# VAAGDEVI DEGREE & PG COLLEGE

**DIST:HANUMAKONDA,TELANGANASTATE–506001**

*(AffiliatedtoKakatiyaUniversity,Warangal)*

*(e-mail:*contact@vaagdevicolleges.com

*website:*www.vaagdevicolleges.com *)*


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

Number of Programmers 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 |
|---|---|---|---|
| 2022-2023 | 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: 2-03-2016

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 14th 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 (AISCHE) 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) |
| | | **SEMESTER – I** | | | | |
| 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 |
| | | **Total** | **25** | **25** | | |
| | | **SEMESTER – II** | | | | |
| 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 |
| | | **Total** | **25** | **25** | | |
| | | **SEMESTER – III** | | | | |
| 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 |
| | | **Total** | **25** | **25** | | |
| | | **SEMESTER – IV** | | | | |
| 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 |
| | | **Total** | **25** | **25** | | |

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

**ELS:** English Language Skill**; SLS**: Second Language Skill; **AEC: A**bility **E**nhancement **C**ompulsory **C**ourse; ***SEC: S**kill **E**nhancement **C**ourse; **DSC: D**iscipline **S**pecific **C**ourse; **DSE: D**iscipline **S**pecific **E**lective; **GE: G**eneric **E**lective; **T**: **T**heory; **P**: **P**ractical**; I**: Internal Exam **U: U**niversity Exam: **PR**: **P**roject **R**eport; **VV**: **V**iva-**V**oce 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** |
| | **TOTAL** | **38** | | **150** |
| | **Commerce** | **24** | | **106** |
| **CREDITS UNDER NON-CGPA** | | **NSS/NCC/Sports/Extra 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*

**B.COM (Tax Procedures)**
**CBCS COURSE STRUCTURE**
**w.e.f. 2019-'20**

| *Sl.No.* | *Code* | *Course Title* | *HPW* | *Credits* | *Exam Hrs* | *Marks* |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (5) | (6) | (7) | (8) |
| | | **SEMESTER – I** | | | | |
| 1. | ELS1 | English (First Language) | 4 | 4 | | |
| 2. | SLS1 | Second Language | 4 | 4 | | |
| 3. | AECC1 | Environmental Science/<br>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 |
| | | **Total** | **25** | **25** | | |
| | | **SEMESTER – II** | | | | |
| 7. | ELS2 | English (First Language) | 4 | 4 | | |
| 8. | SLS2 | Second Language | 4 | 4 | | |
| 9. | AECC2 | Basic Computer Skills/<br>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 |
| | | **Total** | **25** | **25** | | |
| | | **SEMESTER – III** | | | | |
| 13. | ELS3 | English (First Language) | 3 | 3 | | |
| 14. | SLS3 | Second Language | 3 | 3 | | |
| 15. | SEC1 UGC Specified Course | Communication Skills<br><br>Professional Skills | 2 | 2 | 1 ½ hrs | 40U+10I |
| 16. | SEC2 Dept. Specified Course | Principles of Insurance/<br>**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 |
| | | **Total** | **25** | **25** | | |
| | | **SEMESTER – IV** | | | | |
| 20. | ELS4 | English (First Language) | 3 | 3 | | |
| 21. | SLS4 | Second Language | 3 | 3 | | |
| 22. | SEC3 UGC Specified Course | Leadership & Management Skills<br><br>Universal Human Values | 2 | 2 | 1 ½ hrs | 40U+10I |
| 23. | SEC4 Dept. Specified Course | **a)** Practice of Life and General Insurance /<br>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 |
| | | **Total** | **25** | **25** | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **SEMESTER – V** | | | | |
| 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/<br>Financial Planning & Performance/<br>International Financial Reporting-I | 5 | 5 | 3 hrs | 80U+20I |
| 31. | DSE502 | Computerized Accounting/<br>Financial Decision Making-I/<br>International Tax &Regulation | 3T+4P/5 | 5 | 3 hrs | 50T+35P + 15I/ 80U+20I |
| 32. | DSE503 | Tax Planning & Management/<br>Advanced Corporate Accounting/<br>Financial Management | 5 | 5 | 3 hrs | 80U+20I |
| | | **Total** | **27/25** | **25** | | |
| | | **SEMESTER – VI** | | | | |
| 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/<br>Financial control/<br>International Financial Reporting-II | 5 | 5 | 3 hrs | 80U+20I |
| e) | DSE602 | Theory and Practice of GST/<br>Financial Decision Making-II /<br>InternationalAuditing | 3T+4P/5 | 5 | 3 hrs | 50T+35P + 15I/ 80U+20I |
| f) | DSE603 | International Tax & Regulation/<br>Corporate Governance/<br>Investment Management | 5 | 5 | 3 hrs | 80U+20I |
| | | **Total** | **29/27** | **25** | | |
| | | **GRAND TOTAL** | **156/152** | **150** | | |

