

ಸಂತ ಅಲೋಶಿಯಸ್ ಕಾಲೇಜು
(ಸ್ವಾಯತ್ತ)
ಮಂಗಳೂರು- 575 003



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Re-accredited by NAAC with 'A' Grade - CGPA 3.62
Recognised by UGC as "College with Potential for Excellence"
College with 'STAR STATUS' conferred by DBT, Government of India
3rd Rank in "Swacch Campus" Scheme, by MHRD, Govt of India

Date: 25-06-2020

NOTIFICATION

Sub: Syllabus of **M.Sc. Software Technology** under Choice Based Credit Scheme.

Ref: 1. Decision of the Academic Council meeting held on 09-06-2020 vide Agenda No: 6(2020-21)
2. Office Notification dated 25-06-2020

Pursuant to the above, the Syllabus of **M.Sc. Software Technology** under Choice Based Credit Scheme which was approved by the Academic Council at its meeting held on 09-06-2020 is hereby notified for implementation with effect from the academic year 2020-21.

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PRINCIPAL



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REGISTRAR

To:

1. The Chairman/Dean/HOD.
2. The Registrar Office
3. Library
4. PG Office

M.Sc. Software Technology
Scheme of Teaching || New CBCS Syllabus from 2020
I Semester

Subject Code	Subject Title	Type	Credits	Total No of Hours	Lecture Hrs / week	Tutorial Hrs / week	Practical Hrs / week	Self Study Hrs / week
PH 531.1	Data Structures and Analysis of Algorithms	HC	4	45	3	2	--	2
PH 532.1	Relational Database Management Systems	HC	4	45	3	2	--	2
PH 533.1	Object Oriented Programming with Java	HC	4	45	3	2	--	2
PH 534.1	Web Design with PHP and MySQL	HC	4	45	3	2	--	2
PH 535.1P	DBMS and Java Lab	HCL	3	90	--	(1 x 2) 2	(3 x 2) 6	--
PS 536.1P	Data Structures AOA & Web Design Lab	SCL	3	90	--	(1 x 2) 2	(3 x 2) 6	--
PS 537.1	Software Engineering with UML	SC	4	45	3	2	--	2
---	Technical Writing & Presentation	---	--	30	2	2	--	4
	Total		26		17	16	12	14

* HC – Hard Core SC – Soft Core HCL – Hard Core Lab SCL – Soft Core Lab OE – Open Elective

M.Sc. Software Technology - II Semester

SubjectCode	Subjec.t Title	Type	Credits	Total No of Hours	Lecture Hrs / week	Tutorial Hrs / week	Practical Hrs / week	Self Study Hrs / week
PH 531.2	Programing with Python	HC	4	45	3	2	--	2
PH 532.2	Mobile Application Development with Android	HC	4	45	3	2	--	2
PH 533.2P	Python and Android Lab	HCL	3	90	--	(1 x 2) 2	(3 x 2) 6	--
PS 534.2[E1]	Foundations of Data Science	SC	3	45	3	2	--	2
PS 534.2[E2]	Data Warehousing and Data Mining	SC	3	45	3	2	--	2
PS 535.2[E1]	Artificial Intelligence & Cognitive Computing	SC	3	45	3	2	--	2
PS 535.2[E2]	Machine Learning and Deep Learning	SC	3	45	3	2	--	2
PS 536.2P	Machine Learning and Data Science Lab	SCL	3	90	--	(1 x 2) 2	(3 x 2) 6	--
OPEN ELECTIVE – Offered to other Depts								
PO 537.2 (E1)	Enterprise Information System	SC	3 *	45	3	--	--	2
PO 537.2 (E2)	Marketing Analytics	SC	3 *	45	3	--	--	2
---	Technical Writing & Paper Presentation	---	--	30	--	4	--	4
	Total		20+3*		15	16	12	14

* HC – Hard Core SC – Soft Core HCL – Hard Core Lab SCL – Soft Core Lab OE – Open Elective

