<div align="center">**Survival Analysis I**   **Spring, 2024**</div>

Instructor :   Yi-Kuan Tseng

Office :   M 507

Office Hours: by appointment.

Lecture :   Mon. 2:00 – 4:50

Course Website: http://www.stat.ncu.edu.tw/teacher/Tsengyk/survival.html

Textbook :   Klein and Moeschberger (2003). Survival analysis 2nd Ed., Springer, ISBN : 038795399X

Reference book: 1.   Applied survival analysis**,** by Hosmer and Lemeshow **,** ISBN : 0471154105

                  2.   Modeling survival data, by Therneau and Grambsch ISBN : 0387987843

                  3. The statistical analysis of failure time data 2nd Ed., by Kalbfleisch and Prentice. ISBN: 0130338516

             *4.   **Survival analysis, by Kleinbaum. ISBN: 0387945431**

Topics :   **1**. Introduction to basic survival analysis, Chapter 2.

                  2. Discussion of censoring and truncation, likelihood construction and development of maximum likelihood method for making inferences, Chapter 3.

                  3. Regression analysis of survival data based on accelerated failure time model. Discussion of parametric and nonparametric versions of the model, Chapter 12.

                  4. Nonparametric inference for survival and hazard function based on single sample data. Chapter 4, 6 and 7

                  5. Proportional hazard model including discussion of partial likelihood. Chapter 8 and 9.

                  6. Methods for determining parametric and nonparametric model adequacy. Chapter 11.

Grading Policy: Attendance/homework   20%

                     Midterm/ project   35%

                     Final Exam/Project   45%