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

1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

Choice Based Credit System (CBCS) and Elective Courses are introduced in the college during 2020-21 for UG and PG Programmes. UG Students are asked to choose any Three DSC for I sem to IV sem. Further they are asked to choose one paper from three DSE in V and VI sem as DSE. For PG program, in addition to DSC, and one Open Elective subject is given in II Semester and III Semester of the program. Students can take any subject (which is listed by University) other than their PG course subject.

During academic year 2021- 22, Government Of Karnataka Rolled out CBCS system for UG and PG programmes and National Educational Policy-2020 introduced. Karnatak University being one of the premier universities of the state adopted NEP and implemented for UG and PG courses. As per Karnatak University guidelines the institute has introduced NEP -2020 during 2021-22.

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ
ಧಾರವಾಡ

ದಿನಾಂಕ 21.05.2020 ರಂದು ಜರುಗಿದ
ಸಾಮಾನ್ಯ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಡುವಳಿಗಳು

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ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ.

No KU/Aca(S&T)/SBK-370/Ord. A.C. Meet/2019-20/ 51 ದಿನಾಂಕ : 30 MAY 2020

ವಿಷಯ: ದಿನಾಂಕ 21.05.2020 **ರಂದು ಮುಂಜಾನೆ 11.30 ಗಂಟೆಗೆ ಗೋಲ್ಡನ್ ಜ್ಯೂಬ್ಲಿ ಸಭಾ ಭವನದಲ್ಲಿ** ಜರುಗಿದ ಸಾಮಾನ್ಯ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಡುವಳಿಗಳು (Proceedings of the Ordinary Academic Council Meeting held on 21.05.2020).

ಉಲ್ಲೇಖ: 1. ಮೀಟಿಂಗ್ ನೋಟಿಸ್ ಸಂಖ್ಯೆ:KU/Aca(S&T)/SBK-370/Ord A.C. Meet/2019-20/12, dt. 13.05.2020.

2. KU/Reg/2019-20/A-267, dt. 30.05.2020. (ನಡುವಳಿಗಳು)

ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಗೆ ಹಾಜರಿದ್ದ ಸದಸ್ಯರು:

1	ಮಾನ್ಯ ಕುಲಪತಿಗಳು (ಅಧ್ಯಕ್ಷರು)	18	ಗ್ರಂಥಪಾಲಕರು, (ಸದಸ್ಯರು)
2	ಶ್ರೀ ಎ.ಓ. ಪಾಟೀಲ (ಸದಸ್ಯರು)	19	ನಿರ್ದೇಶಕರು, ಯೋಜನೆ, ಮೇಲ್ವಿಚಾರಣೆ ಮತ್ತು ಮೌಲ್ಯಮಾಪನ ಮಂಡಳಿ (ಸದಸ್ಯರು)
3	ಶ್ರೀ ಅಬ್ದುಲ್ ಎಸ್. ಅಜರೇಕರ (ಸದಸ್ಯರು)	20	ನಿರ್ದೇಶಕರು, ವಿದ್ಯಾರ್ಥಿ ಕಲ್ಯಾಣ ವಿಭಾಗ (ಸದಸ್ಯರು)
4	ಡಾ. ಎಂ.ಎಲ್.ಗುಳೇದಗುಡ್ಡ (ಸದಸ್ಯರು)	21	ನಿರ್ದೇಶಕರು, ದೈಹಿಕ ಶಿಕ್ಷಣ ವಿಭಾಗ (ಸದಸ್ಯರು)
5	ಡಾ. ಎಂ. ಎನ್. ಮೀರಾನಾಯ್ಕ (ಸದಸ್ಯರು)	22	ನಿರ್ದೇಶಕರು, ಕಾಲೇಜು ಅಭಿವೃದ್ಧಿ ಮಂಡಳಿ (ಸದಸ್ಯರು)
6	ಡಾ. ಎಂ. ಜಿ. ಸಜ್ಜನವರ (ಸದಸ್ಯರು)	23	ಕುಲಸಚಿವರು(ಮೌಲ್ಯಮಾಪನ) (ಸದಸ್ಯರು)
7	ಡಾ.(ಶ್ರೀಮತಿ) ರೇಖಾ ಎಂ. ಜೋಗುಳ	24	ಹಣಕಾಸು ಅಧಿಕಾರಿಗಳು (ಸದಸ್ಯರು)
8	ಡಾ.(ಶ್ರೀಮತಿ) ಎಸ್.ಆರ್. ಇನಾಮದಾರ (ಸದಸ್ಯರು)	25	ಕುಲಸಚಿವರು (ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು)
9	ಡಾ. ವ್ಹಿ. ಕೆ. ರೇವಣಕರ (ಸದಸ್ಯರು)	**ವಿಶೇಷ ಆಹ್ವಾನಿತರು**	
10	ಡಾ. ಎಸ್.ಆರ್. ಇನಾಮದಾರ (ಸದಸ್ಯರು)	1	ಡಾ. ಟಿ.ಎಂ. ಭಾಸ್ಕರ, ಡೀನ್, ಕಲಾ ನಿಖಾಯ
11	ಡಾ. ಬಿ.ಡಿ. ಕುಂಬಾರ(ಸದಸ್ಯರು)	2	ಡಾ. ಆರ್.ಆರ್. ಮದನಕರ, ಡೀನ್, ಶಿಕ್ಷಣ ನಿಖಾಯ
12	ಡಾ. ಎಂ.ಎ. ಜಾಲಿಹಾಳ (ಸದಸ್ಯರು)	3	ಡಾ. ಶಿವಪ್ಪ, ಡೀನ್, ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ನಿಖಾಯ
13	ಡಾ. ಎಂ.ವಿಶ್ವನಾಥ (ಸದಸ್ಯರು)	4	ಡಾ. ಎಂ.ವಿಶ್ವನಾಥ, ಡೀನ್, ಕಾನೂನು ನಿಖಾಯ
14	ಡಾ. ಟಿ.ಎಂ. ಭಾಸ್ಕರ (ಸದಸ್ಯರು)	5	ಡಾ. ಎಂ.ಎ. ಜಾಲಿಹಾಳ, ಡೀನ್, ಸಮಾಜ ವಿಜ್ಞಾನ ನಿಖಾಯ
15	ಡಾ. ಆರ್.ಆರ್. ಮದನಕರ (ಸದಸ್ಯರು)	6	ಡಾ. ಚೆ. ರಮೇಶ, ಡೀನ್, ವಿಜ್ಞಾನ ಮತ್ತು ತಂತ್ರಜ್ಞಾನ ನಿಖಾಯ
16	ಡಾ. ಶಿವಪ್ಪ (ಸದಸ್ಯರು)	7	ಡಾ.(ಶ್ರೀಮತಿ) ಎ.ಎನ್.ತಾಮ್ರಗುಂಡಿ, ಡೀನ್, ವಾಣಿಜ್ಯ ನಿಖಾಯ
17	ಡಾ.(ಶ್ರೀಮತಿ) ಎ.ಎನ್.ತಾಮ್ರಗುಂಡಿ (ಸದಸ್ಯರು)		

Hon'ble Vice-Chancellor welcomed all the members to the Academic Council, after thorough deliberations, the following resolutions were passed

