicine and presents key elements of scientific research for one study, lab investigation or clinical trial. Course will culminate in creation of abstract to be submitted for publication in Respiratory Care journal. Prereq.: Acceptance in MRC program. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Handbook for Healthcare Care Research	Chatburn, Robert L. (2011).	978-0-7637-7805-7

Required textbook: Chatburn, Robert L. (2011). Handbook for Healthcare Care Research. (2nd Edition); Mandu Press. [Cleveland, Ohio]. ISBN 978-0-7637-7805-7

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.



Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Course syllabus review. Chatburn Textbook: Chapter-1 Why Study Research? Chapter-2 Ethics and Research Chapter-3 Outcomes Research FDA Website review/critique The landmark "Belmont Report" (published 1979) Instructor Research Ethics Micro-lecture Outcomes Research Video	Introduction to Research and Research Ethics Review and analysis of the 1979 Belmont Report Introduction to the roles and responsibilities of established FDA agencies Introduction to qualitative and quantitative research	Student Introductions Discussion Forum: FDA Website Critique Assignment #1- Outcomes Research Assignment #2- Belmont Report (Ethics) CITI Human Subjects Research Training
8/31	Chatburn Textbook: Chapter-4 The Scientific Method Chapter-5 Developing the Study Idea Chapter-6 Reviewing the Literature Instructor Micro-lecture: "Hypothesis Testing and Independent/Dependent Variables"	Protocol Background and Rationale Development Hypothesis Testing Concepts Effective Literature Search Strategies	Assignment: Research Background and Rationale Discussion Forum #1-Hypothesis Testing Discussion Forum #2-Literature Search Complete Quiz-#1 (Parts A and B)
9/7	Chatburn Textbook: Chapter-7 Designing the Experiment Chapter-8 Steps to Implementation Instructor Micro-lecture #1: "Informed Consent" Instructor Micro-lecture #2: "Research Goals, Objectives, and Inclusion/Exclusion Criteria" Instructor Micro-lecture #3: "Research Designs and Informed Consent"	Minimal Risk-Greater than Minimal Risk Research Informed Consent Document and Process Developing Inclusion/Exclusion Criteria	Discussion Forum: Minimal Risk-Greater than Minimal Risk Assignment #1 Informed Consent Document Assignment #2 Inclusion/Exclusion Criteria
9/14	Chatburn Textbook: Chapter-9 Making Measurements Chapter-10 Basic Statistical Concepts Instructor Micro-lecture #1 "Participant Selection in Quantitative and Qualitative Research" Instructor Micro-lecture #2 "Sampling Techniques and Participant Selection in Quantitative Research" Instructor Micro-lecture #3 "Understanding the Measurement of p-Values in Research" Video Presentation-"Basic Statistical Concepts"	Fundamental Statistical Concepts Quantitative and Qualitative Research Concepts Participant Selection in Research	MSPPT slide presentation: Descriptive and Inferential Statistics Assignment: Statistical vs Clinical Significance Complete Quiz-#2 (Parts A and B)
9/21	Chatburn Textbook: Chapter-11 Statistical Methods for Nominal Measures Instructor Micro-lecture #1 "Statistical Methodologies" Instructor Micro-lecture #2 "Understanding Bias and Confounding Variables"	Nominal Research Measures Statistical Methodologies Study Bias Types Understanding Confounding Variables Reliability, Validity and Credibility Concepts	Discussion Forum: Reliability, Validity and Credibility Research Protocol Data Analysis Plan (DAP)
9/28	Chatburn Textbook: Chapter-15 The Abstract Chapter-16 The Case Report Video Presentation #1-"Meta-analysis" Video Presentation #2-The Case Report	Developing Research Abstracts Introduction to Meta-analysis Research Case Studies	Assignment #1-Final Research Protocol Assignment #2-IRB Application submission Complete Quiz-#3 (Parts A and B)

10/5	Chatburn Textbook: Chapter-17 The Poster Presentation Instructor micro-lecture: "How to Develop an Effective PowerPoint Presentation" Video Presentation: "Case Presentations"	Research Article Critiques Effective PowerPoint Presentations Research Presentations: Effective Strategies	Assignment: MSPPT Slide Presentation- "Final Research Protocol" Discussion Forum: Research Article Critiques Complete Quiz-#4 (Parts A and B)
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