Satuan Acara Pengajaran

MTC82151 - Metalurgi Fisik

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

Minggu 1

Materi	Pendahuluan, Teori atom, ikatan atom
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Kuliah, diskusi

Minggu 2

Materi	Cacat-cacat logam (crystal defects),
Media	LCD
Referensi	2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Kuliah dan diskusi

Minggu 3

Materi	Teori dislokasi : sisi dan ulir (edge and screw)
Media	LCD

Referensi	D. Hull and D.J. Bacon, Introduction to Dislocation 4 th.Ed., Butterworth-Heineman, 2001
Aktivitas	Kuliah dan diskusi

Minggu 4

Materi	Larutan padat subtitusi dan Intertisi : pengotor dan paduan
Media	LCD
Referensi	1. Smallman, R.E. and Bishop, R.J., Metal and Materials, Butterworth ? Heinemann, 1995 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Kuliah dan Diskusi, Tugas

Minggu 5

Materi	Phase Diagram Intro
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004
Aktivitas	Kuliah, presentasi

Minggu 6

Materi	Studi Kasus dan presentasi
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Diskusi kelompok

Minggu 7

Materi	Quiz dan studi kasus
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996 3. D. Hull and D.J. Bacon, Introduction to Dislocation 4 th.Ed., Butterworth-Heineman, 2001 4. Smallman, R.E. and Bishop, R.J., Metal and Materials, Butterworth ? Heinemann, 1995
Aktivitas	Diskusi dan presentasi

Minggu 8

Materi	Semua Materi Ajar UTS
Media	
Referensi	
Aktivitas	

Minggu 9

Materi	Teori deformasi elastis & plastis
Media	LCD
Referensi	1. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Kuliah, diskusi

Minggu 10

Materi	Lanjutan
Media	LCD

Referensi	1. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Diskusi dan latihan soal

Minggu 11

Materi	Sifat mekanik dan fisik logam
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Kuliah dan diskusi

Minggu 12

Materi	Sifat mekanik, Kekerasan dan Keausan
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Kuliah dan diskusi

Minggu 13

Materi	Sifar Mekanis : Fatik dan Creep
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Diskusi dan tugas

Minggu 14

Materi	Studi kasus dan Quiz
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Diskusi dan presentasi

Minggu 15

Materi	Studi kasus, Presentasi
Media	LCD
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996
Aktivitas	Presentasi dan diskusi kelompok

Minggu 16

Materi	Semua Materi setelah UTS Ujian Akhir
Media	
Referensi	1. Wiliam D Callister Jr, Materials Science and Engineering an Introduction, John Wiley and Sons, 2004 2. Robert W Cahn and Peter Haasen, Physical Metallurgy, Fourth, Revised Ehanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996 3. Smallman, R.E. and Bishop, R.J., Metal and Materials, Butterworth ? Heinemann, 1995
Aktivitas	