<table>
<tr><th>ಕಲಂ. ಸಂ.</th><th>ಕಾರ್ಯಸೂಚಿ</th><th>ವಿಭಾಗ/ ಕಚೇರಿ</th><th>ನಿರ್ಣಯ</th></tr>
<tr><td>1</td><td>ದಿನಾಂಕ: 28.12.2019 ರಂದು ಜರುಗಿದ ಸಾಮಾನ್ಯ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆ, ದಿನಾಂಕ 14.11.2019 ಹಾಗೂ 12.02.2020 ರಂದು ಜರುಗಿದ ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಡುವಳಿಗಳನ್ನು (Proceedings) ದೃಢೀಕರಿಸುವದು ಮತ್ತು ಕ್ರಮಕೈಗೊಂಡ ಬಗ್ಗೆ ಸಂಕ್ಷಿಪ್ತ ವರದಿಯನ್ನು (Brief Action Taken Report) ಮಂಡಿಸುವ ಕುರಿತು.</td><td>Academic (S&T) Section</td><td>1. ದಿನಾಂಕ 14.11.2019 ರಂದು ಜರುಗಿದ ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಡುವಳಿಗಳನ್ನು ದೃಢೀಕರಿಸಲಾಯಿತು.
2. ದಿನಾಂಕ 28.12.2019 ರಂದು ಜರುಗಿದ ಸಾಮಾನ್ಯ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಡುವಳಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಈ ಕೆಳಕಂಡ ಕಲಂಗಳ ನಿರ್ಣಯದಲ್ಲಿ ಅಲ್ಪ ಮಾರ್ಪಾಡುಗಳೊಂದಿಗೆ ದೃಢೀಕರಿಸಲಾಯಿತು.
<table>
<tr><th>ಕಲಂ ಸಂ.</th><th>ಹಿಂದಿನ ನಿರ್ಣಯ</th><th>ಪರಿಷ್ಕರಿಸಿ ದೃಢೀಕರಿಸಿದ ನಿರ್ಣಯ</th></tr>
<tr><td>4.</td><td>The Academic Council Approved the resolution of Social Science Faculty regarding revision of the P.G syllabus of Political Science and marks allotment with effect from the academic year 2020-21 ಎಂದು ನಿರ್ಣಯಿಸಿದ್ದು ಇರುತ್ತದೆ. ಆದರೆ Deferred ಎಂದು ಮುದ್ರಣವಾಗಿತ್ತು.</td><td>ಸದರ ವಿಷಯವನ್ನು Approved ಎಂದು ಮಾರ್ಪಾಡಿಸಲಾಗಿದೆ.</td></tr>
<tr><td>5.</td><td>The Academic Council resolved to defer the resolution of Social Science Faculty regarding starting of new course in PG Diploma in Archaeology & Museology. ಎಂದು ನಿರ್ಣಯವಾಗಿದ್ದು ಇರುತ್ತದೆ. ಆದರೆ ಎ.ಟಿ.ಆರ್. ಕಾಲಂನಲ್ಲಿ ಇತಿಹಾಸ ಹಾಗೂ ಪ್ರಾಚ್ಯಶಾಸ್ತ್ರದ 3ನೇ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಓ.ಇ.ಸಿ. ಪಠ್ಯಕ್ರಮ ಪರಿಷ್ಕರಣೆ ತಯಾರಿಸಿದ ಅಧಿಸೂಚನೆ ಹೊರಡಿಸಲಾಗಿದೆ. ಎಂದು ಮುದ್ರಣವಾಗಿರುತ್ತದೆ.</td><td>Deferred</td></tr>
</table>
3. ದಿನಾಂಕ 12.2.2020 ರಂದು ಜರುಗಿದ ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಡುವಳಿಗಳನ್ನು ದೃಢೀಕರಿಸಲಾಯಿತು.</td></tr>
</table>

2	Consideration of recommendation of Deans Committee regarding implementation of CBCS (General) for UG Course from academic year 2020-21 & onwards.	Academic (S&T) Section	ಸಿ.ಬಿ.ಸಿ.ಎಸ್ ಪದ್ಧತಿಯನ್ನು ಕ.ವಿ.ವಿ.ಯಲ್ಲಿ ಅಳವಡಿಸುವ ಪ್ರಸ್ತಾವನೆಯ ಬಗ್ಗೆ ಡಾ. ಬಿ.ಡಿ.ಕುಂಬಾರ, ಸದಸ್ಯರು ಇವರು ಮಾತನಾಡಿ ರಾಜ್ಯದ ಬೇರೆ ಬೇರೆ ವಿಶ್ವವಿದ್ಯಾಲಯಗಳಲ್ಲಿ ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಪದ್ಧತಿಯನ್ನು ಅಳವಡಿಸಿರುವ ಬಗ್ಗೆ ಪರಿಶೀಲಿಸುವುದು ಸೂಕ್ತವೆಂದು ಅಭಿಪ್ರಾಯ ವ್ಯಕ್ತಪಡಿಸಿದರು. ಡಾ. ಬಿ.ಡಿ.ಕುಂಬಾರ ಮತ್ತು ಡಾ. ಎಂ.ಎನ್.ಮೀರಾನಾಯಕ, ಸದಸ್ಯರು ಇವರು ಮಾತನಾಡಿ ಸಿಬ್ಬಂದಿ ಮತ್ತು ಸಲಕರಣೆಗಳ ಲಭ್ಯತೆ ಹಾಗೂ ಇತರ ವಿಷಯಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಪ್ರಾಂಶುಪಾಲರ ಸಭೆ ಕರೆದು ಚರ್ಚಿಸುವುದು ಸೂಕ್ತವೆಂದು ಸಲಹೆ ನೀಡಿದರು. ಅಂತಿಮವಾಗಿ ಸುದೀರ್ಘವಾದ ಚರ್ಚೆಯಾದ ನಂತರ **"ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಪದ್ಧತಿಯನ್ನು (General)ಅಳವಡಿಸುವ ಕುರಿತು ತಯಾರಿಸಿದ ಕರಡು ವಿನಿಯಮಾವಳಿಗಳನ್ನು (Draft Regulations) ಅನುಮೋದನೆಗಾಗಿ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಲು ನಿರ್ಣಯಿಸಲಾಯಿತು."**
3	Consideration of recommendation of Deans Committee regarding implementation of CBCS (Honours) for UG Course from academic year 2020-21 & onwards.	Academic (S&T) Section	ಈ ವಿಷಯವನ್ನು ಮುಂದೂಡಲಾಯಿತು.
4	Consideration of recommendation of Arts Faculty regarding the recommend that the candidates with Hindi as a subject (MIL) in any degree are also eligible to seek admission for M.A.Hindi with not less than 45% marks in aggregate and 55% in Hindi Language.		ಸದರ ಪ್ರಸ್ತಾವನೆ ಬಗ್ಗೆ ಡಾ. ಬಿ.ಡಿ.ಕುಂಬಾರ, ಸದಸ್ಯರು ಇವರು ಮಾತನಾಡಿ Basic, Optional and Elective ವಿಷಯಗಳನ್ನು ತೆಗೆದುಕೊಂಡು ವ್ಯಾಸಂಗ ಮಾಡಿರುವ ವಿದ್ಯಾರ್ಥಿಗಳ ಅಂಕಗಳು ಮತ್ತು ಸೆಮಿಸ್ಟರ್‌ಗಳ ಬಗ್ಗೆ ಸ್ಪಷ್ಟತೆ ಇರುವುದಿಲ್ಲ. ಆದರೂ ಸಹ 55%ರ ಬದಲಾಗಿ 60% ನಿಗದಿಪಡಿಸುವುದರೊಂದಿಗೆ ಅನುಮತಿಸಬಹುದು ಹಾಗೂ ಹಿಂದಿ ವಿಭಾಗದ ಅಧ್ಯಕ್ಷರೊಂದಿಗೆ ಸಂಪರ್ಕಿಸಿ ವಿದ್ಯಾರ್ಥಿಗಳ ಭವಿಷ್ಯದ ಬಗ್ಗೆ ಮತ್ತು ಉದ್ಯೋಗಾವಕಾಶದ ಬಗ್ಗೆ (ಕೆ.ಪಿ.ಎಸ್.ಸಿ.ಯಿಂದ ನೇಮಿಸುವ) ಆಗು ಹೋಗುಗಳನ್ನು ಚರ್ಚಿಸುವುದು ಸೂಕ್ತವೆಂದು ಮಂಡಿಸಿದರು. ಅದರಂತೆ ಡಾ. ಎಂ.ಎ.ಜಾಲಿಹಾಳ ಮತ್ತು ಡಾ.(ಶ್ರೀಮತಿ) ರೇಖಾ ಜೋಗಳ, ಸದಸ್ಯರು ಸಹ ವಿಷಯದ ಬಗ್ಗೆ ಸಲಹೆ ಸೂಚನೆಯನ್ನು ನೀಡಿದರು. **ಅಂತಿಮವಾಗಿ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥರನ್ನು ಕರೆಸಿ Intake ಮತ್ತು Infrastructure ಬಗ್ಗೆ ಹಾಗೂ ಇತರ ಸಮಸ್ಯೆಗಳ ಮಾಹಿತಿ ಪಡೆಯ ಬೇಕಾಗಿರುವ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಈ ವಿಷಯವನ್ನು ಮುಂದೂಡಲಾಯಿತು.**
5	Consideration of recommendation of Faculty of Law (PG) regarding the Re-Introduction of the Two years LL.M (Full Time) Programme strictly from the Academic Year 2020-21.		In order to maintain the uniformity with the existing practice in the University in allotting the marks for internal and theory, the council resolved to **approve** the proposal with a change in the proposal making 25 marks for internal and 75 for theory. Similarly, 150 marks for desertation and 50 marks for Viva-voce.

