

Savitribai Phule Pune University, Pune
Master of Computer Engineering (2017 Course)
 (with effect from June 2017)

Semester I

Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks					Credit	
		Theory	Practical	In-Sem	End-Sem	TW	OR/PRE	Total	TH	PR
510101	Research Methodology	04	--	50	50	--	--	100	04	--
510102	Bio-Inspired Optimization Algorithms	04	--	50	50	--	--	100	04	--
510103	Software Development and Version Control	04	--	50	50	--	--	100	04	--
510104	Embedded and Real Time Operating Systems	04	--	50	50	--	--	100	04	--
510105	Elective I	05	--	50	50	--	--	100	05	-
510106	Laboratory Proficiency I	--	08	--	--	50	50	100	--	04
Total Credit									21	04
Total		21	08	250	250	50	50	600	25	
510107	Non-Credit Course I								Grade	
<u>Elective I</u>										
510105A	Advanced Digital Signal Processing			510105B	Data Mining					
510105C	Network Design and Analysis			510105D	Data Algorithms					
510105E	Open Elective									

Semester II

Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks					Credit	
		Theory	Practical	In-Sem	End-Sem	TW	OR/PRE	Total	TH	PR
510108	Operations Research	04	--	50	50	--	--	100	04	--
510109	System Simulation and Modeling	04	--	50	50	--	--	100	04	--
510110	Machine Learning	04	--	50	50	--	--	100	04	--
510111	Elective II	05	--	50	50	--	--	100	05	--
510112	Seminar I		04	--	--	50	50	100	--	04
510113	Laboratory Proficiency II	--	08	--	--	50	50	100	--	04
Total Credit									17	08
Total		17	12	200	200	100	100	600	25	
510114	Non-Credit Course II								Grade	
<u>Elective II</u>										
510111A	Image Processing			510111B	Web Mining					
510111C	Pervasive and Ubiquitous Computing			510111D	Network Security					
510111E	Open Elective									

Abbreviations: TW: Term Work , TH: Theory, OR: Oral, PRE: Presentation, Sem: Semester

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<u>Semester III</u>										
Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks					Credit	
		Theory	Practical	In-Sem	End-Sem	TW	OR/PRE	Total	TH	PR
610101	Fault Tolerant Systems	04	--	50	50	--	--	100	04	--
610102	Information Retrieval	04	--	50	50	--	--	100	04	--
610103	Elective III	05	--	50	50	--	--	100	05	--
610104	Seminar II	--	04	--	--	50	50	100	--	04
610105	Dissertation Stage I	--	08	--	--	50	50	100	--	08
Total Credit									13	12
Total		13	12	150	150	100	100	500	25	
610106	Non-Credit Course III								Grade	
<u>Elective III</u>										
610103A	Cloud Security	610103B		Speech Signal Processing						
610103C	Mobile Ad-hoc Network	610103D		Pattern Recognition			610103E Open Elective			
<u>Semester IV</u>										
Course Code	Course	Teaching Scheme Hours / Week		Examination Scheme and Marks			Credit			
		Practical		TW	OR/PRE	Total	PR			
610107	Seminar III	05		50	50	100	05			
610108	Dissertation Stage II	20		150	50	200	20			
Total		25		200	100	300	25			
<u>Non-Credit Courses</u>										
<p>Typically curriculum is constituted by credit, non-credit and audit courses. These courses are offered as compulsory or elective. Non Credit Courses are compulsory. No grade points are associated with non-credit courses and are not accounted in the calculation of the performance indices SGPA & CGPA. However, the award of the degree is subject to obtain a PP grade for non credit courses. Conduction and assessment of performance in said course is to be done at institute level. The mode of the conduction and assessment can be decided by respective course instructor. Recommended but not limited to- (one or combination of) seminar, workshop, MOOC Course certification, mini project, lab assignments, lab/oral/written examination, field visit, field training. Examinee should submit report/journal of the same. Reports and documents of conduction and assessment in appropriate format are to be maintained at institute. <u>Result of assessment will be PP or NP</u>. Set of non-credit courses offered is provided. The Examinee has to select the relevant course from pool of courses offered. Course Instructor may offer beyond this list by seeking recommendation from SPPU authority. The selection of 3 distinct non-credit courses, one per semester (Semester I, II & III). The Contents of Non Credit Courses are Provided at page 63 onwards.</p> <p>Open Elective: The open elective is to invite the attention to multidisciplinary, interdisciplinary, exotic, employability or update to technology course. The institute may design the syllabus accordingly. However such designed syllabus needs to be approved by SPPU authority before implementation.</p>										
Recommended Set of Non-Credit Courses(510107, 510114, 610106):										
NCC1: Game Engineering				NCC2: Advanced Cognitive Computing						
NCC3: Reconfigurable Systems				NCC4: Convergence Technology						
NCC5: Machine Learning				NCC6: Storage Area Networks						
NCC7: Search Engine Optimization				NCC8: Virtual Reality						
NCC9: Machine Translation				NCC10: Infrastructure Management						