



Satuan Acara Pengajaran

SCBI602003 - Biometrika

Pengajar

Drs. Wisnu Wardhana M.Si.

Tujuan Perkuliahan

Mahasiswa mengetahui batasan dan ruang lingkup biometrika, memahami persyaratan penggunaan uji statistik serta mampu menerapkan berbagai metode statistika untuk memecahkan masalah biologi.

Minggu 1

Materi Batasan dan ruang lingkup biometrika.

Media White board, LCD, PC/Laptop & digital hand out.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Zar, J.H. 1974. Biostatitistical analysis. Prentice-Hall Inc., New York.

Aktivitas Tatap muka & diskusi kelas.

Minggu 2

Materi Statistika parametrik.

Media White board, LCD, PC/Laptop & digital hand out.

- Referensi** Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
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Aktivitas Tatap muka & diskusi kelas.

Minggu 3

Materi Batasan dan prasyarat penggunaan metoda statistika parameterik dan non-parametrik: Uji normalitas dan uji homogenitas.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

- Referensi** Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.
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Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 4

Materi Teknik pengujian beda nilai rata-rata.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Zar, J.H. 1974. Biostatitistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 5

Materi Analisis variansi (Anava parametrik) satu faktor.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Zar, J.H. 1974. Biostatitistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 6

Materi Analisis variansi (Anava parametrik) dua faktor / anava faktorial.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

- Referensi** Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
-

Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 7

Materi Uji perbandingan berganda berencana.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

- Referensi** Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.
-

Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 8

Materi Ujian Tengah Semester (UTS)

Media Kertas soal, kertas buram, kalkulator, daftar tabel statistik dan lembar jawaban.

Referensi catatan & hand out

Aktivitas Evaluasi tertulis pokok bahasan ke 1 s/d 7

Minggu 9

Materi Uji perbandingan berganda tak berencana.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 10

Materi Uji korelasi, regresi linier berganda.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 11

Materi Uji asosiasi

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka, diskusi kelas, & latihan mengerjakan soal.

Minggu 12

Materi Statistika non parametrik.

Media White board, LCD projector, PC/Laptop, digital hand out (power point), & tabel statistik.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas

Minggu 13

Materi Uji regresi linier berganda, persamaan garis regresi; signifikansi koefisien regresi berganda.

Media Transparant sheet dan lembar kerja.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka latihan dan diskusi.

Minggu 14

Materi Asosiasi antar jenis biota: Asosiasi positif dan asosiasi negatif.

Media Transparant sheet dan lembar kerja.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka dan diskusi.

Minggu 15

Materi Metoda non-parameterik (anova by rank) yang lain: Aplikasi uji Wilcoxon dan uji Friedman

Media Transparant sheet dan lembar kerja.

Referensi Sokal, R.R. & F.J. Rohlf. 1986. Principles and practice of statistics in biological research. Freeman, San Fransisco.
Sokal, R.R. & F.J. Rohlf. 1973. Introduction to Biostatistics. W.H. Freeman & Co., San Fransisco
Steel, G.G.D. & J.H. Torrie. 1981. Principles and procedures of statistics: A biometrical approach. McGraw-Hill, New York.
Sugiyono. 1977. Statistika untuk penelitian. Alfabeta, Bandung.
Zar, J.H. 1974. Biostatistical analysis. Prentice-Hall Inc., New York.
Waite, S. 2000. Statistical ecology in practice: A guide to analyzing environmental and ecological field data. Pearson Education Ltd., Harlow.

Aktivitas Tatap muka, latihan dan diskusi.

Minggu 16

Materi Ujian Akhir Semester

Media Lembar soal, kertas buram, kalkulator, tabel statistik dan lembar jawaban.

Referensi

Aktivitas Ujian