6	ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ MA Social Work (1st to 4th Semester) ಪದವಿಯಲ್ಲಿ ಅತೀ ಹೆಚ್ಚು ಅಂಕ ಪಡೆದು ಪ್ರಥಮ ಶ್ರೇಣಿಯಲ್ಲಿ ಪಾಸಾದ ವಿದ್ಯಾರ್ಥಿನಿಗೆ "Prof. Vineeta B.Pai Gold Medal Instituted by her students" ಇವರ ಹೆಸರಿನಲ್ಲಿ ಸುವರ್ಣ ಪದಕ ಸ್ಥಾಪನೆ ಮಾಡುವ ಕುರಿತು ಪ್ರಸ್ತಾವನೆಯನ್ನು ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯಲ್ಲಿ ಪರಿಶೀಲನೆಗಾಗಿ ಮಂಡಿಸುವ ಕುರಿತು.	Scholarship Section	ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ MA Social Work (1st to 4th Semester) ಪದವಿಯಲ್ಲಿ ಅತೀ ಹೆಚ್ಚು ಅಂಕ ಪಡೆದು ಪ್ರಥಮ ಶ್ರೇಣಿಯಲ್ಲಿ ಪಾಸಾದ ವಿದ್ಯಾರ್ಥಿನಿಗೆ **"Prof. Vineeta B.Pai Gold Medal Instituted by her students"** ಇವರ ಹೆಸರಿನಲ್ಲಿ ಸುವರ್ಣ ಪದಕ ಸ್ಥಾಪನೆ ಮಾಡುವ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಚರ್ಚಿಸಿ ಸಭೆಯು ಅನುಮೋದಿಸಿತು.
Supplementary Agenda			
7	ಯು.ಜಿ.ಸಿ. ಪತ್ರ ಸಂಖ್ಯೆ D.O. No. F.1-1/2018 (Journal/CARE) date: December, 2019ರ ಪ್ರಕಾರ ಎಲ್ಲ ಪಿಎಚ್.ಡಿ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ Pre-registration Course Workಗೆ Research and Publication Ethics (RPE) ತರಗತಿಗಳನ್ನು ಕಡ್ಡಾಯವಾಗಿ ತೆಗೆದುಕೊಳ್ಳಲು ಸೂಚಿಸಿದನ್ವಯ, 2019–20ನೇ ಸಾಲಿನಿಂದ ಪಿಎಚ್.ಡಿ ನೋಂದಣಿ ಪಡೆದ ಸಂಶೋಧನಾ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಸದರಿ ತರಗತಿಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳಲು ಅನುಮೋದನೆ ಕುರಿತು.	Academic (PG & Ph.D) Section	ಯು.ಜಿ.ಸಿ. ಪತ್ರ ಸಂಖ್ಯೆ D.O. No. F.1-1/2018 (Journal/CARE) date: December, 2019ರ ಪ್ರಕಾರ ಎಲ್ಲ ಪಿಎಚ್.ಡಿ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ Pre-registration Course Workಗೆ Research and Publication Ethics (RPE) ತರಗತಿಗಳನ್ನು ಕಡ್ಡಾಯವಾಗಿ ತೆಗೆದುಕೊಳ್ಳಲು ಸೂಚಿಸಿದನ್ವಯ, **2019–20ನೇ ಸಾಲಿನಿಂದ ಪಿಎಚ್.ಡಿ ನೋಂದಣಿ ಪಡೆದ ಸಂಶೋಧನಾ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ತರಗತಿಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳಲು ಸಭೆಯು ಅನುಮೋದಿಸಿತು.**
8	ಯು.ಜಿ.ಸಿ. ನಿಯಮಾವಳಿ ಎಪ್ರೀಲ್ 2020ರ ಪ್ರಕಾರ, ಎಂ.ಫಿಲ್ / ಪಿ.ಎಚ್.ಡಿ ಮೌಖಿಕ ಪರೀಕ್ಷೆಯನ್ನು Video Conference ಮೂಲಕ ಜರುಗಿಸುವ ಕುರಿತು.		ಈ ಬಗ್ಗೆ ಪರಿಷತ್ತಿನಲ್ಲಿ ಚರ್ಚಿಸಿ ನಿಯಮಾವಳಿ ಪ್ರಕಾರ ಎಂ.ಫಿಲ್/ಪಿ.ಎಚ್.ಡಿ. ಮೌಖಿಕ ಪರೀಕ್ಷೆಯನ್ನು **Online** ನಲ್ಲಿ ಜರುಗಿಸಿ ದಾಖಲೆಗಳನ್ನು ನಿರ್ವಹಿಸಲು ಸೂಚಿಸುವದರೊಂದಿಗೆ ಅನುಮೋದಿಸಿತು.

30/05/2020

ಕುಲಸಚಿವರು

ಗೆ,

1. ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಎಲ್ಲ ಮಾನ್ಯ ಸದಸ್ಯರು. (ಸದಸ್ಯರ ಪಟ್ಟಿಯಂತೆ) ಇ–ಮೇಲ್ ಮುಖಾಂತರ ರವಾನಿಸಲಾಗಿದೆ.
2. ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿಗಳು, ಉನ್ನತ ಶಿಕ್ಷಣ ಇಲಾಖೆ (ವಿಶ್ವವಿದ್ಯಾಲಯ) ಕರ್ನಾಟಕ ಸರಕಾರ, ಬಹುಮಹಡಿಗಳ ಕಟ್ಟಡ, ಬೆಂಗಳೂರು.
3. ಸನ್ಮಾನ್ಯ ಕುಲಾಧಿಪತಿಗಳ ಮತ್ತು ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಮಾನ್ಯ ರಾಜ್ಯಪಾಲರ ಕಾರ್ಯದರ್ಶಿಗಳು, ರಾಜಭವನ, ಬೆಂಗಳೂರು.

