



# VAAGDEVI DEGREE & PG COLLEGE

**DIST: HANUMAKONDA, TELANGANA STATE-506001**

*(Affiliated to Kakatiya University, Warangal)*

(e-mail: [contact@vaagdevicolleges.com](mailto:contact@vaagdevicolleges.com))

website: [www.vaagdevicolleges.com](http://www.vaagdevicolleges.com) )



## 1.2.1 Percentage of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented

Number of Programmes in Which CBCS/Elective course system implemented:

Academic Year	Number of Programmes offered by the College	Number of Programmes with CBCS/Elective System	Percentage of Programmes with CBCS/Elective System
2023-2024	44	44	100

  
**Principal**  
Vaagdevi Degree & PG College  
Kishanpura, Hanamkonda

**Proceedings of the Registrar, Kakatiya University, Warangal  
regarding the implementation of CBCS in all the UG Colleges  
from the academic year 2016-17**

PROF. KHAJA ALTHAF HUSSAIN  
REGISTRAR



OFFICE OF THE REGISTRAR  
KAKATIYA UNIVERSITY  
WARANGAL - 506 009

No. 199 /B2/KU/2016

Date: 2-02-2016

To

The Principals of University & Affiliated Colleges  
Offering U.G. (Professional & Non-Professional) courses  
KAKATIYA UNIVERSITY

Sub:- Implementation of Choice Based Credit System in U.G. (Professional & Non-Professional) courses from the academic year 2016-2017 - Regarding.

Sir/Madam,

The Higher Education Department, Government of Telangana on the directions of M.H.R.D. deliberated at various levels and took a decision making the implementation of Choice Based Credit System mandatory at UG level for all Colleges.

In view of this, it is to inform you in advance that the implementation of CBCS is mandatory in all U.G. courses (Professional & Non-Professional) in all Colleges under the jurisdiction of Kakatiya University from the academic year 2016-2017.

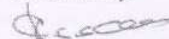
Therefore, it is to bring it to the notice of the Managements and Principals to bring awareness among all the stake holders by downloading the relevant material from UGC website and also Kakatiya University website.

In this connection, a meeting of Principals of all the Under-Graduate (Non-Professional) colleges is convened on 14<sup>th</sup> March, 2016 at 10.30 a.m. in the Senate Hall of Administrative Building on the University campus to discuss (i) Implementation of Choice Based Credit System (ii) Uploading of D.C.F.-II form of All India Survey on Higher Education (AISHE) portal.

The out-station members shall paid TA & DA as per norms from the provision of "20% Registration Fee" kept at the disposal of the respective colleges for academic activities.

Kindly make it convenient to attend the meeting without fail.

Yours faithfully,

  
REGISTRAR

**B.COM (Business Analytics)**  
**CBCS COURSE STRUCTURE**  
**w.e.f. 2020-'21**

Sl.No.	Code	Course Title	HPW	Credits	Exam Hrs	Marks
(1)	(2)	(3)	(5)	(6)	(7)	(8)
		<b>SEMESTER – I</b>				
1.	ELS1	English (First Language)	4	4		
2.	SLS1	Second Language	4	4		
3.	AECC1	a)Environmental Science/ b)Basic Computer Skills	2	2		
4.	DSC101	Financial Accounting-I	5	5	3 hrs	80U+20I
5.	DSC102	Business Organization and Management	5	5	3 hrs	80U+20I
6.	DSC103	Data-driven Decision Making	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		
		<b>SEMESTER – II</b>				
7.	ELS2	English (First Language)	4	4		
8.	SLS2	Second Language	4	4		
9.	AECC2	a)Basic Computer Skills/ b)Environmental Science	2	2		
10.	DSC201	Financial Accounting-II	5	5	3 hrs	80U+20I
11.	DSC202	Business Laws	5	5	3 hrs	80U+20I
12.	DSC203	Data Analytics Essentials	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		
		<b>SEMESTER – III</b>				
13.	ELS3	English (First Language)	3	3		
14.	SLS3	Second Language	3	3		
15.	SEC1	a)Principles of Insurance/ b)Foundation of Digital Marketing/ c)Fundamentals of Business Analytics	2	2	1 ½ hrs	40U+10I
16.	SEC2	a)Practice of Life Insurance/ b)Web Design & Analytics/ c)Application of Business Analytics	2	2	1 ½ hrs	40U+10I
17.	DSC301	Advanced Accounting	5	5	3 hrs	80U+20I
18.	DSC302	Business Statistics-I	5	5	3 hrs	80U+20I
19.	DSC303	Data Analytics Modeling	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		
		<b>SEMESTER – IV</b>				
20.	ELS4	English (First Language)	3	3		
21.	SLS4	Second Language	3	3		
22.	SEC3	a)Practice of General Insurance/ b)Social Media Marketing c)Business Intelligence	2	2	1 ½ hrs	40U+10I
23.	SEC4	a)Regulation of Insurance Business/ b)Search Engine Optimization & Online Advertising c)Data Visualisation &Storytelling	2	2	1 ½ hrs	40U+10I
24.	DSC401	Income Tax/Excel Foundation	5	5	3 hrs	80U+20I
25.	DSC402	Business Statistics-II	5	5	3 hrs	80U+20I
26.	DSC403	Forecasting & Predictive Analytics	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		

**Faculty of Commerce & Business Management, Kakatiya University**

		<b>SEMESTER – V</b>				
27.	ELS5	English (First Language)	3	3		
28.	SLS5	Second Language	3	3		
29.	GE	a)Business Economics/ b)Advanced Aspects of Income Tax	4	4	3 hrs	80U+20I
30.	DSE501	a) Cost Accounting/ b) Financial Planning & Performance/ c) International Financial Reporting-I	5	5	3 hrs	80U+20I
31.	DSE502	a) Computerized Accounting/ b) Financial Decision Making-I/ c) International Tax & Regulation	3T+4P/5	5	3 hrs	50T+35P + 15I/ 80U+20I
32.	DSE503	a) Advanced Data Visualization/ b) Advanced Corporate Accounting/ c) Financial Management	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>27/25</b>	<b>25</b>		
		<b>SEMESTER – VI</b>				
33.	ELS6	English (First Language)	3	3		
34.	SLS6	Second Language	3	3		
35.	PR	Research Methodology and Project Report	2T+4R	4	1 ½ hrs	40U+10I 35R+15VV
36.	DSE601	a) Cost Control and Management Accounting/ b) Financial control/ c)International Financial Reporting-II	5	5	3 hrs	80U+20I
37.	DSE602	a) Theory and Practice of GST/ b) Financial Decision Making-II / c) International Auditing	3T+4P/5	5	3 hrs	50T+35P + 15I/ 80U+20I
38.	DSE603	a) Business Applications of Emerging Technologies/ b) Corporate Governance/ c) Investment management	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>29/27</b>	<b>25</b>		
		<b>GRAND TOTAL</b>	<b>156/152</b>	<b>150</b>		

**ELS:** English Language Skill; **SLS:** Second Language Skill; **AEC:** Ability Enhancement Compulsory Course; **SEC:** Skill Enhancement Course; **DSC:** Discipline Specific Course; **DSE:** Discipline Specific Elective; **GE:** Generic Elective; **T:** Theory; **P:** Practical; **I:** Internal Exam **U:** University Exam; **PR:** Project Report; **VV:** Viva-Voce Examination.

**Note:** If a student should opt for “a” in SEC in III semester, the student has to opt for “a” only in IV semester and sSo is the case with “b” and “c”. In the case of DSE also the rule applies.

**SUMMARY OF CREDITS**

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	English Language	6	4/3	20
2	Modern Language	6	4/3	20
3	AEC	2	2	4
4	SEC	4	2	8
5	GE	1	4	4
6	Project Report	1	4	4
7	DSC	12	5	60
8	DSE	6	5	30
	<b>TOTAL</b>	<b>38</b>		<b>150</b>
	<b>Commerce</b>	<b>24</b>		<b>106</b>
<b>CREDITS UNDER NON-CGPA</b>		NSS/NCC/Sports/Extr a Curricular	Up to 6 (2 in each year)	
		Summer Internship	Up to 4 (2 in each after I & II years)	



**Faculty of Commerce & Business Management, Kakatiya University, Warangal**

<p align="center"><b>B.COM (Tax Procedures)</b>  <b>CBCS COURSE STRUCTURE</b>  <b>w.e.f. 2019-'20</b></p>						
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<b>Sl.No.</b>	<b>Code</b>	<b>Course Title</b>	<b>HPW</b>	<b>Credits</b>	<b>Exam Hrs</b>	<b>Marks</b>
(1)	(2)	(3)	(5)	(6)	(7)	(8)
		<b>SEMESTER – I</b>				
1.	ELS1	English (First Language)	4	4		
2.	SLS1	Second Language	4	4		
3.	AECC1	Environmental Science/ Basic Computer Skills	2	2		
4.	DSC101	Financial Accounting-I	5	5	3 hrs	80U+20I
5.	DSC102	Business Organization and Management	5	5	3 hrs	80U+20I
6.	DSC103	Income Tax - I	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		
		<b>SEMESTER – II</b>				
7.	ELS2	English (First Language)	4	4		
8.	SLS2	Second Language	4	4		
9.	AECC2	Basic Computer Skills/ Environmental Science	2	2		
10.	DSC201	Financial Accounting-II	5	5	3 hrs	80U+20I
11.	DSC202	Business Laws	5	5	3 hrs	80U+20I
12.	DSC203	Income Tax - II	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		
		<b>SEMESTER – III</b>				
13.	ELS3	English (First Language)	3	3		
14.	SLS3	Second Language	3	3		
15.	SEC1UGC Specified Course	Communication Skills	2	2	1 ½ hrs	40U+10I
		Professional Skills				
16.	SEC2Dep t. Specified Course	Principles of Insurance/ b) Foundation of Digital Marketing & Web Design	2	2	1 ½ hrs	40U+10I
17.	DSC301	Advanced Accounting	5	5	3 hrs	80U+20I
18.	DSC302	Business Statistics-I	5	5	3 hrs	80U+20I
19.	DSC303	Assessment of Other Entities	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		
		<b>SEMESTER – IV</b>				
20.	ELS4	English (First Language)	3	3		
21.	SLS4	Second Language	3	3		
22.	SEC3 UGC Specified Course	Leadership & Management Skills	2	2	1 ½ hrs	40U+10I
		Universal Human Values				
23.	SEC4 Dept. Specified Course	a) Practice of Life and General Insurance / Social Media Marketing Search Engine Optimization & Online Advertising	2	2	1 ½ hrs	40U+10I
24.	DSC401	Excel Foundation	5	5	3 hrs	80U+20I
25.	DSC402	Business Statistics-II	5	5	3 hrs	80U+20I
26.	DSC403	Customs Procedure & Practice	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>25</b>	<b>25</b>		

**Faculty of Commerce & Business Management, Kakatiya University, Warangal**

		<b>SEMESTER – V</b>				
27.	ELS5	English (First Language)	3	3		
28.	SLS5	Second Language	3	3		
29.	GE	Business Economics	4	4	3 hrs	80U+20I
30.	DSE501	Cost Accounting/ Financial Planning & Performance/ International Financial Reporting-I	5	5	3 hrs	80U+20I
31.	DSE502	Computerized Accounting/ Financial Decision Making-I/ International Tax & Regulation	3T+4P/5	5	3 hrs	50T+35P + 15I/ 80U+20I
32.	DSE503	Tax Planning & Management/ Advanced Corporate Accounting/ Financial Management	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>27/25</b>	<b>25</b>		
		<b>SEMESTER – VI</b>				
a)	ELS6	English (First Language)	3	3		
b)	SLS6	Second Language	3	3		
c)	PR	Research Methodology and Project Report	2T+4R	4	1 ½ hrs	40U+10I 35R+15VV
d)	DSE601	a) Cost Control and Management Accounting/ Financial control/ International Financial Reporting-II	5	5	3 hrs	80U+20I
e)	DSE602	Theory and Practice of GST/ Financial Decision Making-II / International Auditing	3T+4P/5	5	3 hrs	50T+35P + 15I/ 80U+20I
f)	DSE603	International Tax & Regulation/ Corporate Governance/ Investment Management	5	5	3 hrs	80U+20I
		<b>Total</b>	<b>29/27</b>	<b>25</b>		
		<b>GRAND TOTAL</b>	<b>156/152</b>	<b>150</b>		

**ELS:** English Language Skill; **SLS:** Second Language Skill; **AEC:** Ability Enhancement Compulsory Course; **SEC:** Skill Enhancement Course; **DSC:** Discipline Specific Course; **DSE:** Discipline Specific Elective; **GE:** Generic Elective; **T:** Theory; **P:** Practical; **I:** Internal Exam **U:** University Exam; **PR:** Project Report; **VV:** Viva-Voce Examination.