M.Sc. Software Technology - III Semester
M.Sc. Software Technology

III Semester

Subject Code	Subject Title	Type	Credits	Total No of Hours	Lecture Hrs / week	Tutorial Hrs / week	Practical Hrs / week	Self Study Hrs / week
PH 531.3	Cloud Computing with Amazon Web Services	HC	4	45	3	2	--	2
PH 532.3	Web Technologies and .NET Framework	HC	4	45	3	2	--	2
PH 533.3 P	AWS and .NET Lab	HCL	3	90	--	(1 x 2) 2	(3 x 2) 6	--
PS 534.3 [E1]	Internet of Things and Applications	SC	3	45	3	2	--	2
PS 534.3 [E2]	Natural Language Processing	SC	3	45	3	2	--	2
PS 535.3 [E1]	Big Data Analytics with Scala and Spark	SC	3	45	3	2	--	2
PS 535.3 [E2]	Big Data Analytics with MapReduce and Hadoop	SC	3	45	3	2	--	2
PS 536.3 P	Big Data Analytics and Research Lab	SCL	3	90	--	(1 x 2) 2	(3 x 2) 6	--
OPEN ELECTIVE - Offered to other Depts								
PO 537.3 (E1)	Social Media Analytics	SC	3 *	45	3	--	--	2
PO 537.3 (E2)	Streaming Analytics	SC	3 *	45	3	--	--	2
---	Technical Writing & Paper Presentation	---	--	30	--	4	--	4
	Total		20+3*		15	16	12	1

C - Hard Core SC - Soft Core HCL - Hard Core Lab SCL - Soft Core Lab OE - Open Elective

M.Sc. Software Technology IV Semester

Sl No	Subject Code	Subject Title	Credits	Max. Marks for Dissertation /Valuation		External Evaluation		Total
				Dissertation I	Dissertation II	Dissertation III	Max. Marks for Viva-voce (Final)	
1	PH 531.4/ PH 532.4/ PH 533.4/ PH 534.4	Industry Internship / Project Work	16	SRS & SDD (100)	Mid Term Evaluation (100)	Record Reading (100)	200	500
Sl No	Subject Code	Subject Title	Credits	Internal Evaluation		External Evaluation		Total
2	PS 535.4	Domain Knowledge Project	04	Assignments / Paper Presentation (50)		Documentation Viva Voce (100)		150
Grand Total			20	--				650

IV SEM - STRUCTURE FOR MARKS CARD PURPOSE ONLY

Sl No	Subject Code	Subject Title	Credits			Total
Industry Internship / Project Work						
1	PH 531.4	Dissertation I	4	SRS & SDD (100)	Internal Evaluation	500
2	PH 532.4	Dissertation II	4	Mid Term Evaluation (100)		
3	PH 533.4	Dissertation III	4	Record Reading (100)		
4	PH 534.4	Viva-voce	4	200	External Evaluation	
5	PS 535.4	Domain Knowledge Project	4	Assignments / Paper Presentation (50)	Internal Evaluation	150
				Documentation Viva Voce (100)	External Evaluation	
Total			20			650

Scheme of Examination || New CBCS Syllabus from 2020

M.Sc. Software Technology

I Semester

Subject Code	Subject Title	Type	Credits	Theory Exam duration (hours)	Practical Exam duration (hours)	Max Marks for Internal Assessment	Max. Marks for Term End Exam	Total
PH 531.1	Data Structures and Analysis of Algorithms	HC	4	3	--	30	70	100
PH 532.1	Relational Database Management Systems	HC	4	3	--	30	70	100
PH 533.1	Object Oriented Programming with Java	HC	4	3	--	30	70	100
PH 534.1	Web Design with PHP and MySQL	HC	4	3	--	30	70	100
PH 535.1 P	DBMS and Java Lab	HCL	3	--	3	25	50	75
PH 536.1P	Data Structures AOA & Web Design Lab	HCL	3	--	3	25	50	75
PS 537.1	Software Engineering with UML	SC	4	3	--	30	70	100
---	Technical Writing & Presentation	AON	--	--	--	--	-	--
Total			26			200	450	650

HC – Hard Core SC – Soft Core HCL – Hard Core Lab SCL – Soft Core Lab OE – Open Elective