ಪ್ರತಿ ಸಾದರಪೂರ್ವಕವಾಗಿ ಮಾಹಿತಿಗಾಗಿ:

1. ಮಾನ್ಯ ಎಲ್ಲ ಸಿಂಡಿಕೇಟ ಸಭೆಯ ಸದಸ್ಯರು (ಪಟ್ಟಿಯಂತೆ) (**ಸಿಂಡಿಕೇಟ ಸಭೆಯ ತರಾವು ಸಂಖ್ಯೆ:57. ದಿನಾಂಕ: 20–02–**
   ಪರಿಷತ್ ಸಭೆಯ ನಡೆವಳಿಗಳನ್ನು ಕಳುಹಿಸಿ ಕೊಡಲಾಗಿದೆ.)
2. ಕುಲಸಚಿವರು (ಮೌಲ್ಯಮಾಪನ), ಕವಿವಿ, ಧಾರವಾಡ.
3. ಕುಲಪತಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕವಿವಿ, ಧಾರವಾಡ.
4. ಕುಲಸಚಿವರ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕವಿವಿ, ಧಾರವಾಡ.
5. ಎಲ್ಲ ನಿಖಾಯಗಳ ಡೀನರು, ಕವಿವಿ, ಧಾರವಾಡ.
6. ನಿರ್ದೇಶಕರು, ಯೋಜನಾ ಹಾಗೂ ಅಭಿವೃದ್ಧಿ, ಸಿ.ಡಿ.ಸಿ, ವಿದ್ಯಾರ್ಥಿ ಕಲ್ಯಾಣ, ದೈಹಿಕ ಶಿಕ್ಷಣ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
7. ಗ್ರಂಥಪಾಲಕರು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
8. ವಿತ್ತಾಧಿಕಾರಿಗಳು, ಕವಿವಿ, ಧಾರವಾಡ.
9. ಚೇರಮನ್, ಪತ್ರಿಕೋದ್ಯಮ ವಿಭಾಗ, ಕವಿವಿ, ಧಾರವಾಡ.
10. ಸ್ಥಾನಿಕ ಅಭಿಯಂತರರು, ಕವಿವಿ, ಧಾರವಾಡ.
11. ಉಪಕುಲಸಚಿವರು, ವಿದ್ಯಾಮಂಡಳ, ಡಿಪಿಎಆರ್, ಪರೀಕ್ಷಾ / ದೂರ ಶಿಕ್ಷಣ ವಿಭಾಗ, ಎಸ್.ಸಿ/ಎಸ್.ಟಿ ಸೆಲ್, ಕವಿವಿ, ಧಾರ
12. ಅಧೀಕ್ಷಕರು, ಯೋಜನಾ ಹಾಗೂ ಅಭಿವೃದ್ಧಿ, ವಿದ್ಯಾಮಂಡಳ (ಪಿಜಿ), ಸಿ.ಡಿ.ಸಿ, ಸಿಂಡಿಕೇಟ, ಶಿಷ್ಯ ವೇತನ, ಪರೀಕ್ಷಾ (
    (ಜಿ.ಎ.ಡಿ) ವಿಭಾಗ, ಕ.ವಿ.ವಿ, ಧಾರವಾಡ.

ಕೆ.ಎಲ್.ಇ. ಸಂಸ್ಥೆಯ
ಲಿಂಗರಾಜ ಮಹಾವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ.
ಸ್ವಾಯತ್ತ
K.L.E. Society's
LINGARAJ COLLEGE, BELAGAVI.
Autonomous
Re-Accredited at the 'A' level by NAAC | College with Potential for Excellence
Since 1916

Ref. No: LCB/BOS/2021-22/376/Geo Date: 30/9/2021

ATTENDANCE CERTIFICATE

This is to certify that Dr.L.T.Nayak. Associate Professor, Department of Geography, Karnatak Science College Dharwad, has attended Board of Studies Meeting in Geography of this college on 30th September 2021. We are very much thanking full for your service.

Date: - 30-09-2021
Place: - Belagavi

Principal
Lingaraj College (Autonomous)
Belgaum

ಬೆಂಗಳೂರು ನಗರ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ BENGALURU CITY UNIVERSITY
Office of the Registrar, Central College Campus, Dr. B.R. Ambedkar Veedhi, Bengaluru – 560 001.
PhNo.080-22131385, E-mail: registrarbcu@gmail.com

No: BCU/ BoS/ Geography UG /130/2021-22 Date: 23.08.2021
27

NOTIFICATION

Sub: Re-Constitution of Board of Studies in Geography (UG) - reg.

Ref: 1. Resolution of the Syndicate meeting held on 13.08.2021.
2. Approval of the Vice-Chancellor Dated: 23.08.2021.

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Pursuant to the resolution of the Syndicate cited at reference (1) above and under Section 33 of the Karnataka State Universities Act 2000 and relevant Statutes, the Board of Studies in **Geography (UG)** for Bengaluru City University is re-constituted as follows with immediate effect for a period of 3 years or until further orders.

1.	Dr. Rajasekaran D Associate Professor, Department of Geography Government Arts College, Dr.Ambedkar Veedhi, Bangalore-560001.	Chairman
2.	Dr. Ashok D. Hanjagi Professor, Department of Geography, Bangalore University, Bengaluru – 560 056.	Member
3.	Dr. Surendra P Assistant Professor, Department of Geography Bangalore University, Bengaluru – 560 056.	Member
4.	Dr. Shivamurthy H N Assistant Professor, Department of Geography Government Arts College, Dr.Ambedkar Veedhi, Bangalore-560001.	Member
5.	Dr. Afsari Jan Assistant Professor, Department of Geography Abbas Khan College for Women Durga Complex, OTC Road, Cubban Pet, Bangalore-560 002.	Member
6.	Dr. L T Naik Associate Professor, Department of Geography Karnataka Science College, Dharwad-580001.	Member
7.	Sri K N Mahadev Prasad Department of Geography Maharani First Grade College, Mysore- 570 006.	Member

Karnataka University, Dharwad

Ref. No. KU/Aca(S&T)/SVB-75/Ad-hoc /Biotechnology (UG) /21-22/ 1596 Date: 12 JAN 2022

Proceedings of the meeting of Ad-hoc in Biotechnology (UG) held on 22nd December, 2021 at 11.00 a.m. in the Dept. of Bio-technology, Karnatak University, Dharwad.

The following members were present:

1.	Dr. A.B.Vedamurthy	Chairman
2.	Dr. C.T.Shivasharan	Member
3.	Dr. C.G.Patil	Member
4.	Dr. (Smt) R.D.Sankal	Member
5.	Dr.S.I.Manawadi	Member

Resolutions:

Item No. 1) Confirmation of the minutes of the last meeting held on 13th September, 2021

Res No.1: Read and confirmed the minutes of the last meeting held on 13th September, 2021

Item No. 2) Updating the panel of examiners for B.Sc. Biotechnology for the year 2021-22

Res No.2: The panel of eligible examiners/paper setters for B.Sc. Biotechnology has been updated for the year 2021-22.

Item No. 3) Updating the panel of examiners for B.Sc. I – III Year for the year 2021-22

Res No.3: Not applicable

Item No. 4) To discuss regarding UG-CBCS Biotechnology Syllabus.