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**SUMMARY OF CREDITS**

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	English Language	6	4/3	20
2	Second Language	6	4/3	20
3	AECC	2	2	4
4	SEC	4	2	8
5	GE	1	4	4
6	Project Report	1	4	4
7	DSC	12	5	60
8	DSE	6	5	30
	<b>TOTAL</b>	<b>38</b>		<b>150</b>
	<b>Commerce</b>	<b>24</b>		<b>106</b>
<b>CREDITS UNDER NON-CGPA</b>		NSS/NCC/Sports/Extra Curricular	Up to 6 (2 in each year)	
		Summer Internship	Up to 4 (2 in each after I & II years)	

## B.COM (Computer Applications)

### CBCS COURSE STRUCTURE

Sl.No.	Code	Course Title	HPW	Credits	Exam Hrs	Marks
(1)	(2)	(3)	(5)	(6)	(7)	(8)
		<b>I Year I Semester</b>				
1.	ELS1	English (First Language)	4	4		
2.	SLS1	Second Language	4	4		
3.	AECC1	a)Environmental Science/ b)Basic Computer Skills	2	2	1 ½ hrs	40U+10I
4.	DSC101	Financial Accounting-I	5	5	3 hrs	80U+20I
5.	DSC102	Business Organization and Management	5	5	3 hrs	80U+20I
6.	DSC103	Fundamentals of Information Technology	3T+4P	5	1 ½ hrs	50T+35P+15I
		<b>Total</b>	<b>27</b>	<b>25</b>		
		<b>I Year II Semester</b>				
7.	ELS2	English (First Language)	4	4		
8.	SLS2	Second Language	4	4		
9.	AECC2	a)Basic Computer Skills/ b)Environmental Science	2	2	1 ½ hrs	40U+10I
10.	DSC201	Financial Accounting-II	5	5	3 hrs	80U+20I
11.	DSC202	Business Laws	5	5	3 hrs	80U+20I
12.	DSC203	Programming with C & C++	3T+4P	5	1 ½ hrs	50T+35P+15I
		<b>Total</b>	<b>27</b>	<b>25</b>		
		<b>II Year I Semester</b>				
13.	ELS3	English (First Language)	3	3		
14.	SLS3	Second Language	3	3		
15.	SEC1	a)Principles of Insurance/ b)Foundation of Digital Marketing/ c)Fundamentals of Business Analytics	2	2	1 ½ hrs	40U+10I
16.	SEC2	a)Practice of Life Insurance/ b)Web Design & Analytics/ c)Application of Business Analytics	2	2	1 ½ hrs	40U+10I
17.	DSC301	Advanced Accounting	5	5	3 hrs	80U+20I
18.	DSC302	Business Statistics-I	5	5	3 hrs	80U+20I
19.	DSC303	Relational Database Management System	3T+4P	5	1 ½ hrs	50T+35P+15I
		<b>Total</b>	<b>27</b>	<b>25</b>		

**Faculty of Commerce & Business Management, Kakatiya University, Warangal.**

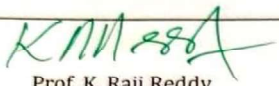
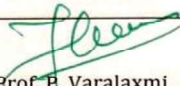
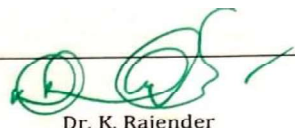
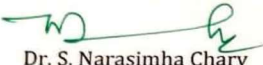


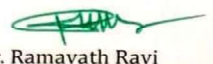
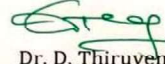
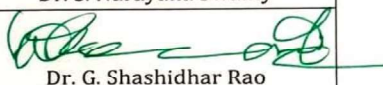
		<b>II Year II Semester</b>				
20.	ELS4	English (First Language)	3	3		
21.	SLS4	Second Language	3	3		
22.	SEC3	a)Practice of General Insurance/ b)Social Media Marketing c)Business Intelligence	2	2	1 ½ hrs	40U+10I
23.	SEC4	a)Regulation of Insurance Business/ b)Search Engine Optimization & Online Advertising c)Data Visualisation & Storytelling	2	2	1 ½ hrs	40U+10I
24.	DSC401	Income Tax/Excel Foundation	5	5	3 hrs	80U+20I
25.	DSC402	Business Statistics-II	5	5	3 hrs	80U+20I
26.	DSC403	Web Technologies	3T+4P	5	1 ½ hrs	50T+35P+ 15I
		<b>Total</b>	<b>27</b>	<b>25</b>		
		<b>III Year I Semester</b>				
27.	ELS5	English (First Language)	3	3		
28.	SLS5	Second Language	3	3		
29.	GE	a)Business Economics / b) Advanced Aspects of Income Tax	4	4	3 hrs	80U+20I
30.	DSE501	a) Cost Accounting/ b) Financial Planning & Performance/ c) International Financial Reporting-I	5	5	3 hrs	80U+20I
31.	DSE502	a) Computerized Accounting/ b) Financial Decision Making-I/ c) International Tax &Regulation	3T+4P/ 5	5	3 hrs	50T+35P+ 15I/ 80U+20I
32.	DSE503	a) Management Information Systems/ b) Ecommerce/c) Mobile Applications	3T+4P	5	1 ½ hrs	50T+35P+ 15I
		<b>Total</b>	<b>29/27</b>	<b>25</b>		
		<b>III Year II Semester</b>				
33.	ELS6	English (First Language)	3	3		
34.	SLS6	Second Language	3	3		
35.	PR	Research Methodology and Project Report	2T+4R	4	1 ½ hrs	40U+10I 35R+15VV
36.	DSE601	a) Cost Control and Management Accounting/ b) Financial control/ c) International Financial Reporting-II	5	5	3 hrs	80U+20I
37.	DSE602	a) Theory and Practice of GST/ b) Financial Decision Making-II / c) InternationalAuditing	3T+4P/ 5	5	3 hrs	50T+35P+ 15I/ 80U+20I
38.	DSE603	a) Multimedia Systems/ b) Cyber Security/c) Data Analytics	3T+4P	5	1 ½ hrs	50T+35P+ 15I
		<b>Total</b>	<b>31/29</b>	<b>25</b>		
		<b>GRAND TOTAL</b>	<b>168/164</b>	<b>150</b>		

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**Note: If a student should opt for "a" in SEC in III semester, the student has to opt for "a" only in IV semester and so is the case with "b" and "c". In the case of DSE also the rule applies.**

**SUMMARY OF CREDITS**

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	English Language	6	4/3	20
2	Second Language	6	4/3	20
3	AECC	2	2	4
4	SEC	4	2	8
5	GE	1	4	4
6	Project Report	1	4	4
7	DSC	12	5	60
8	DSE	6	5	30
	<b>TOTAL</b>	<b>40</b>		<b>150</b>
	<b>Commerce</b>	<b>24</b>		<b>106</b>
<b>CREDITS UNDER NON-CGPA</b>		<b>NSS/NCC/Sports/ Extra Curricular</b>	<b>Up to 6 (2 in each year)</b>	
		<b>Summer Internship</b>	<b>Up to 4 (2 in each after I &amp; II years)</b>	

 Prof. K. Raji Reddy	 Prof. P. Varalaxmi	 Dr. K. Rajender
 Dr. S. Narasimha Chary	 Mr. M. Somaiah	 Dr. S. Narayana Swamy
 Dr. Ramavath Ravi	 Dr. D. Thiruvengala Chary	 Dr. G. Shashidhar Rao

**KAKATIYA UNIVERSITY, WARANGAL - 506 009**  
**B.Sc. PROGRAMME**  
**Under CBCS System**  
**Scheme wef A.Y: 2019-20**

**FIRST YEAR**

**SEMESTER - I**

Code	Course category	Title of the Paper	No. of Credits	Hrs PW	Max. Marks			Total Marks
					Interna l Exam	End Exam	Lab	
BS101	AECC-1	Environmental Science	2	2	10	40	-	50
BS102	FL-1A	English	4	4	20	80	-	100
BS103	SL-1A	Second Language	4	4	20	80	-	100
BS104	DSC-1A	Optional - I	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS105	DSC-2A	Optional– II	4	4	20	80	25	125
		Optional – II LAB	1	3				
BS106	DSC-3A	Optional – III	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**SEMESTER – II**

Code	Course category	Title of the Paper	No. of Credits	Hrs PW	Max. Marks			Total Marks
					Interna l Exam	End Exam	Lab	
BS201	AECC-2	Basic Computer Skills (Taught by: Computer Science)	2	2	10	40	-	50
BS202	FL-2B	English	4	4	20	80	-	100
BS203	SL-2B	Second Language	4	4	20	80	-	100
BS204	DSC-1B	Optional - I	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS205	DSC-2B	Optional – II	4	4	20	80	25	125
		Optional – II Lab	1	3				
BS206	DSC-3B	Optional – III	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL :</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>



**KAKATIYA UNIVERSITY, WARANGAL - 506 009****B.Sc. PROGRAMME  
Under CBCS System  
Scheme wef A.Y: 2020-21****SECOND YEAR****SEMESTER - III**

Code	Course category	Title of the Paper	No. of Credits	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS 301	SEC-1	Fundamentals of Nano Technology (Taught by : Physics)	2	2	10	40	-	50
BS 302	SEC-2	Bio Statistics (Taught by : Statistics)	2	2	10	40	-	50
BS 303	FL-3 A	English	3	3	15	60	-	75
BS 304	SL-3 B	Second Language	3	3	15	60	-	75
BS 305	DSC-1C	Optional - I	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS 306	DSC-2C	Optional – II	4	4	20	80	25	125
		Optional– II Lab	1	3				
BS 307	DSC-3C	Optional – III	4	4	20	80	25	125
		Optional – III Lab	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**SEMESTER - IV**

Code	Course category	Title of the Paper	No. of Credits	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS401	SEC-3	Fundamentals of Python (Taught by: Computer Science)	2	2	10	40	-	50
BS402	SEC-4	Remedial Methods of Pollution – Drinking Water & Soil Fertility (Taught by: Chemistry)	2	2	10	40	-	50
BS403	FL-4 A	English	3	3	15	60	-	75
BS404	SL-4 B	Second Language	3	3	15	60	-	75
BS405	DSC-1D	Optional - I	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS406	DSC-2D	Optional – II	4	4	20	80	25	125
		Optional – II Lab	1	3				
BS407	DSC-3D	Optional – III	4	4	20	80	25	125
		Optional– III Lab	1	3				
		<b>TOTAL :</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**KAKATIYA UNIVERSITY, WARANGAL - 506 009****B.Sc. PROGRAMME****Under CBCS System****Scheme wef A.Y: 2021-2022****THIRD YEAR****SEMESTER - V**

Code	Course Type	Title of the Paper	No. of Credits	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS 501	FL-5 A	English	3	3	15	60	-	75
BS 502	SL-5 B	Second Language	3	3	15	60	-	75
BS 503	G.E.	Water Resources Management (Taught by: Any Science Dept.)	4	4	20	80	-	100
BS 504	DSE-1E	Optional – I	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS 505	DSE-2E	Optional – II	4	4	20	80	25	125
		Optional – II Lab	1	3				
BS506	DSE-3E	Optional – III	4	4	20	80	25	125
		Optional – III Lab	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**SEMESTER - VI**

Code	Course Type	Title of the Paper	No. of Credits	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS 601	FL-6A	English	3	3	15	60	-	75
BS 602	SL-6 B	Second Language	3	3	15	60	-	75
BS 603	P.W / Optional	Optional: Public Health & Hygiene (Taught by: Zoology / Botany / Biotechnology / Micro Biology )	4	4	20	80	-	100
BS 604	DSE-1F	Optional - I	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS 605	DSE-2F	Optional – II	4	4	20	80	25	125
		Optional – II Lab	1	3				
BS 606	DSE-3F	Optional – III	4	4	20	80	25	125
		Optional – III Lab	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

<b>NSS/NCC/Sports/Extra Curricular</b>	<b>Credits under Non – CGPA 6</b>	<b>Up to 6 (2 in each Year)</b>	<b>Up to 6 (2 in each Year)</b>	<b>Up to 6 (2 in each Year)</b>
<b>Summer internship</b>	<b>4</b>	<b>Up to 4 ( 2 in each, after I &amp; II years</b>	<b>Up to 4 ( 2 in each, after I &amp; II years</b>	<b>Up to 4 ( 2 in each, after I &amp; II years</b>

