



Satuan Acara Pengajaran

ENMT800005 - Karakterisasi Material + Lab

Pengajar

Prof. Dr. Ir. Anne Zulfia Syahrial, M.Sc.

Minggu 1

Materi Pengenalan SAP
INTRODUKSI:
- Penjelasan SAP, Sistem Perkuliahan & penilaian
- Pengantar Pengujian Material

Media LCD

Referensi Untuk DT :

1. Davis, H.E, Troxell, G.E, Hauck, GFW. ?The Testing of Engineering Materials?, 1982
2. John, V.B, Engineering Materials, Macmillan, 1990
3. G.E. Dieter, Mechanical Metallurgy, 3rd edition, McGraw-Hill, 1986

Untuk NDT & SEM / TEM / XRD
? Davis, H.E, Troxell, G.E, Hauck, GFW. ?The Testing of Engineering Materials?, 1982
? Cullity, B.D. ? An Introduction of X-ray Diffraction?
? Hearle, JWS, Sparrow, JT, Cross PM, ?The Use of SEM?, Pergamon, 1972
? Louis Cart, ?Non Destructive Testing?, ASM, 1995
? ASM : Metallography

Aktivitas

Minggu 2

Materi - Peranan Pengujian
- Klasifikasi Sifat Material Teknik

Media LCD

Referensi ? Davis, H.E, Troxell, G.E, Hauck, GFW. ?The Testing of Engineering Materials?, 1982

Aktivitas

Minggu 3

Materi - Signifikansi Pengujian Material
- Spesifikasi Material Teknik
- Badan-badan Standarisasi Pengujian
- Prosedur Pengujian & Penyajian Hasil Uji

Media LCD

Referensi ? Davis, H.E, Troxell, G.E, Hauck, GFW. ?The Testing of Engineering Materials?, 1982

Aktivitas Kuliah and assigment

Minggu 4

Materi Advanced Metalography,
Optical Microscope dan microstructural nalysis
SEM

Media LCD

Referensi ? Hearle, JWS, Sparrow, JT, Cross PM, ?The Use of SEM?, Pergamon, 1972

Aktivitas Kuliah dan diskusi

Minggu 5

Materi Managemen, Analisa Data & Laporan (Report)

Media LCD

Referensi

Aktivitas

Minggu 6

Materi lanjutan and assignment

Media LCD

Referensi

Aktivitas

Minggu 7

Materi Review Sifat-sifat Mekanik Material

Media LCD

Referensi

1. Davis, H.E, Troxell, G.E, Hauck, GFW. ?The Testing of Engineering Materials?, 1982
2. John, V.B, Engineering Materials, Macmillan, 1990
3. G.E. Dieter, Mechanical Metallurgy, 3rd edition, McGraw-Hill, 1986

Aktivitas Kuliah dan diskusi

Minggu 8

Materi Uji tarik, Kekerasan dan Impak

Media LCD

Referensi

1. Davis, H.E, Troxell, G.E, Hauck, GFW. ?The Testing of Engineering Materials?, 1982
2. John, V.B, Engineering Materials, Macmillan, 1990
3. G.E. Dieter, Mechanical Metallurgy, 3rd edition, McGraw-Hill, 1986

Aktivitas Diskusi dan presentasi

Minggu 9

Materi Microstructure Analysis

Media LCD

Referensi

Aktivitas

Minggu 10

Materi Advanced Metalografi, SEM, EDAX

Media LCD

Referensi

Aktivitas

Minggu 11

Materi Review NDT

Media LCD

Referensi ? Louis Cart, ?Non Destructive Testing?, ASM, 1995

Aktivitas Kuliah dan diskusi

Minggu 12

Materi TEM and preparation, XRD

Media LCD

Referensi Journal, paper

Aktivitas