Res No. 4: Not applicable, since NEP-2020 is implementing from the year 2021-22.

Item No. 5) Preparation of UG syllabus of B.Sc. III & IV Semester Biotechnology Course (As per the regulations of National Education Policy 2020)

Res No. 5: Since, the Government of Karnataka has not released model syllabus for B.Sc. III & IV Semester Biotechnology. It was resolved to prepare the syllabus for B.Sc. III & IV Semester (Biotechnology), once the model syllabus received from the State Core Committee of NEP-2020

Item No. 6) Preparation of syllabus as per UGC guidelines for Apprenticeship/Internship embedded Degree programme at UG Level.

Res No.6: It was resolved to request the University to take necessary steps for planning to start Apprenticeship/Internship embedded Degree programme at CBCS UG Level in Karnatak University, Dharwad, since the subject not comes under the purview of Biotechnology Ad-hoc.

Item No. 7) Any other matter with permission of chair.

Res No. 7: No matter to discuss.

Sd/-
Chairman Ad-hoc (UG)
Dept., of Biotech. & Microbiology
K.U.Dharwad

YUVARAJA'S COLLEGE (AUTONOMOUS), MYSORE
(A Constituent Autonomous College of the University of Mysore)

Karnatak University, Dharwad

Ref. No. KU/Aca(S&T)/SVB-20/BOS / Geology (PG) /20-21/ 205 Date: 30 NOV 2020

Proceedings of the meeting of Board of Studies in Geology (PG) held on 12th Oct, 2020 at 11.00 a.m. in the Dept. of Geology, Karnatak University, Dharwad.

The following members were present:

1. Dr. A. Sreenivasa — Chairman
2. Dr. J. T. Gudagur — Member
3. Dr. R. Y. Budihal — Member

Resolutions:

Item No. 1 and 2: Not applicable to PG BOS.
Item No.3: Preparation of the Panel of Board of Examiners (BOE) based on the seniority for I, III and II, IV Semesters in Geology for the academic year 2019-20.
Resolution: The Panel of Board of Examiners (PG) for the above said semesters based on the seniority of the teachers is submitted to the Registrar (Evaluation), Karnatak University, Dharwad as per the agenda given by the academic section, K.U. Dharwad. (List Enclosed)

Item No. 4: Not applicable to PG BOS.
Item No. 5: There is no correspondence course in Geology.
Item No. 6: There is no correspondence course in Geology.
Item No. 7: This is not applicable to PG BOS.
Item No. 8: Any other item with the permission of chair

Resolution: No items.

Sd/-
Chairman BOS (PG)
Dept., of Geology,
K.U.Dharwad

To,
1. Dr. A. Sreenivasa - Chairman, BOS in Geology (PG) K.U. Dharwad
2. Dr. J. T. Gudagur, Member, Associate Professor, Karnatak Science College,Dharwad (PG)
3. Dr. R. Y. Budihal, Member, Associate Professor, Karnatak Science College, Dharwad (PG)
4. Dr. Shivanna, Professor, Dept. of Marine Geology, Mangalore University, Mangalore. (External Member PG)

REGISTRAR

Copy to:
1. Dr. Ch.Ramesh, Dean Faculty of Science & Technology, PG Dept. of Studies in Botany, K.U. Dharwad for kind information and perusal with a request to identify the item to be placed before the Science & Technology faculty meeting.
2. The Registrar (Evaluation), K.U.Dharwad.
3. P.S. to Vice-Chancellor, K.U.Dharwad.
4. S.A. to Registrar, K.U.Dharwad.

KSCD/200 - 100 / 762. date 03/10/19

From,
Smt. Ambika Ramchandra
Asst. Professor,
Department of Computer Science,
Karnatak Science College,
Dharwad

Date: 01-10-2019

To,
The Registrar
Karanatak University,
Dharwad

Sub: Sanction of OOD to attend BOS meeting.

Sir,

With reference to the above subject. The BOS meeting is convened on 01-10-2019 at Computer Science Department, KUD Dharwad. To attend the meeting grant me one day OOD.

Thanking you

Yours faithfully,

(Ambika Ramchandra)

Submitted through The Principal, Karnatak Science College, Dharwad.

O/C

Co-ordinator
Dept. of B.C.A. & B.Sc. (Comp. Sc.)
Karnatak Science College,
DHARWAD

E-mail: codgeolkud.yahoo.co.in

Phone: (0836) 2215288

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

KARNATAK UNIVERSITY, DHARWAD

ಭೂವಿಜ್ಞಾನ ವಿಭಾಗ

DEPARTMENT OF STUDIES IN GEOLOGY

"University with Potential for Excellence"

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ- 580003
ಧಾರವಾಡ-ಭಾರತ

'A' Grade

Pavate Nagar, Dharwad-580 003

Ref.No.KU/Geol/2020-21/

Date : 20.02.2021

ATTENDANCE CERTIFICATE

This is to certify that, **Dr. J. T. Gudagur**, Associate Professor, Karnatak Science College, Dharwad has attended **the Preparing Programme Outcomes M.Sc. Applied Geology (PG CBCS Syllabus)** Board of Studies Meeting as a member **on 20.02.2021** at 11.00 a.m. in the Department of studies in Geology, Karnatak University, Dharwad.

Chairman, BOS
Dept. of studies in Geology,
K.U. Dharwad.

Phone: 2415792
Email: principal.ycm@rediffmail.com

UNIVERSITY OF MYSORE
YUVARAJA'S COLLEGE (Autonomous)
(CONSTITUENT COLLEGE WITH "POTENTIAL FOR EXCELLENCE")
[Re-accredited with 'A' Grade by NAAC]
JLB Road, MYSORE – 570 005

No. UOM/YCM/Gen/ 310 /2020-21 Date: 09-09-2020

Reconstitution of the Board of Studies of the Autonomous College

Ref: Chapter-VI, Section 6.5 of the **statutes** relating to Autonomous College/ Institutions of University of **Mysore** 1999.

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NOTIFICATION

Pursuant to the approval of the Honourable Vice Chancellor and Chairman of the Governing Body, it is hereby notified that the **Board of Studies in Geology (UG)** of the autonomous college is constituted with effect from the date of this notification under Chapter VI, Section 6.5 of the statutes referred above with the following members:

1. Dr. M.R. Janardhana Head of the Department	Chairman
2. Dr. S. Suresha, Dept. of Env. Sci., YCM	Member
3. Dr. S. Srikantaswamy, CDC, UOM	Member
4. Dr. R.Y. Budhihal, Associate Professor, Dept. of Geology, Karnatak Science College, Dharwad - 580001	Member
5. Dr. S. Manjunath, Associate Professor, Dept. of Geology, Karnatak Science College, Dharwad - 580001	Member
6. Prof. H.T. Basavarajappa Manasagangothri, Mysuru-570006.	Member
7. Mr. Shibin John, Associate Manager- Geology, Vedanta Limited, Megalahally Office Complex, Bheemasamudra, Chithradurga-577520	Member
8. Mr. Santhosh Prabhu, Research Assistant, Dept. of Civil Enginering (Geology), Manipal Institute of Technology, Madhav Nagar, Manipal, Karnataka - 576104	Member
9. Dr. Chandrakantha G., Professor, Dept. of Applied Geology, Kuvempu University, Shankargatta, Shimmogga 577451.	Member
10. Dr. Gangadhar Bhar H., Professor, Dept. of Marine Geology, Mudlpu- Konaje, Mangalagangotri, Mangalore, Karnataka-574199	Member
11. Dr. Annapoorna Hebbar, Guest Faculty, Dept. of Geology, YCM	Member

1. The term of the nominated members shall be two years.
2. The Principal of the College shall draw the schedule for meeting of the Board of Studies for different departments.
3. The Members are requested to kindly accept the nomination and give your valuable suggestions/guidance in framing the syllabus of the course.