**ELS:** English Language Skill**; SLS**: Second Language Skill; **AEC: A**bility **E**nhancement **C**ompulsory **C**ourse; ***SEC: S****kill* ***E****nhancement* ***C****ourse;* ***DSC: D****iscipline* ***S****pecific* ***C****ourse;* ***DSE: D****iscipline* ***S****pecific* ***E****lective;* ***GE: G****eneric* ***E****lective;* ***T****: Theory;* ***P****: Practical****; I****: Internal Exam* ***U: U****niversity Exam:* ***PR****: Project* ***R****eport;* ***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 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** |
| | **TOTAL** | **38** | | **150** |
| | **Commerce** | **24** | | **106** |
| **CREDITS UNDER NON-CGPA** | | **NSS/NCC/Sports/Extra 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.*

# B.COM (Computer Applications)

# CBCS COURSE STRUCTURE

| *Sl.No.* | *Code* | *Course Title* | *HPW* | *Credits* | *Exam Hrs* | *Marks* |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (5) | (6) | (7) | (8) |
| | | **I Year I Semester** | | | | |
| 1. | ELS1 | English (First Language) | 4 | 4 | | |
| 2. | SLS1 | Second Language | 4 | 4 | | |
| 3. | AECC1 | **a)**Environmental Science/<br>**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 |
| | | **Total** | **27** | **25** | | |
| | | **I Year II Semester** | | | | |
| 7. | ELS2 | English (First Language) | 4 | 4 | | |
| 8. | SLS2 | Second Language | 4 | 4 | | |
| 9. | AECC2 | **a)**Basic Computer Skills/<br>**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 |
| | | **Total** | **27** | **25** | | |
| | | **II Year I Semester** | | | | |
| 13. | ELS3 | English (First Language) | 3 | 3 | | |
| 14. | SLS3 | Second Language | 3 | 3 | | |
| 15. | SEC1 | **a)**Principles of Insurance/<br>**b)**Foundation of Digital Marketing/<br>**c)**Fundamentals of Business Analytics | 2 | 2 | 1 ½ hrs | 40U+10I |
| 16. | SEC2 | **a)**Practice of Life Insurance/<br>**b)**Web Design & Analytics/<br>**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 |
| | | **Total** | **27** | **25** | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **II Year II Semester** | | | | |
| 20. | ELS4 | English (First Language) | 3 | 3 | | |
| 21. | SLS4 | Second Language | 3 | 3 | | |
| 22. | SEC3 | **a)**Practice of General Insurance/<br>**b)**Social Media Marketing<br>**c)**Business Intelligence | 2 | 2 | 1 ½ hrs | 40U+10I |
| 23. | SEC4 | **a)**Regulation of Insurance Business/<br>**b)**Search Engine Optimization & Online Advertising<br>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 |
| | | **Total** | **27** | **25** | | |
| | | **III Year I Semester** | | | | |
| 27. | ELS5 | English (First Language) | 3 | 3 | | |
| 28. | SLS5 | Second Language | 3 | 3 | | |
| 29. | GE | a)Business Economics /<br>b) Advanced Aspects of Income Tax | 4 | 4 | 3 hrs | 80U+20I |
| 30. | DSE501 | **a)** Cost Accounting/<br>**b)** Financial Planning & Performance/<br>**c)** International Financial Reporting-I | 5 | 5 | 3 hrs | 80U+20I |
| 31. | DSE502 | **a)** Computerized Accounting/<br>**b)** Financial Decision Making-I/<br>**c)** International Tax &Regulation | 3T+4P/ 5 | 5 | 3 hrs | 50T+35P+ 15I/ 80U+20I |
| 32. | DSE503 | **a)** Management Information Systems/<br>**b)** Ecommerce/**c)** Mobile Applications | 3T+4P | 5 | 1 ½ hrs | 50T+35P+ 15I |
| | | **Total** | **29/27** | **25** | | |
| | | **III Year II Semester** | | | | |
| 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/<br>**b)** Financial control/<br>**c)** International Financial Reporting-II | 5 | 5 | 3 hrs | 80U+20I |
| 37. | DSE602 | **a)** Theory and Practice of GST/<br>**b)** Financial Decision Making-II /<br>**c)** InternationalAuditing | 3T+4P/ 5 | 5 | 3 hrs | 50T+35P+ 15I/ 80U+20I |
| 38. | DSE603 | **a)** Multimedia Systems/<br>**b)** Cyber Security/**c)** Data Analytics | 3T+4P | 5 | 1 ½ hrs | 50T+35P+ 15I |
| | | **Total** | **31/29** | **25** | | |
| | | **GRAND TOTAL** | **168/164** | **150** | | |

