



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-Heinemann, 2001

Aktivitas Kuliah dan diskusi

Minggu 4

Materi Larutan padat substitusi 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 Enhanced 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 Enhanced Edition, Vol. I, ISBN 0 444 89 875 I, 1996

Aktivitas Diskusi kelompok

Minggu 7

Materi	Quiz dan studi kasus
Media	LCD
Referensi	<ol style="list-style-type: none"> 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 Enhanced 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 Enhanced 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 Enhanced 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 Enhanced 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	