Principal
10/9/2020

☎ Office : 2372285
Principal : 2376943, (R) 2278195
Office Fax : 0836-2375379
E-mail : jabincollege@gmail.com
Website : http://www.jabincollege.com

K. L. E. SOCIETY'S

P. C. JABIN SCIENCE COLLEGE,

VIDYANAGAR, HUBBALLI-580031.

AUTONOMOUS COLLEGE

CPE - CONTINUATION PHASE-III

Re-Accredited by NAAC at 'A' Level with 3.43 CGPA

Ref. No. PCJ/BoS/21-22/26 Date : 15/4/2021

To,
Dr. (Smt) Mangala S.Nayak
Associate Professor in Zoology
Karnatak College Dharwad
Dharwad

Madam:

Sub: Nomination to the Board of Studies regarding.

Greetings from P.C. Jabin Science College, Hubballi.

With reference to the subject cited above, we are delighted to learn your nomination as Principal Nominee on our Board of Studies in Zoology. We congratulate and welcome for your nomination. Your rich experience and guidance will definitely motivate to enhance the quality in the institution.

This is the college providing education in science. Established by KLE Society in 1957. College offers B.Sc. BCA, Courses in UG and M.Sc in four subjects. NAAC has reaccredited our College at 'A' level with CGPA 3.43 in the 4th cycle.

Once again we express our pleasure for your nomination and oblige, with kinds regards,

Thanking You Sir

Yours faithfully

Principal

Karnatak University, Dharwad

11 NOV 2020

Ref. No. KU/Aca(S&T)/SVB-30/ Ad-hoc /Microbiology (UG) /20-21/ 1147 Date:

Proceedings of the meeting of Board of Studies in Microbiology (UG) held on 19th Oct, 2020 at 11.00 a.m. in the Dept. of Microbiology, Karnatak University, Dharwad.

The following members were present:

1.	Dr. M.B. Hiremath	Chairman
2.	Dr. R.Y.Katti	Member
3.	Dr. (Smt) Mangala Nayak	Member
4.	Dr. C.G.Patil	Member

Resolutions 1. **Confirmation of the minutes of the last meeting held on 07/07 /2020**

The minutes of the last BOS meeting of UG in Microbiology held on 07/07/2020 were read and confirmed.

2. **To revise and approve the seniority list of BoE for UG B.Sc. I – VI Semester (CBCS) Course in B.Sc Microbiology and B.Sc in Industrial Microbiology for the academic year 2020-21.**

It was resolved to approve the seniority of the BOE panel of Examiners for B.Sc in Microbiology and B.Sc in Industrial Microbiology for the academic year 2020-21 was scrutinized and updated in the light of some members attaining superannuation.

3. Updating the panel of examiners for School of Correspondence Education: NA Not applicable to B.Sc Microbiology and B.Sc in Industrial Microbiology.

4. Observations/correction/revision of syllabus-School of Correspondence Education (Non-Semester): NA Not applicable to B.Sc Microbiology and B.Sc in Industrial Microbiology.

5. Any other matter with the permission of the Chair.

There was no matter to be discussed

Sd/-
Chairman Ad-hoc (UG)
Dept., of Microbiology,
K.U.Dharwad

To,

1. Dr. M. B. Hiremath, Chairman Chairman, Dept. of Studies in Microbiology & Biotechnology K.U. Dharwad
2. Dr. R. Y. Katti, Member Dept. of Botany, Kittel Science College, Dharwad.
3. Dr.(Smt) Mangala Nayak Member Dept of Zoology, Karnatak Science College, Dharwad.
4. Dr. C. G. Patil Member Dept. of Botany, Karnatak Science College, Dharwad.
5. Dr Chetan J. D. Member Dept. of Biotechnology , Karnatak University, Dharwad
6. Dr. Ramalingappa External Member Dept. of Microbiology Davangere University, Davangere

REGISTRAR 9/11/2020

Copy to:

5. Dr. Ch.Ramesh, Dean Faculty of Science & Technology, PG Dept. of Studies in Botany, K.U. Dharwad for kind information and perusal with a request to identify the item to be placed before the Science & Technology faculty meeting.
6. The Registrar (Evaluation), K.U.Dharwad.
7. P.S. to Vice-Chancellor, K.U.Dharwad.

K. L. E. SOCIETY'S
P. C. JABIN SCIENCE COLLEGE,
VIDYANAGAR, HUBBALLI-580031
AUTONOMOUS COLLEGE
CPE - CONTINUATION PHASE-III
Re-Accredited by NAAC at 'A' Level with 3.43 CGPA

Ref. No. PJ/20-21/ Date 1/12/20

To,
Dr. O. Kotresh
Associate professor
Department of chemistry
Karnatak Science College, Dharwad

Sub: Attendance Certificate

Sir,

This is to certify that **Dr.O.Kotresh** Associate Professor Department of Chemistry, Karnatak Science college, Dharwad has attended the BOS meeting in Chemistry course on Tuesday the 01.12.2020 in the Department of Chemistry, P. C. Jabin Science college, Hubballi.

HOD

PRINCIPAL

Syllabus:

Karnatak University, Dharwad

NAAC Accredited with "A" Grade-2014

Syllabus and Structure
For
B.Sc. Botany
(I-VI SEMESTER)

UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)

With Effect from 2020-21 onwards

SEMESTER III

CORE COURSE BOTANY –PAPER III
PLANT ANATOMY AND EMBRYOLOGY
(Credits: Theory-4, Practicals-2)
THEORY

Lectures: 60

Unit 1: Meristematic and permanent tissues **(8 Hours)**

Root and shoot apical meristems; Simple and complex tissues.

Unit 2: Organs **(4 Hours)**

Structure of dicot and monocot root stem and leaf.

Unit 3: Secondary Growth **(8 Hours)**

Vascular cambium – structure and function, seasonal activity. Secondary growth in root and stem, Wood (heartwood and sapwood).

Unit 4: Adaptive and protective systems **(8 Hours)**

Epidermis, cuticle, stomata; General account of adaptations in xerophytes and hydrophytes.

Unit 5: Structural organization of flower **(8 Hours)**

Structure and development of anther and pollen; Structure and development of ovule, types of ovules; Types of embryo sacs, organization and ultra structure of mature embryo sac.

Unit 6: Pollination and fertilization **(8 Hours)**

Pollination mechanisms and adaptations; Double fertilization; Seed-structure appendages and dispersal mechanisms.

Unit 7: Embryo and endosperm **(8 Hours)**

Endosperm types, structure and functions; Dicot and monocot embryo; Embryo-endosperm relationship.

Unit 8: Apomixis and polyembryony **(8 Hours)**

Definition, types and practical applications.

SEMESTER IV

CORE COURSE BOTANY –PAPER IV

PLANT PHYSIOLOGY, METABOLISM AND PHYTOCHEMISTRY

(Credits: Theory-4, Practicals-2)

THEORY

Lectures: 60

Unit 1: Plant-water relations **(8 Hours)**

Importance of water, water potential and its components; Transpiration and its significance; Factors affecting transpiration; Root pressure and guttation.

Unit 2: Mineral nutrition **(6 Hours)**

Essential elements, macro and micronutrients; Criteria of essentiality of elements; Role of essential elements; Transport of ions across cell membrane, active and passive transport, carriers, channels and pumps.

