



स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ

नांदेड - ४३१६०६ (महाराष्ट्र)

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY

NANDED-431606, MAHARASHTRA STATE, INDIA.

Established on 17th September 1994 - Recognized by the UGC U/s 2(f) and 12(B), NAAC Re-accredited with 'A' Grade



**ACADEMIC (1-BOARD OF STUDIES) SECTION**

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अभियांत्रिकी विद्याशाखेतील पदवी तृतीय वर्षाच्या अभ्यासक्रमांचे Course Structure शैक्षणिक वर्ष २०१६-१७ पासून लागू करण्याबाबत.

**प रि प त्र क**

या परिपत्रकान्वये सर्व संबंधितांना कळविण्यात येते की, प्रस्तुत विद्यापीठाच्या अभियांत्रिकी विद्याशाखेतील खालील पदवी तृतीय वर्षाच्या (CGPA) अभियांत्रिकी शाखांच्या अभ्यासक्रमांचे Course Structure शैक्षणिक वर्ष २०१६-१७ पासून लागू करण्यात येत आहे.

- |   |                                    |
|---|------------------------------------|
| (1) Mechanical Engineering                      | (2) Computer Science & Engineering |
| (3) Electronics & Telecommunication Engineering | (4) Civil Engineering              |
| (5) Information & Technology                    | (6) Electrical Engineering         |

सदरील Course Structure व परिपत्रक प्रस्तुत विद्यापीठाच्या [www.srtmun.ac.in](http://www.srtmun.ac.in) या संकेतस्थळावर उपलब्ध आहेत. तरी सदरील बाब ही सर्व संबंधितांच्या निदर्शनास आणून द्यावी.

'ज्ञानतीर्थ' परिसर,  
विष्णुपुरी, नांदेड - ४३१ ६०६.

जा.क्र.: शैक्षणिक-०१/परिपत्रक/अभियांत्रिकी-कोर्स स्ट्रक्चर  
२०१६-१७/१६८

दिनांक : १९.०८.२०१६.

  
संचालक  
महाविद्यालय व विद्यापीठ विकास मंडळ

प्रत माहिती व पुढील कार्यवाहीस्तव :

- १) मा. कुलसचिव यांचे कार्यालय, प्रस्तुत विद्यापीठ.
- २) मा. परीक्षा नियंत्रक यांचे कार्यालय, प्रस्तुत विद्यापीठ.
- ३) प्राचार्य, सर्व संबंधित संलग्नित महाविद्यालये, प्रस्तुत विद्यापीठ.
- ४) उपकुलसचिव, पदव्युत्तर विभाग, प्रस्तुत विद्यापीठ.
- ५) साहाय्यक कुलसचिव, पात्रता विभाग, प्रस्तुत विद्यापीठ.
- ६) सिस्टम एक्सपर्ट, यू.जी.सी. कक्ष, प्रस्तुत विद्यापीठ.

# **Swami Ramanand Teerth Marathwada University, Nanded**

## **Total Credits of Computer Science and Engineering**

<b>SE CSE SEM III</b>	<b>15 + 5 = 20</b>
<b>SE CSE SEM IV</b>	<b>15 + 6 = 21</b>
<b>TE CSE SEM V</b>	<b>15 + 6 = 21</b>
<b>TE CSE SEM VI</b>	<b>15 + 7 = 22</b>
<b>BE CSE SEM VII</b>	<b>15 + 9 = 24</b>
<b>BE CSE SEM VII</b>	<b>15 + 9 = 24</b>

**Total Credits = 132 + 41 FE = 173**

# Swami Ramanand Teerth Marathwada University, Nanded

## Teaching and Evaluation Scheme for Second Year Program in Computer Science & Engineering and Information Technology

**Semester - III**  
Effective from 2016-2017

Course Code	Course Name	Teaching Scheme			Credit Structure		
		L	T	P	T	P	Total
CI201	Engineering Mathematics - III	03	01	--	03	--	03
CI202	Discrete Mathematics	03	01	-	03	-	03
CI203	Data Structures	04	-	04	03	02	05
CI204	Digital Systems	04	-	02	03	01	04
CI205	Engineering Economics	03	-	-	03	-	03
CI206	Programming Lab-I	02	-	02	-	02	02
CI207	Professional Communication Skills	02 AUDIT	-	02	-	-	-
<b>Total</b>		21	02	10	15	05	20

**Total Credits : 20**  
**Total Contact Hours/Week: 33**

Note :

- Prefix "CI" Courses will be common for both CSE and IT Dept.