**ELS:** English Language Skill**; SLS**: Second Language Skill; **AEC: A**bility **E**nhancement **C**ompulsory **C**ourse; ***SEC: S**kill **E**nhancement **C**ourse; **DSC: D**iscipline **S**pecific **C**ourse; **DSE: D**iscipline **S**pecific **E**lective; **GE: G**eneric **E**lective; **T**: **T**heory; **P**: **P**ractical**; I**: Internal Exam **U: U**niversity Exam: **PR**: **P**roject **R**eport; **VV**: **V**iva- **V**oce 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 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** |
| | **TOTAL** | **40** | | **150** |
| | **Commerce** | **24** | | **106** |
| **CREDITS UNDER NON-CGPA** | | **NSS/NCC/Sports/ Extra Curricular** | **Up to 6 (2 in each year)** | |
| | | **Summer Internship** | **Up to 4 (2 in each after I & II years)** | |

| | | |
|---|---|---|
| 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 |
|---|---|---|---|---|---|---|---|---|
| | | | | | 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 | 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 | | | | |
| | | TOTAL: | 25 | - | 110 | 440 | 75 | 625 |

### SEMESTER – II

| Code | Course category | Title of the Paper | No. of Credits | 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 | 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 | | | | |
| | | TOTAL : | 25 | - | 110 | 440 | 75 | 625 |

# 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 | | | | |
| | | TOTAL: | 25 | - | 110 | 440 | 75 | 625 |

### 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 | | | | |
| | | TOTAL : | 25 | - | 110 | 440 | 75 | 625 |

# 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 | | | | |
| | | TOTAL: | 25 | - | 110 | 440 | 75 | 625 |

### 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 | | | | |
| | | TOTAL: | 25 | - | 110 | 440 | 75 | 625 |

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

**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 | Paper – I (DSC – A) | Programming with C | 4 | 4 | 100 |
| | | *Practical - 1* | *Programming with C (Lab)* | *3* | *1* | *25* |
| | SECOND | Paper – II (DSC – B) | Problem Solving and Python Programming | 4 | 4 | 100 |
| | | *Practical - 2* | *Problem Solving and Python Programming (Lab)* | *3* | *1* | *25* |
| II | THIRD | SEC - 1 | Mini Project - 1 (Lab) | 2 | 2 | 50 |
| | | SEC - 2 | University Specified Course **Bio Statistics** (Taught by: Statistics) | 2 | 2 | 50 |
| | | Paper – III (DSC – C) | Data Engineering with Python | 4 | 4 | 100 |
| | | *Practical - 3* | *Data Engineering with Python (Lab)* | *3* | *1* | *25* |
| | FOURTH | SEC – 3 | Mini Project - 2 (Lab) | 2 | 2 | 50 |
| | | SEC – 4 | University Specified Course **Remedial Methods of Pollution – Drinking Water & Soil Fertility** (Taught by: Chemistry) | 2 | 2 | 50 |
| | | Paper – IV (DSC – D) | Machine Learning | 4 | 4 | 100 |
| | | Practical - 4 | *Machine Learning (Lab)* | *3* | *1* | *25* |
| III | FIFTH | Paper – V (A) (DSE – A) | Natural Language Processing | 4 | 4 | 100 |
| | | Paper – V (B) (DSE – A) | No SQL Databases | 4 | 4 | 100 |
| | | *Practical – 5 (A)* | *Natural Language Processing (Lab)* | *3* | *1* | *25* |
| | | *Practical – 5 (B)* | *No SQL Databases (Lab)* | *3* | *1* | *25* |
| | | Paper VI - GE | Data Structures and Algorithms | 4 | 4 | 100 |
| | SIXTH | Paper – VII (A) (DSE – B) | Big Data | 4 | 4 | 100 |
| | | Paper – VII (B) (DSE – B) | Deep Learning | 4 | 4 | 100 |
| | | *Practical – 7 (A)* | *Big Data (Lab)* | *3* | *1* | *25* |
| | | *Practical – 7 (B)* | *Deep Learning (Lab)* | *3* | *1* | *25* |
| | | Paper VIII (Project) | Major Project | 4 | 4 | 100 |