**F.L : First Language;**

**S.L : Second Language;**

**A.E.C.C: Ability Enhancement Compulsory Course;**

**S.E.C : Skill Enhancement Course;**

**D.S.C : Discipline Specific Course;**

**D.S.E : Discipline Specific Effective;**

**G.E : Generic Elective;**

**P.W : Project Work;**



**KAKATIYA UNIVERSITY, WARANGAL – 506 009**

**B.Sc. PROGRAMME Under CBCS System**

**Scheme with effect from Academic Year: 2022 – 2023**

**B.Sc. (DATA SCIENCE)**

Year	Semester	Theory / Practical	Paper Title	Work Load (Hrs/Week)	# Credits	Marks
I	FIRST	<b>Paper – I (DSC – A)</b>	<b>Programming with C</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 1</i>	<i>Programming with C (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
	SECOND	<b>Paper – II (DSC – B)</b>	<b>Problem Solving and Python Programming</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 2</i>	<i>Problem Solving and Python Programming (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
II	THIRD	<b>SEC - 1</b>	<b>Mini Project - 1 (Lab)</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>SEC - 2</b>	<b>University Specified Course Bio Statistics (Taught by: Statistics)</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>Paper – III (DSC – C)</b>	<b>Data Engineering with Python</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 3</i>	<i>Data Engineering with Python (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
	FOURTH	<b>SEC – 3</b>	<b>Mini Project - 2 (Lab)</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>SEC – 4</b>	<b>University Specified Course Remedial Methods of Pollution – Drinking Water &amp; Soil Fertility (Taught by: Chemistry)</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>Paper – IV (DSC – D)</b>	<b>Machine Learning</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 4</i>	<i>Machine Learning (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
III	FIFTH	<b>Paper – V (A) (DSE – A)</b>	<b>Natural Language Processing</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<b>Paper – V (B) (DSE – A)</b>	<b>No SQL Databases</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical – 5 (A)</i>	<i>Natural Language Processing (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
		<i>Practical – 5 (B)</i>	<i>No SQL Databases (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
		<b>Paper VI - GE</b>	<b>Data Structures and Algorithms</b>	<b>4</b>	<b>4</b>	<b>100</b>
	SIXTH	<b>Paper – VII (A) (DSE – B)</b>	<b>Big Data</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<b>Paper – VII (B) (DSE – B)</b>	<b>Deep Learning</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical – 7 (A)</i>	<i>Big Data (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
		<i>Practical – 7 (B)</i>	<i>Deep Learning (Lab)</i>	<i>3</i>	<i>1</i>	<i>25</i>
		<b>Paper VIII (Project)</b>	<b>Major Project</b>	<b>4</b>	<b>4</b>	<b>100</b>

## **BBA Course Structure and Syllabus**

### **I YEAR I SEMESTER**

<i><b>Course Code</b></i>	<i><b>Course Title</b></i>	<i><b>HPW</b></i>	<i><b>Credits</b></i>	<i><b>Exam Hrs.</b></i>	<i><b>Marks</b></i>
<b>ELS 1</b>	English (First Language) - 1	<b>4</b>	<b>4</b>		
<b>MIL 1</b>	MIL – 1	<b>4</b>	<b>4</b>		
<b>AECC 1</b>	Environmental Science	<b>2</b>	<b>2</b>		
<b>DSC 101</b>	Principles of Management	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSC 102</b>	Basics of Marketing	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSC 103</b>	Business Economics	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
	<b>Total Semester Credits</b>	<b>25</b>	<b>25</b>		

### **I YEAR II SEMESTER**

<i><b>Course Code</b></i>	<i><b>Course Title</b></i>	<i><b>HPW</b></i>	<i><b>Credits</b></i>	<i><b>Exam Hrs.</b></i>	<i><b>Marks</b></i>
<b>ELS 2</b>	English (First Language) - 2	<b>4</b>	<b>4</b>		
<b>MIL 2</b>	MIL – 2	<b>4</b>	<b>4</b>		
<b>AECC 2</b>	Basic Computer Skills	<b>2</b>	<b>2</b>		
<b>DSC 201</b>	Organisational Behaviour	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSC 202</b>	Business Statistics	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSC 203</b>	Financial Accounting	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
	<b>Total Semester Credits</b>	<b>25</b>	<b>25</b>		

### II YEAR I SEMESTER

<i>Course Code</i>	<i>Course Title</i>	<i>HPW</i>	<i>Credits</i>	<i>Exam Hrs.</i>	<i>Marks</i>
<b>ELS 3</b>	English (First Language) - 3	<b>3</b>	<b>3</b>		
<b>MIL 3</b>	MIL – 3	<b>3</b>	<b>3</b>		
<b>SEC 1</b>	a) Personality Development - I b) Advanced Computers	<b>2</b>	<b>2</b>	<b>1 ½ Hrs.</b>	<b>40 U + 10 I</b>
<b>SEC 2</b>	a) Basic Quality Management b) Business Policy and Strategy	<b>2</b>	<b>2</b>	<b>1 ½ Hrs.</b>	<b>40 U + 10 I</b>
<b>DSC 301</b>	Human Resource Management	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSC 302</b>	Information Technology for Business	<b>4 T+1 P</b>	<b>5</b>	<b>3 Hrs.</b>	<b>60 U + 20 P + 20 I</b>
<b>DSC 303</b>	Financial Management	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
	<b>Total Semester Credits → 24/25</b>		<b>25</b>		

### II YEAR II SEMESTER

<i>Course Code</i>	<i>Course Title</i>	<i>HPW</i>	<i>Credits</i>	<i>Exam Hrs.</i>	<i>Marks</i>
<b>ELS 4</b>	English (First Language) - 4	<b>3</b>	<b>3</b>		
<b>MIL 4</b>	MIL – 4	<b>3</b>	<b>3</b>		
<b>SEC 3</b>	a) Business Correspondence and Communication b) Personality Development - II	<b>2</b>	<b>2</b>	<b>1 ½ Hrs.</b>	<b>40 U + 10 I</b>
<b>SEC 4</b>	a) Start Up Management b) Business Intelligence & Data Visualization	<b>2</b>	<b>2</b>	<b>1 ½ Hrs.</b>	<b>40 U + 10 I</b>
<b>DSC 401</b>	Business Law and Ethics	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSC 402</b>	Market Research	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSC 403</b>	Management Science	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
	<b>Total Semester Credits</b>	<b>25</b>	<b>25</b>		



### III YEAR I SEMESTER

<i>Course Code</i>	<i>Course Title</i>	<i>HPW</i>	<i>Credits</i>	<i>Exam Hrs.</i>	<i>Marks</i>
<b>ELS 5</b>	English (First Language) - 5	<b>3</b>	<b>3</b>		
<b>MIL 5</b>	MIL – 5	<b>3</b>	<b>3</b>		
<b>GE -1</b>	Mobile Commerce	<b>4</b>	<b>4</b>	<b>3 Hrs.</b>	<b>60 U + 20 I</b>
<b>DSE 501</b>	a. Financial Markets and Services (F) b. Brand Management (M) c. Organization Development (HR)	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSE 502</b>	a. Analysis of Investment in Financial Assets (F) b. Retail Management (M) c. Performance Appraisal and Counseling( HR)	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSE 503</b>	a. Insurance Services (F) b. Customer Relationship Management (M) c. Compensation Management (HR)	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
	<b>Total Semester Credits</b>	<b>24/25</b>	<b>25</b>		

### III YEAR II SEMESTER

<i>Course Code</i>	<i>Course Title</i>	<i>HPW</i>	<i>Credits</i>	<i>Exam Hrs.</i>	<i>Marks</i>
<b>ELS 6</b>	English (First Language) – 6	<b>3</b>	<b>3</b>		
<b>MIL 6</b>	MIL – 6	<b>3</b>	<b>3</b>		
<b>GE -2</b>	Business Analytics	<b>4</b>	<b>3</b>	<b>4 Hrs.</b>	<b>60 U + 20 I</b>
<b>DSE 601</b>	a. Banking (F) b. Buyer Behaviour (M) c. Leadership and Change Management (HR)	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSE 602</b>	a. Risk Analysis And Management (F) b. Advertising and Sales Promotion (M) c. Talent and Knowledge Management (HR)	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSE 603</b>	a. International Finance (F) b. Rural Marketing (M) c. Employees Relations (HR)	<b>5</b>	<b>5</b>	<b>3 Hrs.</b>	<b>80 U + 20 I</b>
<b>DSE 604</b>	Project Report & Viva-Voce	<b>4</b>	<b>4</b>	<b>Viva</b>	<b>Grade</b>
	<b>Total Semester Credits</b>	<b>29</b>	<b>29</b>		
	<b>Total All Semester Credits → 148/150</b>		<b>150</b>		

**KAKATIYA UNIVERSITY, WARANGAL - 506 009****B.Sc. PROGRAMME - Under CBCS System****Scheme wef A.Y: 2019-20****Subject: ZOOLOGY****FIRST YEAR****SEMESTER – I**

Code	Course category	Title of the Paper	Credits No. of	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS101	AECC-1	Environmental Science	2	2	10	40	-	50
BS102	FL-1A	English	4	4	20	80	-	100
BS103	SL-1A	Second Language	4	4	20	80	-	100
BS104	DSC-1A	<b>Animal Diversity - Invertebrates</b>	4	4	20	80	25	125
		<b>Lab -I</b>	1	3				
BS105	DSC-2A	Optional– II	4	4	20	80	25	125
		Optional – II LAB	1	3				
BS106	DSC-3A	Optional – III	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**SEMESTER – II**

Code	Course category	Title of the Paper	Credits No. of	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS201	AECC-2	Basic Computer Skills (Taught by: Computer Science)	2	2	10	40	-	50
BS202	FL-2B	English	4	4	20	80	-	100
BS203	SL-2B	Second Language	4	4	20	80	-	100
BS204	DSC-1B	<b>Animal Diversity - Vertebrates</b>	4	4	20	80	25	125
		<b>Lab</b>	1	3				
BS205	DSC-2B	Optional– II	4	4	20	80	25	125
		Optional – II LAB	1	3				
BS206	DSC-3B	Optional – III	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

# KAKATIYA UNIVERSITY, WARANGAL - 506 009

## B.Sc. PROGRAMME - Under CBCS System

Scheme wef A.Y: 2019-20

**Subject: ZOOLOGY**

### SECOND YEAR

#### SEMESTER – III

Code	Course category	Title of the Paper	Credits No. of	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS301	SEC-1	Fundamentals of Nano Technology (Taught by : Physics)	2	2	10	40	-	50
BS302	SEC-2	Bio Statistics (Taught by : Statistics)	2	2	10	40	-	50
BS303	FL-3 A	English	3	3	15	60	-	75
BS304	SL-3 B	Second Language	3	3	15	60	-	75
BS305	DSC-1C	<b>Animal Physiology &amp; Animal Behaviour</b>	4	4	20	80	25	125
		<b>Lab</b>	1	3				
BS306	DSC-2C	Optional– II	4	4	20	80	25	125
		Optional – II LAB	1	3				
BS307	DSC-3C	Optional – III	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

#### SEMESTER – IV

Code	Course category	Title of the Paper	Credits No. of	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS401	SEC-3	Fundamentals of Python (Taught by: Computer Science)	2	2	10	40	-	50
BS402	SEC-4	Remedial Methods of Pollution – Drinking Water & Soil Fertility (Taught by: Chemistry)	2	2	10	40	-	50
BS403	FL-4 A	English	3	3	15	60	-	75
BS404	SL-4 B	Second Language	3	3	15	60	-	75
BS405	DSC-1D	<b>Cell Biology, Genetics &amp; Developmental Biology</b>	4	4	20	80	25	125
		<b>Lab</b>	1	3				
BS406	DSC-2D	Optional– II	4	4	20	80	25	125
		Optional – II LAB	1	3				
BS407	DSC-3D	Optional – III	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**KAKATIYA UNIVERSITY, WARANGAL - 506 009**

