

National Taiwan University
School and Graduate Institute of Physical Therapy
Course Syllabus in Applied Statistics / 2010

Course Number: lecture (428 M2120, 3 credit hours)

Course Name: Applied Statistics

Course Credit: 3 credit

Instructors: Jiu-jenq Lin (principal instructor), Huei-Ming Chai

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Year Level: Graduate students, no audit allowed.

Schedule & Place : Tuesday morning (8:10—11:10), room 210

Course Description:

This course introduces the basic statistical methods including descriptive statistics, hypothesis testing, and analysis of variance applied in Physical Therapy research. Instead of statistical calculations, the focus is on the interpretation of the statistical results.

General Objectives of the Course:

After completing this course, the students would be able to

1. understand the common statistical methods applied in Physical Therapy.
2. independently calculate and interpret the results of statistical methods using SPSS or SAS programs.
3. have the ability to apply statistical methods to evaluate the research articles.

Contents:

Time	Topic	Instructor
9/14	Course Introduction	Jiu-jenq Lin
9/21	Descriptive statistics I Ch. 17(P) 2(H)	Jiu-jenq Lin
9/28	Descriptive statistics II Ch. 17(P) 2(H)	Jiu-jenq Lin
10/5	Hypothesis testing I Ch. 18(P) 7and 8(H)	Jiu-jenq Lin
10/12	Hypothesis testing II Ch. 18(P) 7and 8(H)	Jiu-jenq Lin
10/19	T-test Ch. 19(P) 10(H)	Jiu-jenq Lin
10/26	ANOVA I Ch. 20 and 21(P) 11-14(H)	Jiu-jenq Lin
11/2	ANOVA II Ch. 20 and 21(P) 11-14(H)	Jiu-jenq Lin
11/9	Mid-term Exam	Jiu-jenq Lin
11/16	RMANOVA I Ch. 20 and 21(P) 11-14(H)	Jiu-jenq Lin
11/23	RMANOVA II Ch. 20 and 21(P) 11-14(H)	Jiu-jenq Lin
11/30	SAS Software I	Huei-Ming Chai
12/7	SAS Software II	Huei-Ming Chai
12/14	Student Presentation I	Jiu-jenq Lin, Huei-Ming Chai
12/21	Student Presentation II	Jiu-jenq Lin, Huei-Ming Chai
12/28	Student Presentation III	Jiu-jenq Lin, Huei-Ming Chai
1/4	Critique	Jiu-jenq Lin

Textbooks and References

1. Portney LG, Watkins MP. Foundations of clinical research: Applications to practice. 3rd ed. Upper Saddle River: Prentice-Hall, Inc., 2009.
2. Huck SW. Reading statistics and research. 5th ed. Addison Wesley Longman, Inc., 2008.

Grading System:

mid-term examination 40%, homework 20%, final report 40%