# BBA Course Structure and Syllabus

## I YEAR I SEMESTER

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

## I YEAR II SEMESTER

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

## II YEAR I SEMESTER

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

## II YEAR II SEMESTER

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

## III YEAR I SEMESTER

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

## III YEAR II SEMESTER

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

# 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 | **Animal Diversity - Invertebrates** | 4 | 4 | 20 | 80 | 25 | 125 |
| | | **Lab -I** | 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 | | | | |
| | | **TOTAL:** | **25** | **-** | **110** | **440** | **75** | **625** |

### 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 | **Animal Diversity - Vertebrates** | 4 | 4 | 20 | 80 | 25 | 125 |
| | | **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 | | | | |
| | | **TOTAL:** | **25** | **-** | **110** | **440** | **75** | **625** |

# 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 | **Animal Physiology & Animal Behaviour** | 4 | 4 | 20 | 80 | 25 | 125 |
| | | **Lab** | 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 | | | | |
| | | **TOTAL:** | **25** | **-** | **110** | **440** | **75** | **625** |

### 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 | **Cell Biology, Genetics & Developmental Biology** | 4 | 4 | 20 | 80 | 25 | 125 |
| | | **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 | | | | |
| | | **TOTAL:** | **25** | **-** | **110** | **440** | **75** | **625** |

# 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 | | | | |
| | | **TOTAL:** | **25** | **-** | **110** | **440** | **75** | **625** |

### 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, Zoogeograpy & Evolution** | 4 | 4 | 20 | 80 | 25 | 125 |
| | | **Optional – III LAB** | 1 | 3 | | | | |
| | | **TOTAL:** | **25** | **-** | **110** | **440** | **75** | **625** |

**KAKATIYA UNIVERSITY - TELANGANA**

-21 onwards)

**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

**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 |
| FIRST | I | 101: Mechanics | DSC-1 | 4 | 4 | 20 | 80 |
| | | 101(P): Mechanics Lab (Pr) | DSC-1(P) | 3 | 1 | - | 25 |
| | II | 201: Waves and Oscillations | DSC-2 | 4 | 4 | 20 | 80 |
| | | 201(P): Waves and Oscillations Lab (Pr) | DSC-2(P) | 3 | 1 | - | 25 |
| SECOND | III | 301: Thermal Physics | DSC-3 | 4 | 4 | 20 | 80 |
| | | 301(P): Thermal Physics Lab (Pr) | DSC-3(P) | 3 | 1 | - | 25 |
| | IV | 401: Optics | DSC-4 | 4 | 4 | 20 | 80 |
| | | 401(P): Optics Lab (Pr) | DSC-4(P) | 3 | 1 | - | 25 |
| THIRD | V | 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)<br>A. Solid state physics<br>B. Modern Optics | DSE-1 | 3 | 3 | 15 | 60 |
| | | 502(P): Elective (Practical) - 1 (A/B/C)<br>A. Solid state physics Lab<br>B. Modern Optics Lab | DSE-1(P) | 3 | 1 | - | 25 |
| | VI | 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)<br>A. Basic Electronics<br>B. Physics of Semiconductor devices | DSE-2 | 3 | 3 | 15 | 60 |
| | | 602(P): Elective (Practical) – 2 (A/B/C)<br>A. Basic Electronics Lab<br>B. Physics of Semiconductor devices Lab | DSE-2(P) | 3 | 1 | - | 25 |
| | | **Total** | | | **36** | **140** | **760** |
| | | | | | | **Grand Total : 900** | |