**B.Sc. PROGRAMME - Under CBCS System**

**Scheme wef A.Y: 2019-20**

**Subject: ZOOLOGY**

**THIRD YEAR**

**SEMESTER – V**

Code	Course category	Title of the Paper	Credits No. of	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS501	FL-5 A	English	3	3	15	60	-	75
BS502	SL-5 B	Second Language	3	3	15	60	-	75
BS503	G.E.	Water Resources Management (Taught by: Any Science Dept.)	4	4	20	80	-	100
BS504	DSE-1E	Optional - I : Physiological Chemistry & Endocrinology	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS505	DSE-2E	Optional– II : Laboratory Animals Maintenance & Applications	4	4	20	80	25	125
		Optional – II LAB	1	3				
BS506	DSE-3E	Optional – III : Immunology and Animal Biotechnology	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**SEMESTER – VI**

Code	Course category	Title of the Paper	Credits No. of	Hrs PW	Max. Marks			Total Marks
					Internal Exam	End Exam	Lab	
BS601	FL-6 A	English	3	3	15	60	-	75
BS602	SL-6 B	Second Language	3	3	15	60	-	75
BS603	P.W / Optional	Optional: Public Health & Hygiene (Taught by: Zoology / Botany / Biotechnology / Micro Biology )	4	4	20	80	-	100
BS604	DSC-1F	Optional - I : Fisheries	4	4	20	80	25	125
		Optional – I Lab	1	3				
BS605	DSC-2F	Optional– II : Limnology	4	4	20	80	25	125
		Optional – II LAB	1	3				
BS606	DSC-3F	Optional – III : Ecology, Zoogeography & Evolution	4	4	20	80	25	125
		Optional – III LAB	1	3				
		<b>TOTAL:</b>	<b>25</b>	<b>-</b>	<b>110</b>	<b>440</b>	<b>75</b>	<b>625</b>

**B.Sc. FOOD & NUTRITION Syllabus, Kakatiya University, Warangal**  
**CBCS pattern in Semester System (w.e. from 2020-21)****SEMESTER PATTERN**

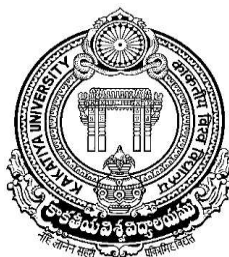
Year	Sem	Code	Course Title	Course Type	HPW	Credits
FIRST	I	BS 104	Introduction to Foods & Nutrition	DSC - 1A	4T+2P=6	4+1=5
	II	BS 204	Nutritional Biochemistry and Human Physiology	DSC -1B	4T+2P=6	4+1=5
SECOND	III	BS 305	Normal and Therapeutic Nutrition	DSC- 1C	4T+2P=6	4+1=5
	IV	BS 405	Diet in Disease	DSC- 1D	4T+2P=6	4+1=5
THIRD	V	BS 504	A- Clinical Dietetics	DSE-1E	4T+2P=6	4+1=5
		BS 505	B- Diet Therapy	DSE-2E		
	VI	BS 604	A-Public Health Nutrition	DSE-1F	4T+2P=6	4+1=5
		BS 605	B-Community Nutrition	DSE-2F		
		BS 603	Project Work/Optional		4	4

**CURRICULUM FOR  
B.Sc Life Science Subject:**

# **NUTRITION & DIETETICS**

**IN UNDER GRADUATE DEGREE PROGRAMME CBCS SYLLABUS**

WITH EFFECT FROM  
ACADEMIC YEAR 2020-2021



**KAKATIYA UNIVERSITY  
WARANGAL, TELANGANA STATE, INDIA**



**B.Sc. NUTRITION & DIETETICS Syllabus, Kakatiya University, Warangal**  
**CBCS pattern in Semester System (w.e. from 2020-21)**

**SEMESTER PATTERN**

Year	Sem	Code	Course Title	Course Type	HPW	Credits
FIRST	I	BS 104	Introduction to Nutrition & Dietetics	DSC - 1A	4T+2P=6	4+1=5
	II	BS 204	Nutritional Biochemistry and Human Physiology	DSC -1B	4T+2P=6	4+1=5
SECOND	III	BS 305	Normal and Therapeutic Nutrition	DSC- 1C	4T+2P=6	4+1=5
	IV	BS 405	Diet in Disease	DSC- 1D	4T+2P=6	4+1=5
THIRD	V	BS 504	A- Clinical Dietetics	DSE-1E	4T+2P=6	4+1=5
		BS 505	B- Diet Therapy	DSE-2E		
	VI	BS 604	A-Public Health Nutrition	DSE-1F	4T+2P=6	4+1=5
		BS 605	B-Community Nutrition	DSE-2F		
		BS 603	Project Work/Optional		4	4

  
**Dr. Estari Mamidala**  
 Chairman  
 Board of Studies in Zoology  
 Department of Zoology  
 Kakatiya University  
 Warangal-506009

# B.Sc. (Physics) Syllabus, Kakatiya University, Warangal

## CBCS pattern in Semester System (w. e. from 2016-2017)

### KAKATIYA UNIVERSITY, WARANGAL

#### SCHEME FOR CHOICE BASED CREDIT SYSTEM

#### B.Sc. (PHYSICS)

#### SEMESTER PATTERN

YEAR	SEM	COURSE (PAPER) TITLE WITH CODE	COURSE TYPE*	HRS/ WEEK	CREDITS	MARKS	
						Internal Assessment	SEM End Exam
<b>F I R S T</b>	<b>I</b>	101: Mechanics	DSC-1	4	4	20	80
		101(P): Mechanics Lab (Pr)	DSC-1(P)	3	1	-	25
	<b>II</b>	201: Waves and Oscillations	DSC-2	4	4	20	80
		201(P): Waves and Oscillations Lab (Pr)	DSC-2(P)	3	1	-	25
<b>S E C O N D</b>	<b>III</b>	301: Thermal Physics	DSC-3	4	4	20	80
		301(P): Thermal Physics Lab (Pr)	DSC-3(P)	3	1	-	25
	<b>IV</b>	401: Optics	DSC-4	4	4	20	80
		401(P): Optics Lab (Pr)	DSC-4(P)	3	1	-	25
<b>T H I R D</b>	<b>V</b>	501: Electromagnetism	DSC-5	3	3	15	60
		501(P): Electromagnetism Lab (Pr)	DSC-5(P)	3	1	-	25
		502: Elective (Theory) – 1 (A/B/C) A. Solid state physics B. Modern Optics	DSE-1	3	3	15	60
		502(P): Elective (Practical) - 1 (A/B/C) A. Solid state physics Lab B. Modern Optics Lab	DSE-1(P)	3	1	-	25
	<b>VI</b>	601: Modern Physics	DSC-6	3	3	15	60
		601(P): Modern Physics Lab (Pr)	DSC-6(P)	3	1	-	25
		602: Elective (Theory) – 2 (A/B/C) A. Basic Electronics B. Physics of Semiconductor devices	DSE-2	3	3	15	60
		602(P): Elective (Practical) – 2 (A/B/C) A. Basic Electronics Lab B. Physics of Semiconductor devices Lab	DSE-2(P)	3	1	-	25
		<b>Total</b>			<b>36</b>	<b>140</b>	<b>760</b>
						<b>Grand Total : 900</b>	

\*DSC: Discipline Specific Course (Core)      DSE: Discipline Specific Elective (Elective)



Dr. B. Venkatram Reddy  
Chairman, Board of Studies in Physics, KU, Wgl  
Date: 24<sup>th</sup> Aug., 2016 & 5<sup>th</sup> June, 2017

**Department of Mathematics**  
**Kakatiya University**  
**Warangal – T.S. 506 009**



**Mathematics Course Structure**

**B.Sc. Common Core Syllabus for All the Students Admitted from  
the Academic Year 2019-2020 Batch onwards**

**B.Sc.( Mathematics) Course Structure**  
**W.E.F. 2019-20 academic year batch onwards**

Year	Paper	Semester	Subject	Hours/Per Week		Credits	Marks (IA)	Marks (Theory)	Total Marks
				Theory	Tutorials*				
1	DSC I	I	Differential & Integral Calculus	5	1	5	25	100	125
	DSC II	II	Differential Equations	5	1	5	25	100	125
2	DSC III	III	Real Analysis	5	1	5	25	100	125
	DSC IV	IV	Algebra	5	1	5	25	100	125
3	DSC V	V	Linear Algebra	5	1	5	25	100	125
	DSE VI	VI	(A) Numerical Analysis	5	1	5	25	100	125
		VI	(B) Integral Transforms	5	1	5	25	100	125
		VI	(C) Analytical Solid Geometry	5	1	5	25	100	125
2	SEC-I	III	Theory of Equations	2	-	2	10	40	50
2	SEC-II	III	Logic & Sets	2	-	2	10	40	50
2	SEC-III	IV	Number Theory	2	-	2	10	40	50
2	SEC-IV	IV	Vector Calculus	2	-	2	10	40	50
3	Generic Elective	V-A Or V-B	Basic Mathematics Or Mathematics of Finance & Insurance	4	-	4	20	80	100
3	Project/Optional	VI*	Mathematical Modelling	4	-	4	20	80	100

\***Tutorials:** Problems solving session for each 20 students one batch.

IA→ Internal Assessment

**Note:** No Mathematics Practical's for the students who admitted from the Academic year 2019-2020 academic batch onwards.

## Course Structure of M.Com (Computer Applications) under CBCS

### I Semester

S.No.	Paper code	Title	contact Hours	Credits	Intrenal	External	Total
1	101	Business Environment	5	5	20	80	100
2	102	Business Analytics with Spread Sheets	3	5	20	60	100
		Lab-Business Analytics with Spread Sheets	4=2	5		20	100
3	103	Corporate Financial Accounting	5		20	80	
4	104	Quantitative Techniques	5	5	20	80	100
5	105	Organization Theory & Behaviour	5	5	20	80	100
	106	Seminars and Tutorials	2	1		50	50
		Attendance		1			
		<b>Total</b>	<b>29</b>	<b>27</b>	<b>100</b>	<b>450</b>	<b>550</b>

### II Semester

S.No.	Paper code	Title	contact Hours	Credits	Intrenal	External	Total
1	201	Marketing Management	5	5	20	80	100
2	202	Financial Management	5	5	20	80	100
3	203	Human Resource Management	5	5	20	80	100
4	204	Advanced Programming with C	3	5	20	60	100
		Lab - Advanced Programming with C	4=2			20	
5	205	Computer Applications in Accounting - Tally	3	5	20	60	100
		Lab-Computer Applications in Accounting	4=2			20	
	206	Foundation Course*	2	2	10	40	50
6	207	Seminars and Tutorials	2	1		50	50
		Attendance		1			
		<b>Total</b>	<b>33</b>	<b>29</b>	<b>110</b>	<b>490</b>	<b>600</b>

\* Every student admitted in M.Com(Computer Applications) programme under CBCS has to select one course from the Foundation Courses offered by the University in the Second Semester

## Course Structure of M.Com (Computer Applications) under CBCS

### III Semester

S.No.	Paper code	Title	contact Hours	Credits	Intrenal	External	Total
1	301	Strategic Management	5	5	20	80	100
2	302	E- Business	5	5	20	80	100
3	303	Software Project Management with MS Project	3	5	20	60	100
		Lab - MS Project Module	4=2			20	
4	304	Software Testing Tools	3	5	20	60	100
		Lab - Software Testing Tools	4=2			20	
5	305	Web Programming	3	5	20	60	100
		HTML Lab	4=2			20	
6	306	Open Elective - 1 *	4	4	20	80	100
7	307	Seminars and Tutorials	2	1		50	50
		Attendance		1			
		Total	31	31	120	530	650

\* Every student admitted in M. Com(Computer Applications) programme under CBCS has to select one course from the Open Elective Courses offered by the University in the Third Semester other than the course offered by the Dept of Commerce & Business Management

### IV Semester

S.No.	Paper code	Title	contact Hours	Credits	Intrenal	External	Total
1	401	Business Research Methods	5	5	20	80	100
2	402	International Business	5	5	20	80	100
3	403	Management Information System	5	5	20	80	100
4	404	Relational Database Management Systems	3	5	20	60	100
		Lab - Oracle	4=2			20	
5	405	Data Analysis with SPSS	3	5	20	60	100
		Lab - SPSS	4=2			20	
6	406	Lab-Comprehensive Software Project ( Evaluation and Viva-Voce )	8=4	4		100	100
7	407	Seminars and Tutorials	2	1		50	50
		Attendance		1			
		Total	31	31	100	550	650

\* Every student admitted in M.Com -Computer Applications -under CBCS has to prepare Comprehensive Software Project under the guidance of the Faculty



## Course Structure of M.Com under CBCS

### I Semester

S.No.	Paper code	Title	contact Hours	Credits	Intrenal	External	Total
1	101	Business Environment	5	5	20	80	100
2	102	Managerial Economics	5	5	20	80	100
3	103	Corporate Financial Accounting	5	5	20	80	100
4	104	Quantitative Techniques	5	5	20	80	100
5	105	Organization Theory & Behaviour	5	5	20	80	100
6	106	Seminars and Tutorials	2	1		50	50
		Attendance		1			
		<b>Total</b>	<b>27</b>	<b>27</b>	<b>100</b>	<b>450</b>	<b>550</b>

### II Semester

S.No.	Paper code	Title	contact Hours	Credits	Intrenal	External	Total
1	201	Marketing Management	5	5	20	80	100
2	202	Financial Management	5	5	20	80	100
3	203	Human Resource Management	5	5	20	80	100
4	204	Management Accounting	5	5	20	80	100
5	205	Computer Applications in Accounting - Tally	3	5	20	60	100
		Lab-Computer Applications in Accounting	4=2			20	
6	206	Foundation Course*	2	2	10	40	50
7	207	Seminars and Tutorials	2	1		50	50
		Attendance		1			
		<b>Total</b>	<b>31</b>	<b>29</b>	<b>110</b>	<b>490</b>	<b>600</b>

\* Every student admitted in M.Com programme under CBCS has to select one course from the Foundation Courses offered by the University in the Second Semester.