Unit 3: Translocation in phloem **(6 Hours)**

Composition of phloem sap, girdling experiment; Pressure flow model; Phloem loading and unloading.

Unit 4: Photosynthesis **(12 Hours)**

Photosynthetic Pigments (Chl a, b, xanthophylls, carotene); Photosystem I and II, reaction center, antenna molecules; Electron transport and mechanism of ATP synthesis; C_3, C_4 and CAM pathways of carbon fixation; Photorespiration.

Unit 5: Respiration **(6 Hours)**

Glycolysis, anaerobic respiration, TCA cycle; Oxidative phosphorylation, Glyoxylate, Oxidative Pentose Phosphate Pathway.

Unit 6: Enzymes **(4 Hours)**

Structure and properties; Mechanism of enzyme catalysis and enzyme inhibition.

Unit 7: Plant growth regulators **(6 Hours)**

Discovery and physiological roles of auxins, gibberellins, cytokinins, ABA, ethylene.

Unit 8: Plant response to light and temperature **(6 Hours)**

Karnatak University, Dharwad

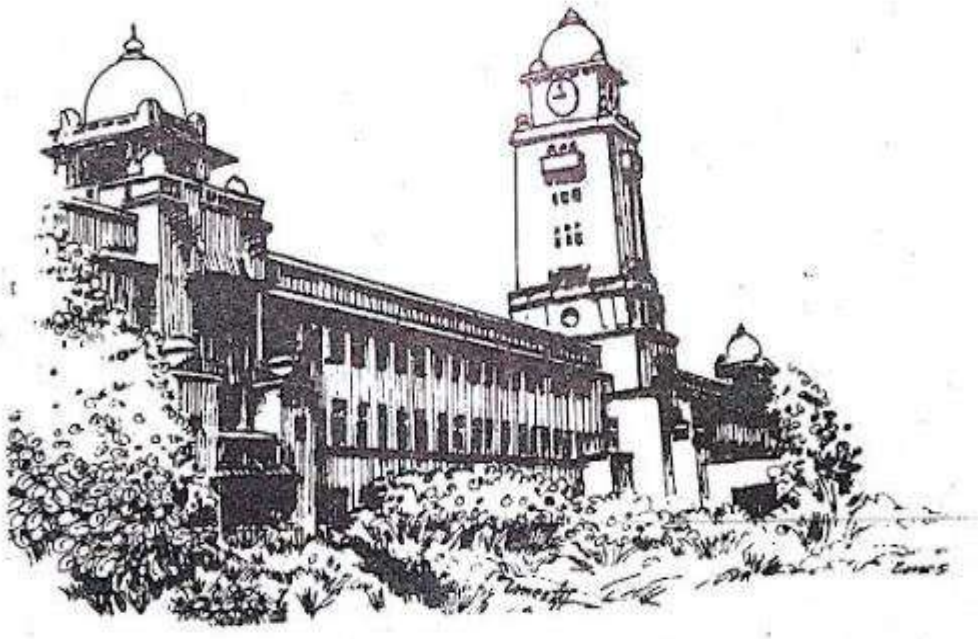
NAAC Accredited with "A" Grade-2014

B.Sc. Programme

Syllabus for

CHEMISTRY (OPTIONAL)

AS DISCIPLINE SPECIFIC COURSE (DSC)
and
SKILL ENHANCEMENT COURSE (SEC)
UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)



Effective from 2020-21

Discipline Specific Course (DSC) under CBCS

B.Sc. Semester - III

CHEMISTRY: CHT: C

Credits: I. Theory : 04 Theory class 4hrs /wk. Total theory: 60 Lectures
80 marks for Sem end Examination(3 hrs) & 20 marks IA
II. Practical : 02 Practical: 4 hrs./wk. Total Practical: 52 hrs.
40 marks for Sem end Examination(3 hrs) & 10 marks IA
Total Credits : 06 Total Theory marks 100 and Practical marks 50

Chemical Energetics: First Law of Thermodynamics. Enthalpy, concept of standard state, standard enthalpy, Types of enthalpies: formation, combustion, neutralization, integral and differential enthalpies of solution and dilution, lattice enthalpy(numerical problems). Calculation of bond energy, bond dissociation energy and resonance energy from thermochemical data. Variation of enthalpy of a reaction with temperature – Kirchhoff's equation. **(08 Lectures)**

Chemical Equilibrium: Limitations of first law of thermodynamics, concept of entropy, Second law of thermodynamics, Free energy, free energy change in a chemical reaction. Thermodynamic derivation of the law of chemical equilibrium. Distinction between ΔG and ΔG^{O}, Le Chatelier's principle. Relationships between K_p, K_C and K_X for reactions involving ideal gases(numerical problems). Third Law of thermodynamics and calculation of absolute entropies of substances. **(08 Lectures)**

Ionic Equilibria: Strong, moderate and weak electrolytes with examples, degree of ionization, factors affecting degree of ionization, ionization constant and ionic product of water. Ionization of weak acids and bases, pH scale, common ion effect. Salt hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Buffer solutions. Solubility and solubility product of sparingly soluble salts – applications of solubility product principle(numerical problems). **(10 Lectures)**

Distribution law: Nernst distribution law and its derivation. Limitations of law. Modification of distribution law for change in molecular state(association and dissociation). Application in solvent extraction- simple and multiple extractions. Derivation for multiple extraction(numerical problems). **(4 Lectures)**

Carboxylic acids and their derivatives: Functional group approach for the following reactions (preparations & reactions) to be studied in context to their structure.
Carboxylic acids (aliphatic and aromatic):*Preparation:* Acidic and Alkaline hydrolysis of esters. *Reactions:* Hell – Vohlard - Zelinsky Reaction.
Carboxylic acid derivatives (aliphatic) (Up to 5 carbons) : *Preparation:* Acid chlorides, Anhydrides, Esters and Amides from acids and their interconversion. *Reactions:* Comparative study of acylation of acyl derivatives. Reformatsky Reaction, Perkin condensation. **(6 Lectures)**

Amines and Diazonium Salts: Amines (Aliphatic and Aromatic): (Up to 5 carbons)
Preparation: from alkyl halides, Gabriel's Phthalimide synthesis, Hofmann Bromamide reaction. *Reactions:* Hofmann vs. Saytzeff elimination, Carbylamine test, Hinsberg test, with HNO_2, Schotten – Baumann Reaction. Electrophilic substitution (case aniline): nitration, bromination, sulphonation.
Diazonium salts: *Preparation:* from aromatic amines. *Reactions:* conversion to benzene, phenol, dyes. **(6 Lectures)**

Heterocyclic Compounds: Classification and nomenclature, Structure, aromaticity in 5-numbered and 6-membered rings containing one heteroatom; Synthesis, reactions and mechanism of substitution reactions of: Furan, Pyrrole (Paal-Knorr synthesis, Knorr pyrrole synthesis, Hantzsch synthesis), Thiophene, Pyridine (Hantzsch synthesis), Pyrimidine, Structural elucidation of Indole,

Discipline Specific Course (DSC) under CBCS

B.Sc. Semester - IV

CHEMISTRY: CHT: D

Credits: I. Theory : 04 Theory class 4hrs /wk. Total theory: 60 Lectures
80 marks for Sem end Examination(3 hrs) & 20 marks IA
II. Practical : 02 Practical: 4 hrs./wk. Total Practical: 52 hrs.
40 marks for Sem end Examination(3 hrs) & 10 marks IA
Total Credits : 06 Total Theory marks 100 and Practical marks 50

Chemistry of *s* and *p* Block Elements:
Diagonal relationship and anomalous behaviour of first member in s block elements. Complex formation tendency of *s* and *p* block elements. Structure, bonding, preparation, and uses of boron nitrides, borohydrides (diborane), carboranes, silicates, oxides and oxoacids of nitrogen, peroxo acids of sulphur, interhalogen compounds, polyhalide ions, pseudohalogens. Bonding in XeF_2, XeF_4 and XeO_3.