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

Dr. B. Venkatram Reddy
Chairman, Board of Studies in Physics, KU, Wgl
Date: 24th Aug., 2016 & 5th 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 | | | 20 | |
| 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 | | | |
| | | **Total** | **29** | **27** | **100** | **450** | **550** |

## 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 | | | |
| | | **Total** | **33** | **29** | **110** | **490** | **600** |

* 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 | | | |
| | | **Total** | **27** | **27** | **100** | **450** | **550** |

### 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 | | | |
| | | Total | 31 | 29 | 110 | 490 | 600 |

* 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 |
| **310: Accounting and Finance - Electives** | | | | | | | |
| 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 |
| **320: Marketing Management - Electives** | | | | | | | |
| 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 |
| **330: Human Resource Management - Electives** | | | | | | | |
| 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 |
| **Total** | | | **29** | | **118** |

## 4. Examination and Assessment

**U**nder 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

**SGPA** (Si) =∑(Cix Gi) /∑Ci

Where Ci is the number of credits of the ith course and Gi is the grade point scored by the student in the ith 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.

**CGPA** = ∑(Ci x Si) / ∑ Ci

Where Si is the SGPA of the ith semester and Ci 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 |
| Course6 | 4 | B | 8 | 4X8 = 32 |
| Course 7 | 4 | B | 8 | 4X8 = 32 |
| | 28 | | | 216 |

Thus, **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 x 7.71) + (30x 6.98) + (28x 6.22) + (32 x 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-voice. The Second semester end Viva-voce is based on the subjects studied in I and II semesters. The forth 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.

a. Date of Examination / Presentation
b. Names of the Students and their Signature
c. Subject / Topic Concerned
d. 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. Acertificate 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

| CBCS KU MBA– I Semester | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 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<br>1. Business Environment – I(a) (Or)<br>2. Entrepreneurship Development – I (b) | Generic | 4 | 4 | 20 | 10 | 70 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 7 | MB107 | Generic Elective – II<br>1. Managerial Economics – II(a) (Or)<br>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<br>1. Business Ethics –III(a)(Or)<br>2. Retail Management – III(b) | Generic | 4 | 4 | 20 | 10 | 70 | |
| 7 | MB207 | Generic Elective – IV<br>1. Business Analytics using Excel – IV(a) (Or)<br>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<br>a) e-Business<br>Or<br>b) Business Law | Open | 4 | 4 | 20 | 10 | 70 | |
| 5 | MB305<br>MB306<br>MB307 | Discipline Specific Elective I<br>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<br>a) Personal Finance (or) b) MIS | Open | 4 | 4 | 20 | 10 | 70 | |
| 6 | MB406<br>MB407<br>MB408 | Discipline Specific Electives (3) I<br>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 |
| **Group-B: MARKETING MANAGEMENT** | | | | | | | | |
| 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 |
| **Group-C: FINANCIAL MANAGEMENT** | | | | | | | | |
| 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 |
| **Group-D: SYSTEMS MANAGEMENT** | | | | | | | | |
| 6 | MB305D | Relational Data Base Management System | 4 | 4 | 20 | 10 | 70 | 100 |
| 7 | MB306D | Management of Software Projects<br>Enterprise Resource Planning (ERP)<br>System Analysis and Design | 4 | 4 | 20 | 10 | 70 | 100 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | MB307D | Enterprise Resource Planning (ERP) | 4 | 4 | 20 | 10 | 70 | 100 |

**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) | MARKS | | | 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 |
| **Grand total (Marks and Credits)** | | | | | **650** | **26** |

**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) | MARKS | | | 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 |
| **Grand total (marks and credits)** | | | | | **650** | **26** |

**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) | MARKS | | | 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 |
| **Grand total (marks and credits)** | | | | | **650** | **26** |

## 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) | MARKS | | | 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 |
| **Grand total (marks and credits)** | | | | | **550** | **22** |

**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) | MARKS | | | 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 |
| **Grand total (Marks and Credits)** | | | | | **650** | **26** |

**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 | ICHP3 | 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 |

Dean

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

## 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 |

Dean

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

## 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 |

## 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 |

# 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 |
| TOTAL | | 16 | 18 | 125 | 500 | 625 | 25 | |

## 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 | TECHNOLOPGY 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 |
| TOTAL | | 16 | 18 | 125 | 500 | 625 | 25 | |

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

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

| Paper Code | Title | Workload Per Week hrs | | Marks | | | Credits | Duration ofthe 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<br>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<br>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 FST222 | 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 | |

Chairperson Board of Studies
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WARANGAL - 506 009, T.S.