## Course Structure of M.Com under CBCS

### III Semester

S.No.	Paper code	Title	contact Hours	Credits	Intrenal	External	Total
1	301	Strategic Management	5	5	20	80	100
2	302	E-Business	5	5	20	80	100
<b>310: Accounting and Finance - Electives</b>							
3	311	Financial Markets and Institutions	5	5	20	80	100
4	312	Security Analysis and Portfolio Management	5	5	20	80	100
5	313	Corporate Tax Management	5	5	20	80	100
<b>320: Marketing Management - Electives</b>							
3	321	Rural Marketing	5	5	20	80	100
4	322	Advertising and Sales Management	5	5	20	80	100
5	323	Consumer Behaviour	5	5	20	80	100
<b>330: Human Resource Management - Electives</b>							
3	331	Industrial Relations	5	5	20	80	100
4	332	Performance Management	5	5	20	80	100
5	333	Compensation Management	5	5	20	80	100
6	306	Open Elective - 1 *	4	4	20	80	100
7	307	Seminars and Tutorials	2	1		50	50
		Attendance		1			
		Total	31	31	120	530	650

\* Every student admitted in M.Com programme under CBCS has to select one course from the Open Elective Courses offered by the University in the Third Semester other than the course offered by the Dept of Commerce & Business Management

# KAKATIYA UNIVERSITY WARANGAL

## RULES AND REGULATIONS GOVERNING MBA Course under CBCS with effect from the Academic Year 2016-2017

### 1. The Course

The duration of MBA programme is two academic, years consisting of Four Semesters - two semesters in each year - each semester of 14-16 weeks duration.

Students who join MBA programme shall not take -up any employment either part-time or full-time during the University academic working hours. Students who are admitted to MBA course and who are subsequently found to be in employment during the University academic working hours anywhere in India will cease to be students of the course.

### 2. Admission

Candidates possessing a Bachelor Degree in any discipline (Excluding B.O.I, and B.F.A) with 50% aggregate marks (45% in case of reserved categories) and qualified in ICET exam are eligible for admission to MBA programme subject to the rules and regulations of the University from time to time.

### 3. Course Structure, Hours of instruction per week and Aggregate marks

The MBA programme offers in all 28 papers consisting of 22 core papers and 6 elective papers apart from Viva-voce and project report. In addition to one foundation course and two open electives. The details of semester-wise subjects, hours of instruction per week, credits per paper are given in Appendix – 1.

#### MBA COURSE STRUCTURE

No	Code	Nature	No. of Papers	Semester	Credits
1	CORE	Core	16 @ 4 ppw	I(5)II(5)III(3) IV(3)	64
2	GE	Generic Electives	4@4ppw	III(2)IV(2)	16
3	OE	Inter Disciplinary (1+1 = 2 )	2@ 4 ppw	III (1) and IV (1)	8
4	ELE	Electives (Discipline Centric)	6 @ 4ppw	III(3) IV(3)	24
5	VIVA	First Year End Viva			2
6		Project Report & Viva Voce	1	IV	4
<b>Total</b>			<b>29</b>		<b>118</b>

#### 4. Examination and Assessment

Under Choice Based Credit System(CBCS), the candidates are awarded grades and CGPA  
**Letter Grades and Grade Points**

- i. Absolute grading method is adopted to convert marks into grades based on Predetermined Class Intervals.
- ii. Pre determined Class Intervals (marks), Grade points and Letter grades are presented here under.

#### Grades and Grade Points

Range of Marks obtained in a Course	Grade Point	Explanation	Letter Grade
85 – 100	O	Outstanding	10
70 – 84	A	Very Good	9
60 – 69	B	Good	8
55 – 59	C	Above Average	7
50 – 54	D	Satisfactory	6
40 – 49	E	Pass	5
Less than 40	F	Fail	0
Absent	Ab	Absent	-

- iii. A student obtaining Grade F shall be considered failed and will be required to reappear for the examination.

#### Computation of SGPA and CGPA

The following procedure is adopted to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$\text{SGPA} (S_i) = \sum (C_i \times G_i) / \sum C_i$$

Where  $C_i$  is the number of credits of the  $i$ th course and  $G_i$  is the grade point scored by the student in the  $i$ th course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \sum (C_i \times S_i) / \sum C_i$$

Where  $S_i$  is the SGPA of the  $i$ th semester and  $C_i$  is the total number of credits in that semester.

- iii. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the memorandum of marks.

### Illustration of Computation of SGPA and CGPA

- i. Computation of SGPA and CGPA

#### *Illustration for SGPA*

*If a candidate secure different grade in different courses, the SGPA of each Semester of the candidate is arrived as illustrated.*

Course	Credit	Grade Letter	Grade Point	Credit Point (Credit X Grade)
Course 1	4	B	8	4X8 = 32
Course 2	4	C	7	4X7 = 28
Course 3	4	B	8	4X8 = 32
Course 4	4	B	8	4X8 = 32
Course 5	4	C	7	4X7 = 28
Course 6	4	B	8	4X8 = 32
Course 7	4	B	8	4X8 = 32
	28			216

Thus,  $\text{SGPA} = 216/28 = 7.71$

#### Illustration for CGPA

Semester 1	Semester 2	Semester 3	Semester 4
Credit: 28	Credit : 30	Credit: 28	Credit:32

SGPA: 7.71	SGPA: 6.98	SGPA: 6.22	SGPA: 7.23
------------	------------	------------	------------

Thus, **CGPA** =  $(28 \times 7.71) + (30 \times 6.98) + (28 \times 6.22) + (32 \times 7.23) / 128 = 6.49$

### **Viva-Voce:**

There shall be Viva-voce at the end of II semester and at the end of IV semester with 50 marks for each Viva-voce. The Second semester end Viva-voce is based on the subjects studied in I and II semesters. The fourth semester end Viva is based on the subject studied and the project report.

The Second Semester end Viva-Voce Committee shall be as under:

There will be Two members in viva committee.

One - Member from the faculty of the University Department/ University constituent colleges.

One - Faculty member nominated by the Principal of the concerned college.

In case of University Campus colleges, both the members will be nominated by the Chairman, BOS from among the faculty of the Department.

The Fourth Semester end Viva- Voce Committee consists of 3 a member of which 1 member is external. Out of the remaining two one shall be the Head/Chairman, Board of Studies / Dean and a University teacher of the Department nominated by the Dean / BOS. The quorum will be two members of which at least one shall be External Member. Depending on the need, more than one Committee could be constituted.

### **5.Internal Assessment and Seminars**

There will be 20 per cent marks of internal assessment and 10 per cent marks for the class room Seminars. In each paper two internal assessment tests (With ten objective type questions) shall be conducted and the best of one is taken into account there is no supplementary test for the internal assessment tests. Similarly every student in each paper shall be given an option to give seminar presentations in two sessions and best of one is taken into consideration. A Register of internal assessment examinations, IT practicals and seminars conducted in each subject with the following details shall be maintained. Similar procedure should be adopted for all Computer practical examinations conducted by the Internal Faculty both in the First Semester and Second Semester.

- Date of Examination / Presentation
- Names of the Students and their Signature
- Subject / Topic Concerned
- Name and Signature of Faculty evaluated

The Register of internal assessment examinations and seminars should be made available both at the time of Second Semester end vivaand (for First and Second Semester)and Third Semester Project Viva Voce. A certificate of verification of Seminars and Internal Assessment

Examinations should be enclosed along with the mark list of Second and Third Semesters viva voce examinations.

## **6. Rules of Promotion**

A student has to not only put in 75% of attendance and register for examination for each semester but also appear in each semester for promotion to the next semester.

In case of Lab-based papers, the candidates should appear for both theory and lab examination.

The minimum pass marks shall be 40% in each paper in the end semester University examinations and a paper minimum of 40% including internal assessment marks and an aggregate of 50% of marks in each semester. If a candidate fails to appear for any or all two internal assessment examinations, no further examination will be conducted.

Two Internal Assessment examinations shall be conducted in each semester. Out of the marks obtained by the student in two examinations, the higher marks shall be considered.

The detailed rules concerning Internal Assessment examinations shall be as per the University rules applicable to all P.O. examinations including M.B.A. and M.C.A. course.

At the end of the fourth semester, the result of the candidate shall be declared after ensuring that a student passes all the semester exams by securing a minimum of 50% aggregate in each semester. The students who could not secure 50% aggregate marks in any semester can appear for all or any of the papers of that particular semester for securing the required aggregate marks.

There shall be no supplementary examinations for the course and the examinations shall be held for I & III and II & IV semester simultaneously.

## **7. Declaration of result at the end of IV semester:**

i) There shall be only two divisions viz.,

II Division: 50% and above but less than 60%

I Division: 60% and above but less than 70%

Candidates securing 70% and above shall be awarded First Division with distinction.

ii) The award of Division, distinction and rank will be in accordance with the general rules applicable to other Post-Graduate courses of the University subject to overall CGPA

iii) The rules pertaining to improvement shall be the same as are applicable to other Post-Graduate courses in the University.

## **8. Project Report:**

A student has to undergo practical training for a period of 6 weeks at the end of second semester in a corporate enterprise during the first summer vacation. During the training period, the candidates should work on a specific problem related to the management and working of the organization. At the end of practical training, the student should obtain a certificate for receiving the training from the organization.

The student should prepare a Project Report under the supervision of a guide from the Faculty of Management of the concerned college in fourth Semester. However, the students who prepare Project Report in the area of Systems can also work under the guidance of Faculty member from Computer Science Department.

The student has to present a Seminar in the concerned college on the Project work done by him. The Principal of the College concerned shall certify and intimate the list of candidates who have given seminar presentation to the Head / Chairman, Board of Studies, Department of Commerce & Business Management, Kakatiya University. Two copies of the report should be submitted before the commencement of III semester end examinations. The Project Report carries 100 marks.



