

科目：統計方法(Statistical Methods)(含迴歸分析、實驗設計及多變量分析)

- 參考書：
1. Neter, Kutner, Nachtsheim & Wasserman, 1996, Applied Linear Regression Models, 3rd. ed, Irwin, I.L.
 2. Montgomery & Peck, 1991, Introduction to Linear Regression Analysis, 2nd ed, Wiley, N.Y.
 3. Montgomery, Douglas C., 1997, Design & Analysis of Experiments, 4th. Edition. Wiley, N.Y.
 4. R. A. Johnson & D. W. Wichern, 1992, Applied Multivariate statistical Analysis, 3rd ed, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
 5. Rencher A. C., 1995, Methods of Multivariate Analysis, Wiley, New York.

Topics in Regression :

1. Multiple linear regression.
2. Model diagnosis.
3. Model selection.
4. Nonlinear regression.
5. Generalized linear models.

Topics in Design of Experiments :

1. Completely randomized design.
2. Randomized complete block design.
3. Nested factorial designs.
4. Latin square type designs.
5. Incomplete block designs.
6. 2 and 3 factorial designs.
7. Fractional factorial designs.
8. Response surface methodology.

Topics in Multivariate Analysis :

1. The multivariate normal and related distributions.
2. Inferences about multivariate means.
3. Multivariate linear regression models.
4. Principal components.
5. Factor analysis.
6. Discrimination and classification .
7. Clustering.