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**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 Assess-ment Marks | Semester End Exam Marks | | | Credits (L+P) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Theory | Practical | Total | |
| I | M1CP1 | Algebra | 6 | 20 | 80 | - | 100 | 6 |
| II | M1CP2 | Real Analysis | 6 | 20 | 80 | - | 100 | 6 |
| III | M1CP3 | Ordinary Differential Equations | 6 | 20 | 80 | - | 100 | 6 |
| IV | M1CP4 | Discrete Mathematics | 6 | 20 | 80 | - | 100 | 6 |
| V | M1CP5 | Fundamentals of Statistics | 6 | 20 | 80 | - | 100 | 6 |
| | | Seminar | 2 | | | | 25 | 1 |
| | | | | | Total Credits | | | 31 |

**SEMESTER-II**

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

**SEMESTER-III**

| Paper | Code of The paper | Title of The paper | No. of Periods (1 hr duration) per week | Internal Assess-ment 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 Assess-ment 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 |
| **Total** | **124** | **2100** |

The Scheme of 1st 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)**
**1st 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 2nd Internal Assessment of each paper of Semester-I to IV is as follows:

## 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** |



Chairperson 19.10.2015
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KAKATIYA UNIVERSITY
WARANGAL-506 009 (TS)

## 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)** | | | | | | |
| 3.3B | 303B | Electronics: (Special -I) Microprocessors **(OR)** | 20 | 80 | 32 | 100 | 40 | 04 |
| 3.3C | 303C | Nanoscience: Special -I Material Science – I | | | | | | |
| 3.4A | 304A | Solid state Physics: (Special –II) **(OR)** | | | | | | |
| 3.4B | 304B | Electronics:(Special -II) Comm. Systems **(OR)** | 20 | 80 | 32 | 100 | 40 | 04 |
| 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)** | -- | | | | | |
| 3.6B | 306B | Electronics (*Special-I*) | -- | 100 | 40 | 100 | | 04 |
| 3.6C | 306C | **(OR)** Nanoscience (*Special-I*) | -- | | | | | |
| Seminar | | | -- | 25 | 10 | 25 | 10 | 01 |
| **Total** | | | | | | **625** | | **25** |



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## 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)** | | | | | | |
| 4.3B | 403B | Electronics: (Special -III) Microcontrollers **(OR)** | 20 | 80 | 32 | 100 | 40 | 04 |
| 4.3C | 403C | Nanoscience: Special -III Material Science – II | | | | | | |
| 4.4A | 404A | Solid state Physics: (Special –IV) **(OR)** | | | | | | |
| 4.4B | 404B | Electronics:(Special -IV) Optical, Satellite and Mobile Comm. Systems **(OR)** | 20 | 80 | 32 | 100 | 40 | 04 |
| 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)** | | | | | | |
| 4.6B<br>4.6C | 406B<br>406C | Electronics (*Special-I*) **(OR)** Nanoscience (*Special-I*) | -- | 100 | 40 | 100 | 40 | 04 |
| Seminar | | | -- | 25 | 10 | 25 | 10 | 01 |
| **Total** | | | | | | **625** | | **25** |



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# 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<br>Parasitology<br>(OR)<br>Subject Elective – II<br>Clinical Science | 4 | 4 | 80 | 20 | 100 |
| 4 | 304 | Subject Elective – III<br>Endocrinology & Reproductive Physiolgy<br>(OR)<br>Subject Elective – IV<br>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<br>Fisheries And Aquaculture<br>(OR)<br>Subject Elective – II<br>Neurophysiology | 4 | 4 | 80 | 20 | 100 |
| 4 | 404 | Subject Elective – III<br>Animal Biotechnology<br>(OR)<br>Subject Elective – IV<br>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** |

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# 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 | OPERATI NG 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 |