**MBA CBCS Course Structure w.e.f From 2016-17 as per the  
Modifications Suggested by the PG BOS on 19-06-2017**

<b>CBCS KU MBA– I Semester</b>									
Sl.No	Course No	Title	Nature	Contact Hours	Credits	Internal		External	Total
						Test	Seminar		
1	MB101	Management and Organization Theory	Core	4	4	20	10	70	100
2	MB102	Accounting for Managers	Core	4	4	20	10	70	100
3	MB103	Statistics for Managers	Core	4	4	20	10	70	100
4	MB104	Information Technology for Managers	Core	4	4	20	10	70	100
5	MB105	Marketing Management	Core	4	4	20	10	70	100
6	MB106	Generic Elective – I 1. Business Environment – I(a) (Or) 2. Entrepreneurship Development – I (b)	Generic	4	4	20	10	70	100

7	MB107	Generic Elective – II 1. Managerial Economics – II(a) (Or) 2. Communication Skills – II(b)	Generic	4	4	20	10	70	100
		Total		28	28	140	70	490	700

MBA– II Semester									
Sl.No	Course No	Title	Nature	Contact Hours	Credits	Internal		External	
						Test	Seminar		
1	MB201	Human Resource Management`	Core	4	4	20	10	70	
2	MB202	Financial Management	Core	4	4	20	10	70	
3	MB203	Management Accounting	Core	4	4	20	10	70	
4	MB204	Operations Research	Core	4	4	20	10	70	
5	MB205	Business Research Methodology	Core	4	4	20	10	70	

6	MB206	Generic Elective – III 1. Business Ethics –III(a)(Or) 2. Retail Management – III(b)	Generic	4	4	20	10	70	
7	MB207	Generic Elective – IV 1. Business Analytics using Excel – IV(a) (Or) 2. Customer Relationship Management – IV(b)	Generic	4	4	20	10	70	
8	MB208	First Year End Viva	Grading		2			50	
		Total		28	30	140	70	540	

MBA– III Semester									
Sl.No	Course No	Title	Nature	Contact Hours	Credits	Internal		External	
						Test	Seminar		
1	MB301	Organization Behavior	Core	4	4	20	10	70	
2	MB302	Strategic Management	Core	4	4	20	10	70	
3	MB 303	Managerial Communication	Core	4	4	20	10	70	

4	MB304	Interdisciplinary Courses a) e-Business Or b) Business Law	Open	4	4	20	10	70	
5	MB305 MB306 MB307	Discipline Specific Elective I One elective group from A/B/C/D groups consisting of 3 papers with 4 credits each (4 hours per week)	DSC	12	12	60	30	210	
				28	28	140	70	490	

MBA IV Semester									
Sl.No	Course No	Title	Nature	Contact Hours	Credits	Internal		External	
						Test	Seminar		
1	MB401	Operations Management	Core	4	4	20	10	70	
2	MB402	International Business	Core	4	4	20	10	70	

3	MB403	Creativity and Innovations	Core	4	4	20	10	70	
4	MB404A	Project Report	Field Work	0	2			100	
4	MB404B	Project Viva-voce	Grading	0	2			50	
5	MB405	Inter Disciplinary Elective II a) Personal Finance (or) b) MIS	Open	4	4	20	10	70	
6	MB406 MB407 MB408	Discipline Specific Electives (3) I One elective group from A/B/C/D groups consisting of 3 papers with 4 credits each (4 hours per week)	DSC	12	12	60	30	210	
		Total		28	32	140	70	640	

### III Semester Elective Course Structure

#### Group-A: HUMAN RESOURCE MANAGEMENT

6	MB305A	Human Resource Development	4	4	20	10	70	100
7	MB306A	Labour Laws	4	4	20	10	70	100

8	MB307A	Organisation Development	4	4	20	10	70	100
<b>Group-B: MARKETING MANAGEMENT</b>								
6	MB305B	Consumer Behaviour	4	4	20	10	70	100
7	MB306B	Advertising & Sales Management	4	4	20	10	70	100
8	MB307B	Product & Brand Management	4	4	20	10	70	100
<b>Group-C: FINANCIAL MANAGEMENT</b>								
6	MB305C	Security Analysis &Port folio Management	4	4	20	10	70	100
7	MB306C	Indian Financial System	4	4	20	10	70	100
8	MB307C	Corporate Taxation & Planning	4	4	20	10	70	100
<b>Group-D: SYSTEMS MANAGEMENT</b>								
6	MB305D	Relational Data Base Management System	4	4	20	10	70	100
7	MB306D	Management of Software Projects Enterprise Resource Planning (ERP) System Analysis and Design	4	4	20	10	70	100

8	MB307D	Enterprise Resource Planning (ERP)	4	4	20	10	70	100
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**IV Semester Elective Course Structure**

**Group-A: HUMAN RESOURCE MANAGEMENT**

6	MB406A	Management of Industrial Relations	4	4	20	10	70	100
7	MB407A	Compensation Management	4	4	20	10	70	100
8	MB408A	Strategic Human Resource Management	4	4	20	10	70	100

**Group-B: MARKETING MANAGEMENT**

6	MB406B	Services Marketing	4	4	20	10	70	100
7	MB407B	Rural Marketing	4	4	20	10	70	100
8	MB408B	Supply Chain Management	4	4	20	10	70	100

**Group-C: FINANCIAL MANAGEMENT**

6	MB406C	International financial Management	4	4	20	10	70	100
7	MB407C	Strategic Financial Management	4	4	20	10	70	100
8	MB408C	Financial Derivatives	4	4	20	10	70	100

**Group-D: SYSTEMS MANAGEMENT**



**KAKATIYA UNIVERSITY, WARANGAL**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**MCA COURSE STRUCTURE UNDER CBCS**  
**WITH EFFECT FROM 2020-22**

**MCA I YEAR I SEMESTER:**

Paper No	Paper Title / Subject	Workload Per week (Theory : Lab)	M A R K S			Credits
			Internal	External	Total	
MCA111	C and Data Structures	T ( 4 )	20	80	100	4
MCA112	Operating System	T ( 4 )	20	80	100	4
MCA113	Java Programming	T ( 4 )	20	80	100	4
MCA114	Computer Networks	T ( 4 )	20	80	100	4
MCA115	Probability and Statistical Methods	T ( 4 )	20	80	100	4
MCA116	C and DS Lab	L ( 4 )	--	50	50	2
MCA117	OS Lab	L ( 4 )	--	50	50	2
MCA118	Java Programming Lab	L ( 4 )	--	50	50	2
<b>Grand total (Marks and Credits)</b>					<b>650</b>	<b>26</b>





**KAKATIYA UNIVERSITY, WARANGAL**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**MCA COURSE STRUCTURE UNDER CBCS**  
**WITH EFFECT FROM 2020-22**

**MCA IYEAR IISEMESTER**

Paper No	Paper Title / Subject	Workload Per week (Theory : Lab)	M A R K S			Credits
			Internal	External	Total	
MCA121	Python Programming	T ( 4 )	20	80	100	4
MCA122	Database Management Systems	T ( 4 )	20	80	100	4
MCA123	Software Engineering	T ( 4 )	20	80	100	4
MCA124	Cryptography and Network Security	T ( 4 )	20	80	100	4
MCA125	Principles and Practice of Management	T ( 4 )	20	80	100	4
MCA126	Python Programming lab	L ( 4 )	--	50	50	2
MCA127	DBMS Lab	L ( 4 )	--	50	50	2
MCA128	Software Engineering Lab	L ( 4 )	--	50	50	2
<b>Grand total (marks and credits)</b>					<b>650</b>	<b>26</b>



**KAKATIYA UNIVERSITY, WARANGAL**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**MCA COURSE STRUCTURE UNDER CBCS**  
**WITH EFFECT FROM 2020-21**

Paper No	Paper Title / Subject	Workload Per week (Theory : Lab)	M A R K S			Credits
			Internal	External	Total	
MCA211	Data Mining	T ( 4 )	20	80	100	4
MCA212	Web Technologies	T ( 4 )	20	80	100	4
MCA213	Theory of Computation	T ( 4 )	20	80	100	4
MCA214	Elective – I	T ( 4 )	20	80	100	4
MCA215	Elective – II	T ( 4 )	20	80	100	4
MCA216	Data Mining Lab	L ( 4 )	--	50	50	2
MCA217	Web Technologies Lab	L ( 4 )	--	50	50	2
MCA218	Advanced Programming Lab (with respect to Elective – I )	L ( 4 )	--	50	50	2
<b>Grand total (marks and credits)</b>					<b>650</b>	<b>26</b>

**MCA II YEAR I SEMESTER:**

**Elective –I**

- a. Mobile Application Development
- b. Cloud Computing
- c. R-Programming

**Elective – II**

- a. Internet of Things
- b. Big Data Analytics
- c. Mobile Computing



**KAKATIYA UNIVERSITY, WARANGAL**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**MCA COURSE STRUCTURE UNDER CBCS**  
**WITH EFFECT FROM 2020-21**

**MCA II YEAR II SEMESTER:**

Paper No	Paper Title / Subject	Workload Per week (Theory : Lab)	M A R K S			Credits
			Internal	External	Total	
MCA221	Artificial Intelligence	T ( 4 )	20	80	100	4
MCA222	Elective-III	T ( 4 )	20	80	100	4
MCA223	Elective-IV	T ( 4 )	20	80	100	4
MCA224	Project	T ( 8 )	50	200	250	10
<b>Grand total (marks and credits)</b>					<b>550</b>	<b>22</b>

**Elective – III**

- a. Foundations of Block Chain Technologies
- b. Cyber Security
- c. E-Commerce

**Elective – IV**

- a. Digital Image Processing
- b. Machine Learning
- c. Language Processors



**KAKATIYA UNIVERSITY, WARANGAL**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**MCA COURSE STRUCTURE UNDER CBCS**  
**WITH EFFECT FROM 2020-22**

Paper No	Paper Title / Subject	Workload Per week (Theory : Lab)	M A R K S			Credits
			Internal	External	Total	
MCA111	C and Data Structures	T ( 4 )	20	80	100	4
MCA112	Operating System	T ( 4 )	20	80	100	4
MCA113	Java Programming	T ( 4 )	20	80	100	4
MCA114	Computer Networks	T ( 4 )	20	80	100	4
MCA115	Probability and Statistical Methods	T ( 4 )	20	80	100	4
MCA116	C and DS Lab	L ( 4 )	--	50	50	2
MCA117	OS Lab	L ( 4 )	--	50	50	2
MCA118	Java Programming Lab	L ( 4 )	--	50	50	2
<b>Grand total (Marks and Credits)</b>					<b>650</b>	<b>26</b>

**MCA I YEAR I SEMESTER:**



## **M.Sc. CHEMISTRY CBCS PATTERN IN SEMESTER SYSTEM**

### **DEPARTMENT OF CHEMISTRY**

**KAKATIYA UNIVERSITY WARANGAL – 506 009**

Department of Chemistry, Kakatiya University introduces Choice Based Credit System (CBCS) for M.Sc. (2 Year course) chemistry for the students admitted in M.Sc. Chemistry course from 2016-17 academic year onwards.

Scheme for CBCS, the workload for each paper, distribution of marks, the number of credits and scheme of examination are attached herewith.

Internal Assessment examination will be conducted twice in every Semester. The main examination (theory and practical) will be conducted at the end of each semester.

One open elective in III semester and one is in IV semester are offered by Department of Chemistry for all the PG-students.

Students joined in M.Sc. Chemistry should choose one open elective offered by Department of chemistry or any other Department of Kakatiya University.

The syllabi of theory and practical papers of I, II III, and IV semesters are enclosed. The syllabi of open elective offered in IV semester will be kept available for the next academic year.

**– Prof. Gade Dayakar**

Chairperson

Board of Studies in Chemistry

**DEPARTMENT OF CHEMISTRY - KAKATIYA UNIVERSITY**  
**[with effect from the academic year 2016-17 Under CBCS system]**  
**Semester –I**

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	ICHT1	Paper-I	Inorganic Chemistry	4	4	80	20	100
2	ICHT2	Paper-II	Organic Chemistry	4	4	80	20	100
3	ICHT3	Paper-III	Physical Chemistry	4	4	80	20	100
4	ICHT4	Paper- IV	Applied Chemistry	4	4	80	20	100
5	1CHP1	Paper-V	Inorganic Practicals	6	3	75	----	75
6	1CHP2	Paper-VI	Organic Practicals	6	3	75	----	75
7	1CHP3	Paper-VII	Physical Practicals	6	3	75	----	75
8	----	----	Seminar	----	1	----	----	25
	Total	----	----	34	26	----	----	650

**Semester –II**

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	2CHT5	Paper-I	Inorganic Chemistry	4	4	80	20	100
2	2CHT6	Paper-II	Organic Chemistry	4	4	80	20	100
3	2CHT7	Paper-III	Physical Chemistry	4	4	80	20	100
4	2CHT8	Paper- IV	Spectroscopy	4	4	80	20	100
5	2CHP4	Paper-V	Inorganic Practicals	6	3	75	----	75
6	2CHP5	Paper-VI	Organic Practicals	6	3	75	----	75
7	2CHP6	Paoer-VII	Physical Practicals	6	3	75	----	75
8	----	----	Seminar	----	1	----	----	25
	Total	----	----	34	26	----	----	650



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### III Semester- Inorganic chemistry

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	3CHT9	Paper-I	Spectroscopy	4	4	80	20	100
2	3CHT10	Paper-II	Synthetic Organic Chemistry-I	4	4	80	20	100
3	3CHT11	Paper-III	Bioinorganic and Supramolecular Chemistry	4	4	80	20	100
4	3CHT12	Paper- IV	Inorganic Photochemistry and Chemistry of Materials	4	4	80	20	100
5	3CHP7	Paper-V	Preparation of Complexes and their characterization by Physiochemical techniques	9	4	100	----	100
6	3CHP8	Paper-VI	Analysis of Ternary mixtures and Complex materials	9	4	100	----	100
7	3CHOE	Paper-VII	Environmental chemistry (Open elective)	4	4	80	20	100
		Seminar		----	1	25	----	25
	Total			38	29			725

