

**SWAMI VIVEKANAND UNIVERSITY, SIRONJA,
SAGAR (M.P.)**



SYLLABUS

For
M.Tech. Advance Production System
Course Code :MTPE
Department of Mechanical
Faculty of Engineering

Duration of Course : 2 Year

Examination Mode : Yearly

Examination System : Grading

Swami Vivekanand University, Sironja Sagar
(M.P.)



Text Books

Reference Books

1. Armarego E.J:A. and Brown RH., "The machining of metals ", Prentice Hall
2. Battacharya," Theory of metal cutting ", NCB Agency
3. HMT Manual, "Non-traditional machining methods "
4. RichE. and KnightK, "Artificial Intelligence ", TMH
5. Pham D.7:, "Expert S~stems in ~ngineering ", IFS Publishers, Springer- Verlag
6. Durvent WR, "The Lithographic handbook ", Narosa Publishers, 1995.
7. Pandey P.S. and Shah N. "Modern Manufacturing Processes ", /980.
8. Sadasivan TA. and Sarathy D. "Cutting tools for Productive Machining ", Widia P



Text Books

Reference Books

1. Gideon Halevi and Roland D. Weill, "Principles of Process Planning ", A logical approach, Chapman & Hall, 1995.
2. Tien-Chien Chang, Richard A. Wysk, "An Introduction to automated process planning systems ",Prentice Hall, 1985.
3. Chang, T.C., " An Expert Process Planning System ", Prentice Hall, 1985.
4. Nanua Singh, "Systems Approach to Computer Intergrated Design and Manufacturing ", John Wiley & Sons, 1996.
5. Rao, "Computer Aided Manufacturing ", Tata McGraw Hill Publishing Co., 2000Hills.



lab-I (MTPE-0106)

Course Code	Title of the Paper	Periods Per week				Distribution of Marks									Grand Total (j= e+i)
		L	T	P	C	Theory				Total (e= a+c +d)	Practical			Total (i= f+h)	
						Max (a)	Min (b)	MS T (c)	TW (d)		Max (f)	Min (g)	TW (h)		
MTPE 0106	Lab-I	-	-	6	6	-	-	-	-	-	90	28	60	150	150

List of Experiments



lab-II (MTPE-0107)

Course Code	Title of the Paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)
		L	T	P	C	Theory				Total (e=a+c+d)	Practical			Total (i=f+h)	
						Max (a)	Min (b)	MS T (c)	TW (d)		Max (f)	Min (g)	TW (h)		
MTPE 0107	Lab-II	-	-	6	6	-	-	-	-	-	90	28	60	150	150

Course: MMTP-107 THERMAL ENGG. LAB – II

1. To Determine Volume Flow Rate for Low Speed Wind Tunnel using Pitot Tube.
2. To study Flow around Circular/Irregular Shaped Body.
3. Heat Balance Sheet for C.I./I.C Engines.
4. To find effect of compression ratio on I.C. Engine Performance.
5. Study of Experimental Facility on Steam Turbine.
6. To conduct Numerical Experiments with Software for exploration of problems relat



Reference Books

11. Hop W, Spearman M; Factory Physics; TMH
2. Charry S.N.; Production & Operations Management; TMH.
3. Chase, Acquilino, Production & Operations Management, TMH.
4. Eilon S. Production Planning and Control, McMillon Pub.
5. Vollmann; Mfg planning and control for SCM; TMH
6. Nahmias Steven; Production and Operations analysis; TMH
7. Bedi Kaniska; Production and Operations Management; Oxford Pub
8. Dobler & Lee, Purchasing & Materials Management, PHI.
9. Chitle A.K., Gupta R.C. Materials Management, PHI.
10. Monk Joseph; Schaum's outline of
Operations Management; McGraw Hill



Reference Books

1. Fu KS., Gonzalez R.C., and Lee C.S.G., "Robotics control, sensing, vision, and intelligence McGraw-Hill Book Co., 1987.
2. Klafter R.D., Chmielewski TA. and Negm IV. .. Robot Engineering An Intergrated approach Prentice Hall of India, New Delhi, 1994
3. Deb S.R., " Robotics Technology and Flexible Automation ", Tata McGraw-Hill Publishing Co., Ltd.. 1994.
4. Craig J..J. " Introduction to Robotics Mechanics and Control ". Addison-Wesley, 1999.
5. Groover MP.. "Industrial Robotics Technology: programming and application. McGraw-Hill Book



Lab-III (MTPE-0206)

Course Code	Title of the Paper	Periods Per week				Distribution of Marks									Grand Total (j= e+i)
		L	T	P	C	Theory				Total (e= a+c+d)	Practical			Total (i= f+h)	
						Max (a)	Min (b)	MS T (c)	TW (d)		Max (f)	Min (g)	TW (h)		
MTPE 0206	Lab-III	-	-	6	6	-	-	-	-	-	90	28	60	150	150



Lab-IV (MTPE-0207)

Course Code	Title of the Paper	Periods Per week				Distribution of Marks									Grand Total (j= e+i)
		L	T	P	C	Theory				Total (e= a+c+d)	Practical			Total (i= f+h)	
						Max (a)	Min (b)	MS T (c)	TW (d)		Max (f)	Min (g)	TW (h)		
MTPE 0207	Lab-IV	-	-	6	6	-	-	-	-	-	90	28	60	150	150



Reference Books

1. HMT. Mechatronics. Tata McGraw-Hill Publishing Company Limited, New Delhi
2. James Madison. "CNC Machining Hand Book ". Industrial Press Inc.. 1996.
3. Steve Krar, Arthur Gill. "CNC Technology and Programming ", McGraw-Hill
4. Berry Leathan, Jones, Introduction to Computer Numerical Control, Pitman. London
4. Hans B.Kiej, 7:Fredericx Waters, "Computer Numerical Control ", MacMillan McGraw
- 5, Bernard Hodgers, "CNC Part Programming Work Book ". cizv and Guid, Macmillan
6. David Gribbs, "An Introduction to CNC Machining ", Ca,\'".\ell, /9R7,
- 7, Sadasivan. 7:A, and .S'arathy, D., "Cutting Tools for Productive Machining, Widia P
8. Radhakrishnan. P. "Computer Numerical Control Machines ". New Central Book Ag
9. Peter Smid, "CNC Programming Hand Book ", Industrial Press Inc., 2000.Web



MTPE-0401 Dissertation Part- II

Course Code	Title of the Paper	Periods Per week				Distribution of Marks							Grand Total (i= d+h)	
		L	T	P	C	Theory		MST (c)	Total (d= a+c)	Practical		TW (g)		Total (h= e+g)
						Max (a)	Min (b)			Max (e)	Min (f)			
MTPE-0401	Dissertation Part- II			20	20					300		200	500	500
	Total			20	20					300		200	500	500