Evaluation Scheme					
Theory Credit Course		Theory Audit Course		Practical / Workshop	
ME	ESE	ME	ESE	Continuous Evaluation	ESE
20 M	80 M	10 M	40 M	30 M	70 M
Minimum for Passing in Theory, Audit and Practical / Workshop : 40% Each, ME – Minor Examination , ESE – End Semester Examination and CE - Continuous Evaluation					

# Swami Ramanand Teerth Marathwada University, Nanded

## Teaching and Evaluation Scheme for Second Year Program in Computer Science & Engineering and Information Technology

**Semester - IV**  
Effective from 2016-2017

Course Code	Course Name	Teaching Scheme			Credit Structure		
		L	T	P	T	P	Total
CI208	Microprocessors & Microcontrollers	04	-	02	03	01	04
CI209	Computer Algorithms	04	-	-	03	-	03
CI210	System Programming	04	-	-	03	-	03
CI211	Object Oriented Programming with C++	03	01	02	03	01	04
CI212	Numerical Methods & Scientific Computing	03	01	02	03	01	04
CI213	Programming Lab – II	-	-	02	-	01	01
CI214	Mini Project - I	-	-	02	-	02	02
<b>Total</b>		<b>18</b>	<b>02</b>	<b>10</b>	<b>15</b>	<b>06</b>	<b>21</b>

**Total Credits : 21**  
**Total Contact Hours/Week: 30**

Note :

- Prefix “CI” Courses will be common for both CSE and IT Dept.

Evaluation Scheme					
Theory Credit Course		Theory Audit Course		Practical / Workshop	
ME	ESE	ME	ESE	Continuous Evaluation	ESE
20 M	80 M	10 M	40 M	30 M	70 M
Minimum for Passing in Theory, Audit and Practical / Workshop : 40% Each, ME – Minor Examination, ESE – End Semester Examination and CE - Continuous Evaluation					

**Note: There should be Minor-I and Minor-II tests conducted on Unit No. :- 1,2 and Unit No. :- 3,4 respectively. Finally average of two tests should be considered.**

# Swami Ramanand Teerth Marathwada University, Nanded

## Teaching and Evaluation Scheme for Third Year Program in Computer Science & Engineering

**Semester - V**  
Effective from 2016-2017

Course Code	Course Name	Teaching Scheme			Credits		
		L	T	P	T	P	Total
CS301	Operating Systems	04	-	02	03	01	04
CS302	Automata Theory	03	01	-	03	-	03
CS303	Database Management Systems	04		02	03	01	04
CS304	Computer Organization and Architecture	04	-	-	03	-	03
CS30*	Elective - I	03	01	-	03	-	03
CS309	Programming Lab- III			04	-	02	02
CS310	Computer Hardware and Maintenance	-	-	02	-	02	02
<b>Total</b>		<b>18</b>	<b>02</b>	<b>10</b>	<b>15</b>	<b>06</b>	<b>21</b>

<b>CS30*</b>		<b>Elective - I</b>	
CS305	Information Theory and Coding		
CS306	JAVA Programming		
CS307	Number Theory		
CS308	Probability, Statistics and Combinatorics		

**Total Credits : 21**  
**Total Contact Hours/Week: 30**

<b>Evaluation Scheme</b>					
Theory Credit Course		Theory Audit Course		Practical / Workshop	
ME	ESE	ME	ESE	Continuous Evaluation	ESE
20 M	80 M	10 M	40 M	30 M	70 M
Minimum for Passing in Theory, Audit and Practical / Workshop : 40 % Each, ME – Minor Examination , ESE – End Semester Examination and CE - Continuous Evaluation					

# Swami Ramanand Teerth Marathwada University, Nanded

## Teaching and Evaluation Scheme for Third Year Program in Computer Science & Engineering Semester - VI

Effective from 2016-2017

Course Code	Course Name	Teaching Scheme			Credits		
		L	T	P	T	P	Total
CS311	Software Engineering	03	-		03		03
CS312	Compiler Design	03	01	-	03	-	03
CS313	Data Communication	04	-	02	03	01	04
CS314	UNIX Operating System	03	-	02	03	01	04
CS31*	Elective - II	03	01	02	03	01	04
CS319	Professional Aptitude and Logical Reasoning	02 AUDIT	-	-	-	-	-
CS320	Programming Lab-IV	03	-	02	-	02	02
CS321	Programming Lab-V	-	-	02	-	01	01
CS322	Seminar					01	01
<b>Total</b>		<b>21</b>	<b>02</b>	<b>10</b>	<b>15</b>	<b>07</b>	<b>22</b>