### III Semester-Organic chemistry

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	3CHT9	Paper-I	Spectroscopy	4	4	80	20	100
2	3CHT10	Paper-II	Synthetic Organic Chemistry-I	4	4	80	20	100
3	3CHT13	Paper-III	General Organic Chemistry-I	4	4	80	20	100
4	3CHT14	Paper- IV	Natural Products	4	4	80	20	100
5	3CHP9	Paper-V	Preparation of organic compounds and Spectral analysis	9	4	100	----	100
6	3CHP10	Paper-VI	Organic mixture analysis (with two component mixture)	9	4	100	----	100
7	3CHOE	Paper-VII	Environmental chemistry (Open elective)	4	4	80	20	100
		Seminar		----	1	25	----	25
	Total			38	29			725



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### III Semester-Physical chemistry

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	3CHT9	Paper-I	Spectroscopy	4	4	80	20	100
2	3CHT10	Paper-II	Synthetic Organic Chemistry-I	4	4	80	20	100
3	3CHT15	Paper-III	Quantum Chemistry, Kinetics & Electrochemistry	4	4	80	20	100
4	3CHT16	Paper- IV	Group Theory & Spectroscopy	4	4	80	20	100
5	3CHP11	Paper-V	Kinetics	9	4	100	----	100
6	3CHP12	Paper-VI	Instrumentation	9	4	100	----	100
7	3CHOE	Paper-VII	Environmental chemistry (Open elective)	4	4	80	20	100
		Seminar		----	1	25	----	25
	Total			38	29			725

### IV Semester-Inorganic chemistry

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	4CHT17	Paper-I	Analytical and Physical Chemistry	4	4	80	20	100
2	4CHT18	Paper-II	Synthetic Organic Chemistry-II	4	4	80	20	100
3	4CHT19	Paper-III	Instrumental methods of analysis	4	4	80	20	100
4	4CHT20	Paper- IV	Organometallic Chemistry	4	4	80	20	100
5	4CHP13	Paper-V	Ion exchange and Solvent Extraction Methods	9	4	100	----	100
6	4CHP14	Paper-VI	Instrumental Methods	9	4	100	----	100
7	4CHOE	Paper-VII	Open elective	4	4	80	20	100
		Seminar		----	1	25	----	25
	Total			38	29			725



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### IV Semester-Organic chemistry

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	4CHT17	Paper-I	Analytical and Physical Chemistry	4	4	80	20	100
2	4CHT18	Paper-II	Synthetic Organic Chemistry-II	4	4	80	20	100
3	4CHT21	Paper-III	General Organic Chemistry-II	4	4	80	20	100
4	4CHT22A / 4CHT22B	Paper- IVA / Paper- IVB	Natural products (Elective-I) / Medicinal chemistry (Elective-II)	4	4	80	20	100
5	4CHP15	Paper-V	Estimations and Principles of chromatography	9	4	100	----	100
6	4CHP16	Paper-VI	Isolation and purification of natural products and Advanced organic preparations					
7	4CHOE	Paper-VII	Open elective	4	4	80	20	100
		Seminar		----	1	25	----	25
	Total			38	29			725

### IV Semester- Physical chemistry

Curriculum						Scheme of Examination		
S. No	Paper Code	Paper no.	Title of the paper	Instruction Hrs/ Week	No. of Credits	Marks		Total marks
						External	Internal	
1	4CHT17	Paper-I	Analytical and Physical Chemistry	4	4	80	20	100
2	4CHT18	Paper-II	Synthetic Organic Chemistry-II	4	4	80	20	100
3	4CHT23	Paper-III	Catalysis	4	4	80	20	100
4	4CHT24A / 4CHT24B	Paper- IVA / Paper- IVB	Nanomaterials, Macromolecules and Data analysis (Elective-I) / Supramolecular, Material Sciences, Lasers and Computational Chemistry (Elective-II)	4	4	80	20	100
	4CHP17	Paper-V	Practicals -Kinetics	9	4	100	----	100
7	4CHP16	Paper-VI	Practicals- Instrumentation	9	4	100		100
8	4CHOE	Paper-VII	Open elective	4	4	80	20	100
		Seminar		----	1	25	----	25
	Total			38	29			725



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Prof. Gade Dayakar, Chairperson, BOS in Chemistry, KU,

Approved syllabus  
For  
M.Sc Food Science & Technology course  
(2022-23 under CBCS)



Department of  
Food Science & Technology (**ZOOLOGY**)  
**KAKATIYA UNIVERSITY**  
**WARANGAL 506 009 TELANGANA**  
**STATE**

**M.Sc Food Science & Technology - 2022-23**

Under Choice Based Credit System

**SU - M.Sc (FST) I SEMESTER**

Paper Code	Title	Workload Per Week hrs		Marks			Credits	Duration of the Exam.
		Theory	Practical	Internal	University	Total		
CPT FST 111	FOOD CHEMISTRY AND NUTRITION	4	--	20	80	100	4	3 Hrs
CPT FST 112	FOOD MICROBIOLOGY	4	--	20	80	100	4	3 Hrs
CPT FST 113	TECHNOLOGY OF CEREALS, LEGUMES AND OIL SEEDS	4	--	20	80	100	4	3 Hrs
CPT FST 114	FERMENTED FOODS AND BEVERAGES TECHNOLOGY	4	--	20	80	100	4	3 Hrs
CPP FST 115	FOOD CHEMISTRY AND NUTRITION LAB	--	6	15	60	75	3	4 Hrs
CPP FST 116	FOOD MICROBIOLOGY LAB	--	6	15	60	75	3	4 Hrs
CPP FST 117	FERMENTED FOODS AND BEVERAGES TECHNOLOGY LAB	--	6	15	60	75	3	4 Hrs
<b>TOTAL</b>		<b>16</b>	<b>18</b>	<b>125</b>	<b>500</b>	<b>625</b>	<b>25</b>	

**M.Sc (FST) II SEMESTER**

Paper Code	Title	Workload Per Week hrs		Marks			Credits	Duration of the Exam.
		Theory	Practical	Internal	University	Total		
CPT FST 121	PRINCIPLES OF FOOD ENGINEERING	4	--	20	80	100	4	3 Hrs
CPT FST 122	TECHNOLOGY OF MILK AND MILK PRODUCTS	4	--	20	80	100	4	3 Hrs
CPT FST 123	FRUIT AND VEGETABLE PROCESSING & PRESERVATION TECHNIQUES	4	--	20	80	100	4	3 Hrs
CPT FST 124	TECHNOLOGY OF MEAT, FISH, POULTRY & THEIR PRODUCTS	4	--	20	80	100	4	3 Hrs
CPP FST 125	PRINCIPLES OF FOOD ENGINEERING LAB	--	6	15	60	75	3	4 Hrs
CPP FST 126	TECHNOLOGY OF MILK AND MILK PRODUCTS LAB	--	6	15	60	75	3	4 Hrs
CPP FST 127	FRUIT AND VEGETABLE PROCESSING & PRESERVATION TECHNIQUES LAB	--	6	15	60	75	3	4 Hrs
<b>TOTAL</b>		<b>16</b>	<b>18</b>	<b>125</b>	<b>500</b>	<b>625</b>	<b>25</b>	

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Department of Zoology  
Kakatiya University  
WARANGAL - 506 009, T.S.

Department Of Zoology  
University College  
Kakatiya University,  
WARANGAL - 506009 (T.S.)

**SU - M.Sc (FST) III SEMESTER**

Paper Code	Title	Workload Per Week hrs		Marks			Credits	Duration of the Exam.
		Theory	Practical	Internal	University	Total		
CPT FST 211	FOOD SAFETY, QUALITY CONTROL AND MANAGEMENT SYSTEMS	4	--	20	80	100	4	3 Hrs
CPT FST 212	APPLIED STATISTICS	4	--	20	80	100	4	3 Hrs
CPT FST 213	ELECTIVE - I A) TECHNOLOGY OF SUGAR CONFECTIONERY & CHOCOLATE PROCESSING	4	--	20	80	100	4	3 Hrs
	B) TECHNOLOGY OF SPICES, CONDIMENTS & PLANTATION CROPS	4	--	20	80	100	4	3 Hrs
CPT FST 214	ELECTIVE – II A) BAKING SCIENCE AND TECHNOLOGY	4	--	20	80	100	4	3 Hrs
	B) EXTRUSION TECHNOLOGY	4	--	20	80	100	4	3 Hrs
CPP FST 215	FOOD PROCESSING LAB-I	--	9	20	80	100	4	4 Hrs
CPP FST 216	FOOD PROCESSING LAB-II	--	9	20	80	100	4	4 Hrs
FST 217	SEMINAR	2		25		25	1	
TOTAL		18	18	145	480	625	25	

**SU M.Sc (FST) IV SEMESTER**

Paper Code	Title	Workload Per Week hrs		Marks			Credits	Duration of the Exam.
		Theory	Practical	Internal	University	Total		
CPT FST 221	ADVANCES IN FOOD PACKAGING	4	--	20	80	100	4	3 Hrs
CPT FST 222	FOOD PRODUCT DEVELOPMENT AND ENTREPRENEURSHIP	4	--	20	80	100	4	3 Hrs
CPP FST 223	FOOD PRODUCT DEVELOPMENT LAB		8	20	80	100	4	4 Hrs
FST 224	MAJOR PROJECT		18	100	200	300	12	
FST 225	SEMINAR	2			25	25	1	
TOTAL		10	26	160	465	625	25	

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WARANGAL - 506 009, T.S.

HEAD  
Department Of Zoology  
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Kakatiya University,  
WARANGAL - 506009 (T.S.)

**KAKATIYA UNIVERSITY**  
**M.A/M.Sc ( MATHEMATICS)**  
**Semester I/II/III/IV**  
**Scheme of Instruction and Examination**  
**(With effect from 2019-2020 batch)**

**SEMESTER-I**

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
<b>I</b>	<b>M1CP1</b>	<b>Algebra</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>II</b>	<b>M1CP2</b>	<b>Real Analysis</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>III</b>	<b>M1CP3</b>	<b>Ordinary Differential Equations</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>IV</b>	<b>M1CP4</b>	<b>Discrete Mathematics</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>V</b>	<b>M1CP5</b>	<b>Fundamentals of Statistics</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
		<b>Seminar</b>	<b>2</b>				<b>25</b>	<b>1</b>
					<b>Total Credits</b>			<b>31</b>

**SEMESTER-II**

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
<b>I</b>	<b>M2CP1</b>	<b>Field Extensions and Galois Theory</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>II</b>	<b>M2CP2</b>	<b>Mathematical Analysis</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>III</b>	<b>M2CP3</b>	<b>Topology</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>IV</b>	<b>M2CP4</b>	<b>Complex Analysis</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
<b>V</b>	<b>M2CP5</b>	<b>Special Functions</b>	<b>6</b>	<b>20</b>	<b>80</b>	<b>-</b>	<b>100</b>	<b>6</b>
		<b>Seminar</b>	<b>2</b>				<b>25</b>	<b>1</b>
					<b>Total Credits</b>			<b>31</b>

### SEMESTER-III

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
I	M3CP1	Measure and Integration	6	20	80	-	100	6
II	M3CP2	Functional Analysis	6	20	80	-	100	6
III	M3CP3	Partial Differential Equations	6	20	80	-	100	6
IV	M3OP4(1)	Mathematical Programming	6	20	80	-	100	6
	M3OP4(2)	Numerical Analysis	6	20	80	-	100	6
	M3OP4(3)	Automata and Languages	6	20	80	-	100	6
	M3OP4(4)	Advanced Complex Analysis	6	20	80	-	100	6
	M3OP4(5)	Commutative Rings and Modules	6	20	80	-	100	6
	M3OP4(6)	Mechanics of Solids	6	20	80	-	100	6
V	M3OP5(1)	Computer fundamentals and Programming in C	7(4+3)	20	60	20	100	4(L) + 2(P)
	M3OP5(2)	Office automation and C Language	7(4+3)	20	60	20	100	4(L) + 2(P)
	M3OP5(3)	Numerical Analysis using C	7(4+3)	20	60	20	100	4(L) + 2(P)
		Seminar	2				25	1
					Total Credits			31

## SEMESTER-IV

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
I	M4CP1	Advanced Linear Algebra	6	20	80	-	100	6
II	M4CP2	Graph Theory	6	20	80	-	100	6
III	M4CP3	Integral Equations and Transforms	6	20	80	-	100	6
IV	M4OP4(1)	Near Rings	6	20	80	-	100	6
	M4OP4(2)	Theory of Ordinary Differential Equations						
	M4OP4(3)	Operations Research	6	20	80	-	100	6
	M4OP4(4)	Computational Methods for Partial Differential Equations	6	20	80	-	100	6
	M4OP4(5)	Automata and Machines	6	20	80	-	100	6
	M4OP4(6)	Theory of Reliability	6	20	80	-	100	6
V	M4OP5(1)	Programming Methodology	7(4+3)	20	60	20	100	4(L) + 2(P)
	M4OP5(2)	Programming in C++						
	M4OP5(3)	Applied Stochastic Process with MATLAB	7(4+3)	20	60	20	100	4(L) + 2(P)
		Seminar	2				25	1
					Total Credits			31

L → Lecture, P → Practical, M → Mathematics, CP → Core Paper, OP → Optional Paper

### Summary

Semester	No. of Credits	Marks
I	31	525
II	31	525
III	31	525
IV	31	525
<b>Total</b>	<b>124</b>	<b>2100</b>

The Scheme of 1<sup>st</sup> Internal Assessment of each paper of Semester-I to IV is as follows:

**KAKATIYA UNIVERSITY**  
**M.A./M.Sc (Mathematics) (w.e.f 2019-20)**  
**1<sup>st</sup> Internal Assessment Examination**  
**Semester-I/II/III/IV**  
**Papers I/ II/ III/ IV/ V**

Time: 1 ½ Hours

Max Marks: 15.

