

課程資訊 (Course Information)			
科號 Course Number	KHCT500204	學分 Credit	2
中文名稱 Course Title	研究方法-量化研究 (英語授課)	人數限制 Size of Limit	
英文名稱 Course English Title	Quantitative Research Methods		
任課教師 Instructor	李元萱		
上課時間 Time		上課教室 Room	

1. Course Description:

This course provides an introduction to the various quantitative methods in social and educational research. It will cover topics including the formulation of research ideas, hypotheses and research questions, the rationale and foundation of theoretical framework, the collection and analysis of quantitative data, and the reliability and validity of the instrument. Emphasis will also be placed on various research techniques such as experimentation, sampling, survey research, and quantitative analysis that are central to researchers in the social and educational sciences. Students are expected to understand, apply, and critically evaluate the different quantitative research methods and the corresponding statistical techniques in terms of the appropriateness of adopted methods and the alternative methods.

2. **Text Books and reference materials:** course handouts, and assigned readings

3. **Teaching Method:** Lectures, student presentation, issue discussion

4. Evaluation and Assessment

A. Research proposal: 30%:

B. Midterm: 30%

C. Participation: quiz, preview, review, peer facilitation, and discussion: 20%

D. Journal article presentation 20%: Present the journal article and submit the written summary and critique (1 article per person)

5. Tentative schedule

Week/d ate	Content description	Assigned readings/materials
Week 1:	Course introduction: Self-introduction: background, research interest, hobbies, relevant experiences...etc.	
Week 2:	SCIENTIFIC UNDERSTANDING OF BEHAVIOR	Ch1
Week 3:	Research ideas	Ch2 The Components of a Research Article 1.1-1.3

Week 4: 3/24	ETHICS IN BEHAVIORAL RESEARCH Share your findings from the previous week.	Ch4 no meeting. Take the REE course in https://ethics.moe.edu.tw/ Be prepared to share your experiences on this website Self-study on APA style of writing: https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html
Week 5:	Defining and measuring variables	Ch3 --- The Components of a Research Article 2.2
Week 6:	Selecting research participants	Ch5 -- 2018_Dudovitz et al. The Components of a Research Article 2.1
Week 7:	Research strategies and validity	Ch6 - 2014_Schueler et al The Components of a Research Article 2.3
Week 8:	The experimental research strategies and the between-subject design	Ch7 、 Ch8 2010_Jairam_Kiewra_SOAR_JEP.pdf (ANOVA) The Components of a Research Article-3 Results
Week 9:	EXPERIMENTAL DESIGN: Within-subjects design	Ch9 Lovino et al. 2016 (Repeated-measures ANOVA) The Components of a Research Article-3 Results
Week 10	Midterm exam	
Week 11	Non experimental and quasi-experimental strategies	Ch10 2018_Lee The Components of a Research Article-3 Results
Week 12	Factorial design	Ch11 2018_Wu & Xie The Components of a Research Article-3 Results
Week 13	Correlational research strategies	Ch12 2010_Fernado et al The Components of a Research Article-3 Results
Week 14	Descriptive research strategies	CH13 2017_Khan The Components of a Research Article-3 Results
Week 15	Statistical evaluation of data	Ch15 The Components of a Research Article-3 Results
Week 16	Final presentation	
Week 17	Proposal due	Submit your final proposal
Week 18	Buffer	The Components of a Research Article-Complete

2. Textbook

- Gravetter, F. & Forzano, L.B. (2018) *Research Methods for the Behavioral Science*. Wadsworth Pub Co.

3. References

- APA (2020). *Publication manual of the American Psychological Association*, Seventh Edition, Washington, DC. USA.