AON – Add On

II Semester

Sl No	Subject Code	Subject Title	Type	Credits	Theory Exam duration (hours)	Practical Exam duration (hours)	Max Marks for Internal Assessment	Max. Marks for Term End Exam	Total Marks
1	PH 531.2	Programming with Python	HC	4	3	--	30	70	100
2	PH 532.2	Mobile Application Development with Android	HC	4	3	--	30	70	100
3	PH 533.2 P	Python and Android Lab	HCL	3	--	3	25	50	75
4	PS 534.2 [E1]	Foundations of Data Science	SC	3	3	--	30	70	100
5	PS 534.2 [E2]	Data Warehousing and Data Mining	SC	3	3	--	30	70	100
6	PS 535.2 [E1]	Artificial Intelligence & Cognitive Computing	SC	3	3	--	30	70	100
7	PS 535.2 [E2]	Machine Learning and Deep Learning	SC	3	3	--	30	70	100
8	PS 536.2 P	Machine Learning and Data Science Lab	SCL	3	--	3	25	50	75
OPEN ELECTIVE - Offered to other Depts									
9	PO 537.2 (E1)	Enterprise Information System	SC	3 *	3	--	30	70	100
10	PO 537.2 (E2)	Marketing Analytics	SC	3 *	3	--	30	70	100
11	---	Technical Writing & Paper Presentation	AON	--	--	--	--	--	--
		Total		20+3*			200	450	650

HC - Hard Core SC - Soft Core HCL - Hard Core Lab SCL - Soft Core Lab OE - Open Elective

AON - Add On

M.Sc. Software Technology

III Semester

Sl No	Subject Code	Subject Title	Type	Credits	Theory Exam duration (hours)	Practical Exam duration (hours)	Max Marks for Internal Assessment	Max. Marks for Term End Exam	Total Marks
1	PH 531.3	Cloud Computing with Amazon Web Services	HC	4	3	--	30	70	100
2	PH 532.3	Web Technologies and .NET Framework	HC	4	3	--	30	70	100
3	PH 533.3 P	AWS and .NET Lab	HCL	3	--	3	25	50	75
4	PS 534.3 [E1]	Internet of Things and Applications	SC	3	3	--	30	70	100
5	PS 534.3 [E2]	Natural Language Processing	SC	3	3	--	30	70	100
6	PS 535.3 [E1]	Big Data Analytics With Scala And Spark	SC	3	3	--	30	70	100
7	PS 535.3 [E2]	Big Data Analytics with MapReduce and Hadoop	SC	3	3	--	30	70	100
8	PS 536.3 P	Big Data Analytics and Research Lab	SCL	3	--	3	25	50	75
OPEN ELECTIVE – Offered to other Depts									
9	PO 537.3 (E1)	Social Media Analytics	SC	3 *	3	--	30	70	100
10	PO 537.3 (E2)	Streaming Analytics	SC	3 *	3	--	30	70	100
11	---	Technical Writing & Paper Presentation	AON	--	--	--	--	--	--
		Total		20+3*			200	450	650

HC – Hard Core SC – Soft Core HCL – Hard Core Lab SCL – Soft Core Lab OE – Open Elective

AON – Add On

SI No	Subject Code	Subject Title	Credits	Max. Marks for Dissertation / Valuation		External Evaluation		Total
				Dissertation I	Dissertation II	Dissertation III	Max. Marks for Viva-voce (Final)	
1	PH 531.4/ PH 532.4/ PH 533.4/ PH 534.4	Industry Internship / Project Work	16	SRS & SDD (100)	Mid Term Evaluation (100)	Record Reading (100)	200	500
SI No	Subject Code	Subject Title	Credits	Internal Evaluation		External Evaluation		Total
2	PS 535.4	Domain Knowledge Project	04	Assignments / Paper Presentation (50)		Documentation/ Viva Voce (100)		150
								650

Sl No	Subject Code	Subject Title	Credits			Total
Industry Internship / Project Work						
1	PH 531.4	Dissertation I	4	SRS & SDD (100)	Internal Evaluation	500
2	PH 532.4	Dissertation II	4	Mid Term Evaluation (100)		
3	PH 533.4	Dissertation III	4	Record Reading (100)		
4	PH 534.4	Viva-voce	4	200		
5	PS 535.4	Domain Knowledge Project	4	Assignments / Paper Presentation (50)	Internal Evaluation	150
				Documentation Viva Voce (100)	External Evaluation	
Total			20			650