



**ANNA UNIVERSITY**  
**Chennai-25.**  
**Curriculum**

October 31, 2003

**Degree Name** B.E.(Full Time)    **Specialization** Metallurgical Engineering

Regulations 2001

**Semester No. 1**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
CM125	Chemistry I	3	0	0	100
GE131	Engineering Mechanics	3	1	0	100
L1	Language Elective I	3	1	0	100
MA131	Mathematics I	3	1	0	100
PH125	Physics I	3	0	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
CM126	Chemistry Lab	0	0	2	100
GE132	Computer Practice I	1	0	3	100
PH126	Physics Lab	0	0	2	100
GE133	Workshop Practice	0	0	4	100

**Total** 900

**Semester No. 2**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
EE151	Electrical Engineering	2	0	0	100
EC152	Electronics Engineering	2	0	2	100
MY131	Fuels, Furnaces and Refractories	3	0	0	100
L2	Language Elective II	3	1	0	100
PH135	Material Science	3	0	0	100
MA132	Mathematics II	3	1	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
GE135	Computer Practice II	1	0	3	100
GE134	Engineering Graphics	1	0	3	100

**Total** 800

**Semester No. 3**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY231	Elements of Physical Metallurgy	3	1	0	100
MY235	Machine Elements and Machining	3	0	0	100
MA231	Mathematics III	3	1	0	100
MY232	Metallurgical Thermodynamics	3	1	0	100
MY234	Mineral Benefication	3	0	0	100
MY233	Transport Phenomena	3	0	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY237	Mechanical Laboratory	0	0	4	100
MY236	Metallurgical Analysis and Fuels Laboratory	0	0	4	100

**Total** 800**Semester No. 4**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY242	Corrosion and Surface Engineering	3	0	0	100
MY239	Mechanical Behaviour and Testing of Materials	3	1	0	100
MY241	Non Ferrous Extraction Metallurgy	3	0	0	100
MY238	Phase Transformation and Mechanical Metallurgy	3	1	0	100
MA039	Probability and Statistics	3	1	0	100
MY240	Production of Iron	3	0	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY243	Mechanical Testing Laboratory	0	0	4	100
MY244	Metallography Laboratory	0	0	4	100

**Total** 800

**Semester No. 5**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
E1***	Elective I	3	0	0	100
MY334	Experimental Techniques in Metallurgy	3	0	0	100
MY333	Foundry Technology	3	0	0	100
MY332	Metal Forming	3	0	0	100
MA038	Numerical Methods	3	1	0	100
MY331	Production of Steel	3	0	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY336	Foundry Laboratory	0	0	4	100
MY337	Industrial and Field Training	0	0	4	100
MY335	Metal Forming Laboratory	0	0	4	100

**Total** 900**Semester No. 6**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY341	Composite Materials	3	0	0	100
E2***	Elective II	3	0	0	100
MY338	Heat Treatment	3	0	0	100
MY340	Polymers and Ceramics	3	0	0	100
MY342	Powder Metallurgy	3	0	0	100
MY339	Special Steels and Non Ferrous Alloys	3	0	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY344	Corrosion and Surface Engineering Laboratory	0	0	4	100
MY343	Heat Treatment Laboratory	0	0	4	100
MY345	Industrial / Field Training	0	0	4	100

**Total** 900

**Semester No. 7**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
E3***	Elective III	3	0	0	100
E4***	Elective IV	3	0	0	100
MY432	Metallurgical Failure Analysis	3	0	0	100
MY431	Non Destructive Testing	3	0	0	100
CE071	Principles of Environmental Science and Engineering	3	0	0	100
MF342	Process Planning and Cost Estimation	3	0	0	100
GE035	Professional Ethics	3	0	0	100
MY433	Welding Processes and Metallurgy	3	0	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY434	Non-Destructive Testing Lab	0	0	4	100
MY435	Welding Laboratory	0	0	4	100

**Total** 1000**Semester No. 8**

Theory

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
ME435	Engineering Management	3	0	0	100
MY436	Selection of Materials	3	0	0	100
GE406	Total Quality Management	3	0	0	100

Practical

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY437	Project Work	0	0	12	200

**Total** 500**TOTAL MARKS : 6600****List of Electives**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
IE332	Computer Integrated Manufacturing System	3	0	0	100
ME436	Operations Research	3	1	0	100
MF042	Product Design and Development	3	0	0	100
MF044	Finite Element Methods in Manufacturing	3	0	0	100

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>M</b>
MY001	X-Ray Diffraction and Electron Microscopy	3	0	0	100
MY002	Nuclear Materials	3	0	0	100
MY003	Metallurgy of Tool Materials	3	0	0	100
MY004	Special Casting Techniques	3	0	0	100
MY005	Special Welding Processes	3	0	0	100
MY006	Metallurgy of Castings	3	0	0	100
MY007	Advanced Surface Engineering	3	0	0	100
GE037	Intellectual Property Rights (IPR)	3	0	0	100
GE038	Indian Constitution and Society	3	0	0	100
HS053	Communication Skills for Engineers	2	0	2	100