Answer Any five of the following questions.  
All questions carry equal marks.

1. A question from unit-I
2. A question from unit-I
3. A question from unit-I
4. A question from unit-I
5. A question from unit-II
6. A question from unit-II
7. A question from unit-II
8. A question from unit-II

**Note: Five Marks will be awarded from assignments given to the students**

The Scheme of 2<sup>nd</sup> Internal Assessment of each paper of Semester-I to IV is as follows:



**M.Sc (Physics) Syllabus under CBCS pattern  
(with effect from 2015-2016)**

**I-Semester (w.e.f. 2015-2016 academic year)**

Paper code	Comp. code	Title of the paper	Internal Exam Marks	End Exam		Total Max. Marks	Total Min. Marks	No. of credits
				Max. Marks	Min. Marks			
Theory								
1.1	101	Mathematical Physics	20	80	32	100	40	04
1.2	102	Classical Mechanics	20	80	32	100	40	04
1.3	103	Solid State Physics	20	80	32	100	40	04
1.4	104	Electronic Devices and Circuits	20	80	32	100	40	04
Practical								
1.5	105	General Physics – I	--	100	40	100	40	04
1.6	106	Electronics - I	--	100	40	100	40	04
Seminar			--	25	10	25	10	01
Total						625		25

**II-Semester (w.e.f. 2015-2016 academic year)**

Paper code	Comp. code	Title of the paper	Internal Exam Marks	End Exam		Total Max. Marks	Total Min. Marks	No. of credits
				Max. Marks	Min. Marks			
Theory								
2.1	201	Statistical Mechanics	20	80	32	100	40	04
2.2	202	Quantum Mechanics	20	80	32	100	40	04
2.3	203	Digital principles and Integrated circuits	20	80	32	100	40	04
2.4	204	Computer Programming and Numerical Methods	20	80	32	100	40	04
Practical								
2.5	205	General Physics – II	--	100	40	100	40	04
2.6	206	Electronics - II	--	100	40	100	40	04
Seminar			--	25	10	25	10	01
Total						625		25

M.Sc (Physics) Syllabus under CBCS pattern  
(with effect from 2015-2016)

**III-Semester (w.e.f. 2016-2017 academic year)**

Paper code	Comp. code	Title of the paper	Internal Exam Marks	End Exam		Total Max. Marks	Total Min. Marks	No. of credits
				Max. Marks	Min. Marks			
Theory								
3.1	301	Quantum Mechanics -II	20	80	32	100	40	04
3.2	302	Nuclear Physics	20	80	32	100	40	04
-----	-----	-----	-----	-----	-----	-----	-----	-----
3.3A	303A	Solid state Physics: (Special – I) (OR)	20	80	32	100	40	04
3.3B	303B	Electronics: (Special -I) Microprocessors (OR)						
3.3C	303C	Nanoscience: Special -I Material Science – I						
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3.4A	304A	Solid state Physics: (Special –II) (OR)	20	80	32	100	40	04
3.4B	304B	Electronics:(Special -II) Comm. Systems (OR)						
3.4C	304C	Nanoscience: Special -II Nanoscience – I						
Practical								
3.5	305	General Physics – II	--	100	40	100	40	04
-----	-----	-----	-----	-----	-----	-----	-----	-----
3.6A	306A	Solid State Physics (Special-I) (OR)	--	100	40	100		04
3.6B	306B	Electronics (Special-I)						
3.6C	306C	(OR) Nanoscience (Special-I)						
Seminar			--	25	10	25	10	01
Total						625		25

M.Sc (Physics) Syllabus under CBCS pattern  
(with effect from 2015-2016)

**IV-Semester (w.e.f. 2016-2017 academic year)**

Paper code	Comp. code	Title of the paper	Internal Exam Marks	End Exam		Total Max. Marks	Total Min. Marks	No. of credits
				Max. Marks	Min. Marks			
Theory								
4.1	401	Electromagnetic Theory and Optics	20	80	32	100	40	04
4.2	402	Molecular Resonance and Spectroscopy	20	80	32	100	40	04
-----	-----	-----	-----	-----	-----	-----	-----	-----
4.3A	403A	Solid state Physics: (Special – III) (OR)	20	80	32	100	40	04
4.3B	403B	Electronics: (Special -III) Microcontrollers (OR)						
4.3C	403C	Nanoscience: Special -III Material Science – II						
-----	-----	-----	-----	-----	-----	-----	-----	-----
4.4A	404A	Solid state Physics: (Special –IV) (OR)	20	80	32	100	40	04
4.4B	404B	Electronics:(Special -IV) Optical, Satellite and Mobile Comm. Systems (OR)						
4.4C	404C	Nanoscience: Special -IV Nanoscience –II						
Practical								
4.5	405	General Physics – II	--	100	40	100	40	04
-----	-----	-----	-----	-----	-----	-----	-----	-----
4.6A	406A	Solid State Physics (Special-I) (OR)	--	100	40	100	40	04
4.6B	406B	Electronics (Special-I)						
4.6C	406C	Nanoscience (Special-I)						
Seminar			--	25	10	25	10	01
Total						625		25

**SYLLABUS FOR**  
**M.Sc. COURSE IN ZOOLOGY**  
(With effect from the academic year 2021-22 Under CBCS system)



**DEPARTMENT OF ZOOLOGY**  
**KAKATIYA UNIVERSITY**  
**HANMAKONDA 506 009**  
**TELANGANA STATE**

**KAKATIYA UNIVERSITY, DEPARTMENT OF ZOOLOGY**  
(With effect from the academic year 2021-22 Under CBCS system)

S.No	Paper Code	Title of the Paper	Instruction Hrs/Week	No. of Credits	Marks		Total Marks
					External	Internal	
SEMESTER-I							
1	101	Biosystematics, Structure & Function Of Invertebrates	4	4	80	20	100
2	102	Tools and Techniques in Biology	4	4	80	20	100
3	103	Animal Physiology and Ethology	4	4	80	20	100
4	104	Genetics and Evolution	4	4	80	20	100
5	105	Practical-I	4	4	100	--	100
6	106	Practical-II	4	4	100	--	100
7	107	Seminar	--	1	--	25	25
		Total		25	520	105	625
SEMESTER-II							
1	201	Structure and Function of Vertebrates	4	4	80	20	100
2	202	Environmental Biology	4	4	80	20	100
3	203	Biochemistry	4	4	80	20	100
4	204	Biostatistics and Computer Applications	4	4	80	20	100
5	205	Practical-I	4	4	100	--	100
6	206	Practical-II	4	4	100	--	100
7	207	Seminar	--	1	--	25	25
		Total		25	520	105	625

Chairperson Board of Studies  
Department of Zoology

Kakatiya University  
WARANGAL - 506 009, T.S.

**HEAD**  
Department Of Zoology  
University College  
Kakatiya University.  
WARANGAL-506009(T.S.)

S.No	Paper Code	Title of the Paper	Instruction Hrs/Week	No. of Credits	Marks		Total Marks
					External	Internal	
SEMESTER-III							
1	301	Molecular Biology	4	4	80	20	100
2	302	Immunology	4	4	80	20	100
3	303	Subject Elective – I Parasitology (OR) Subject Elective – II Clinical Science	4	4	80	20	100
4	304	Subject Elective – III Endocrinology & Reproductive Physiolgy (OR) Subject Elective – IV Bioinformatics	4	4	80	20	100
5	305	Practical – I	4	4	100	--	100
6	306	Practical – II	4	4	100	--	100
7	307	Seminar	--	1	--	25	25
		Total		25	520	105	625
SEMESTER-IV							
1	401	Cell Biology	4	4	80	20	100
2	402	Developmental Biology	4	4	80	20	100
3	403	Subject Elective – I Fisheries And Aquaculture (OR) Subject Elective – II Neurophysiology	4	4	80	20	100
4	404	Subject Elective – III Animal Biotechnology (OR) Subject Elective – IV Entomology	4	4	80	20	100
5	305	Practical – I	4	4	100	--	100
6	406	Practical – II	4	4	100	--	100
7	407	Seminar	--	1	--	25	25
		Total		25	520	105	625
GRAND TOTAL (Sem I+II+III+IV)				100	2080	420	2500

Chairperson Board of Studies  
Department of Zoology

HEAD  
Department Of Zoology  
University College  
Kakatiya University.  
VARANGAL.-506009(T.S.)

# **KAKATIYA UNIVERSITY WARANGAL-506009**



**M.Sc. (Computer Science) Syllabus**

Under the

**CHOICE BASED CREDIT SYSTEM  
(With effect from 2017-18 onwards)**

**DEPARTMENT OF COMPUTER SCIENCE  
University College, KU, Warangal-506009**

**M.SC. I YEAR I SEMESTER:**

Paper No	Paper Title/Subject	Workload Per Week (Theory & Lab)	MARKS			CREDITS
			Internal	External	Total	
MSCCS111	DISCRETE MATHEMATICS	04	20	80	100	4
MSCCS112	OOPS WITH JAVA	04	20	80	100	4
MSCCS113	OPERATING SYSTEMS	04	20	80	100	4
MSCCS114	COMPUTER NETWORKS	04	20	80	100	4
MSCCS115	OOPS WITH JAVA LABORATORY	04	0	75	75	3
MSCCS116	OPERATING SYSTEM LABORATORY	04	0	75	75	3
MSCCS117	COMPUTER NETWORK S LABORATORY	04	0	75	75	3
MSCCS118	SEMINAR	--	25		25	1
					650	26





**KAKATIYA UNIVERSITY**  
**M.Sc. Microbiology Syllabus**  
**For the candidates admitted from the academic year 2021-2022**  
**For University College and affiliated colleges**

S. No	Paper Code	Title of Paper	Instruction Hours/week	No. of Credits	Marks		Total
					Internal Marks	External Marks	
Semester I							
1	MBT 101	General Microbiology	4	4	20	80	100
2	MBT 102	Virology	4	4	20	80	100
3	MBT 103	Biological Chemistry	4	4	20	80	100
4	MBT 104	Cell biology & Enzymology	4	4	20	80	100
5	MBP 105	General microbiology & Virology	6	4	-	100	100
6	MBP106	Biological chemistry & Cell Biology & Enzymology	6	4	-	100	100
7	MBS 107	Seminar	1	1		-	25
		Total		25			625
Semester II							
1	MBT 201	Microbial Physiology & Metabolism	4	4	20	80	100
2	MBT 202	Molecular Biology	4	4	20	80	100
3	MBT 203	Advanced Immunology	4	4	20	80	100
4	MBT 204	Biophysical Techniques & Instrumentation	4	4	20	80	100
5	MBP 205	Microbial Physiology & Molecular Biology	6	4	-	100	100
6	MBP 206	Adv. Immunol & Biophy. Tech. & Instrumentation	6	4	-	100	100
7	MBS 207	Seminar	1	1		-	25
		Total		25			625

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