<b>CS31*</b>		<b>Elective - II</b>	
CS315	Digital Signal Processing		
CS316	Python Programming		
CS317	Linear Algebra		
CS318	Computer Simulation and Modeling		

**Total Credits : 22**  
**Total Contact Hours/Week: 33**

<b>Evaluation Scheme</b>					
<b>Theory Credit Course</b>		<b>Theory Audit Course</b>		<b>Practical / Workshop</b>	
ME	ESE	ME	ESE	Continuous Evaluation	ESE
20 M	80 M	10 M	40 M	30 M	70 M
Minimum for Passing in Theory, Audit and Practical / Workshop : 40 % Each, ME – Minor Examination , ESE – End Semester Examination and CE - Continuous Evaluation					

**Note: There should be Minor-I and Minor-II tests conducted on Unit No. :- 1,2 and Unit No. :- 3,4 respectively. Finally average of two tests should be considered.**

# Swami Ramanand Teerth Marathwada University, Nanded

## Teaching and Evaluation Scheme for Final Year Program in Computer Science & Engineering

**Semester - VII**  
Effective from 2017-2018

Course Code	Course	Teaching Scheme			Credits		
		L	T	P	T	P	Total
CS401	Computer Networks	04	-	02	04	01	05
CS402	Advanced Database Management Systems	04	-	02	04	01	05
CS40*	Elective – III	04	-	02	04	01	05
CS40*	Elective – IV	03	-	-	03	-	03
CS411	Behavioral Science	02 AUDIT	-	-	-	-	-
CS411	Programming Lab - VI	02	-	02	-	02	02
CS412	Project – A	-	-	04	-	03	03
CS413	Industrial Training /Internship/Reputed Certified Course/Mini Project - II	-	-	-	-	01	01
<b>Total</b>		19	-	12	15	09	24

Code	Elective - III
CS403	Data Mining
CS404	Embedded Systems
CS405	Computer Graphics
CS406	Image Processing

Code	Elective - IV
CS407	Software Testing and Quality Assurance
CS408	Business Intelligence
CS409	E-Commerce
CS410	Machine Learning

**Total Credits : 24**  
**Total Contact Hours/Week: 31**

Evaluation Scheme					
Theory Credit Course		Theory Audit Course		Practical / Workshop	
ME	ESE	ME	ESE	Continuous Evaluation	ESE
20 M	80 M	10 M	40 M	30 M	70 M
Minimum for Passing in Theory, Audit and Practical / Workshop : 40 % Each, ME – Minor Examination , ESE – End Semester Examination and CE - Continuous Evaluation					

# Swami Ramanand Teerth Marathwada University, Nanded

## Teaching and Evaluation Scheme for Final Year Program in Computer Science & Engineering

**Semester - VIII**  
Effective from 2017-2018

Course Code	Course	Teaching Scheme			Credits		
		L	T	P	T	P	Total
CS416	Mobile Computing	04	-	02	04	01	05
CS417	Cryptography and Network Security	04	-	02	04	01	05
CS41*	Elective - V	04	-	02	04	01	05
CS41*	Elective - VI	04	-	-	03	-	04
CS412	Open Source Technology Lab	02	-	02	-	02	02
CS413	Project - B	-	-	04	-	04	03
<b>Total</b>		<b>18</b>		<b>12</b>	<b>15</b>	<b>09</b>	<b>24</b>

Code	Elective - V
CS 421	Big Data Analytics
CS 422	Distributed Systems
CS 424	Computer Vision
CS 425	Cloud Computing

Code	Elective - VI
CS 421	Cyber Security
CS 422	Multimedia Systems and Applications
CS 423	Human Computer Interaction
CS 424	Information Processing and Retrieval

**Total Credits : 24**  
**Total Contact Hours/Week: 30**

Evaluation Scheme					
Theory Credit Course		Theory Audit Course		Practical / Workshop	
ME	ESE	ME	ESE	Continuous Evaluation	ESE
20 M	80 M	10 M	40 M	30 M	70 M
Minimum for Passing in Theory, Audit and Practical / Workshop : 40 % Each, ME – Minor Examination , ESE – End Semester Examination and CE - Continuous Evaluation					

**Note: There should be Minor-I and Minor-II tests conducted on Unit No. :- 1,2 and Unit No. :- 3,4 respectively. Finally average of two should be considered.**