(10 Lectures)

Chemistry of *d* and *f* Block Elements:
Transition Elements: General group trends with special reference to electronic configuration, colour, variable valency, magnetic and catalytic properties, ability to form complexes. Stability of various oxidation states. Chemistry of Ti, V, Cr, Mn, Fe and Co in various oxidation states (excluding their metallurgy)
Lanthanides and Actinides: Electronic configuration, oxidation states, colour, spectral and magnetic properties, lanthanide contraction, separation of lanthanides (ion-exchange method only).Preparation of Trans-uranic elements. **(10 Lectures)**
Coordination Chemistry-I: Werner's theory, IUPAC system of nomenclature, Structural and stereoisomerism in complexes with coordination numbers 4 and 6. Valence Bond Theory (VBT): Inner and outer orbital complexes of Cr, Fe, Co, Ni and Cu (coordination numbers 4 and 6). Drawbacks of VBT. **(5Lectures)**
Nuclear Chemistry: Nuclear particles (positron, neutrino, mesons, pions and quarks), nuclear instability, Nuclear reactions [(α, n), (n, α), (α, p), (p, α), (p, n), & (n, p)], nuclear fission, nuclear reactor and types of nuclear reactors in India, applications of radioisotopes in tracer technique, and carbon dating(numerical , problems). **(05Hours)**
Solutions: Thermodynamics of ideal solutions: Ideal solutions and Raoult's law, deviations from Raoult's law – non-ideal solutions. Vapour pressure-composition and temperature-composition curves of ideal and non-ideal solutions. Distillation of solutions. Lever rule. Azeotropes. Partial miscibility of liquids: Critical solution temperature; effect of impurity on partial miscibility of liquids. Immiscibility of liquids- Principle of steam distillation.
(6 Lectures)

Phase Equilibrium: Phases, components and degrees of freedom of a system, criteria of phase equilibrium. Gibbs Phase Rule and its thermodynamic derivation. Derivation of Clausius – Clapeyron equation and its importance in phase equilibria. Phase diagrams of one-component systems (water and sulphur) and two component systems involving eutectics, congruent and incongruent melting points (lead-silver, $FeCl_3$-H_2O and Na-K only).

(8 Lectures)

Conductance: Ionic conductance, ohms law, conductivity, equivalent and molar conductivity and their variation with dilution for weak and strong electrolytes. Kohlrausch law of independent migration of ions. Conductivity cell, measurement of conductance of ionic solution and its applications in : a) determination of degree of ionization of weak electrolyte b) solubility and solubility products of sparingly soluble salts c) ionic product of water d) hydrolysis constant of a salt and e) conductometric titrations of acid- base(numerical problems).

Karnatak University, Dharwad

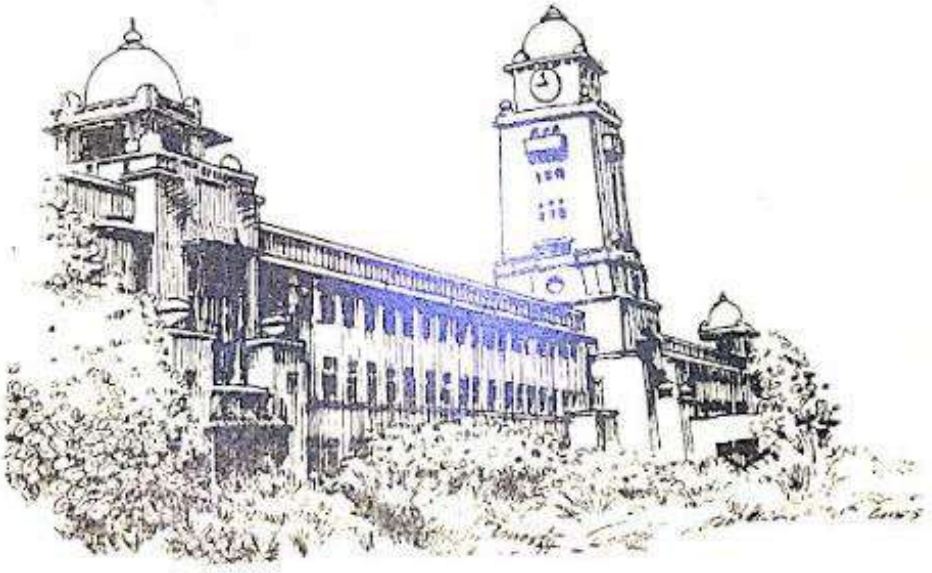
NAAC Accredited with "A" Grade-2014

B.Sc. Programme

Regulations & Syllabus for

BACHELOR OF COMPUTER SCIENCE (B.Sc. (CS)

AS DISCIPLINE SPECIFIC COURSE (DSC)
GENERIC ELECTIVE (GE) and
SKILL ENHANCEMENT COURSE (SEC)
UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)



Effect from 2020-21 and onwards

SEMESTER - III

Course	Paper Code	Paper Title Theory/Practical	Credits	No. of Hrs/ Week Theory/ Practical	Total Hours	Duration of Exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks for Final Exam Theory/ Practical	Total Marks
AECC	B.Sc.(CS)-3.1	English - 3	3	3	45	3	20	80	100
AECC	B.Sc.(CS)-3.2	MIL – 3	3	3	45	3	20	80	100
DSC	B.Sc.(CS)-3.3	Data Structures using C	4 + 0	4	48	3	20	80	100
DSC	B.Sc.(CS)-3.4	Microprocessor 8085	4 + 0	4	48	3	20	80	100
DSC	B.Sc.(CS)-3.5	Fundamentals of Digital Electronics	3 + 1	4	48	3	20	80	100
DSC	B.Sc.(CS)-3.6	Data Communications	3 + 1	4	48	3	20	80	100
DSC	B.Sc.(CS)-3.7	Data Structures Lab	2	4	48	3	10	40	50
DSC	B.Sc.(CS)-3.8	Microprocessor Lab	2	4	48	3	10	40	50
	Total		26	30			140	560	700

SEMESTER - IV

Course	Paper Code	Paper Title Theory/Practical	Credits	No. of Hrs/ Week Theory/ Practical	Total Hours	Duration of Exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks for Final Exam Theory/ Practical	Total Marks
AECC	B.Sc.(CS)-4.1	English - 4	3	3	45	3	20	80	100
AECC	B.Sc.(CS)-4.2	MIL – 4	3	3	45	3	20	80	100
DSC	B.Sc.(CS)-4.3	Data Base Management System	4 + 0	4	48	3	20	80	100
DSC	B.Sc.(CS)-4.4	JAVA Programming	4 + 0	4	48	3	20	80	100
DSC	B.Sc.(CS)-4.5	Operation Research	3 + 1	4	48	3	20	80	100
DSC	B.Sc.(CS)-4.6	Software Engineering	3 + 1	4	48	3	20	80	100
DSC	B.Sc.(CS)-4.7	DBMS LAB	2	4	48	3	10	40	50
DSC	B.Sc.(CS)-4.8	Java LAB	2	4	48	3	10	40	50
	Total		26	30			140	560	700

Karnatak University, Dharwad

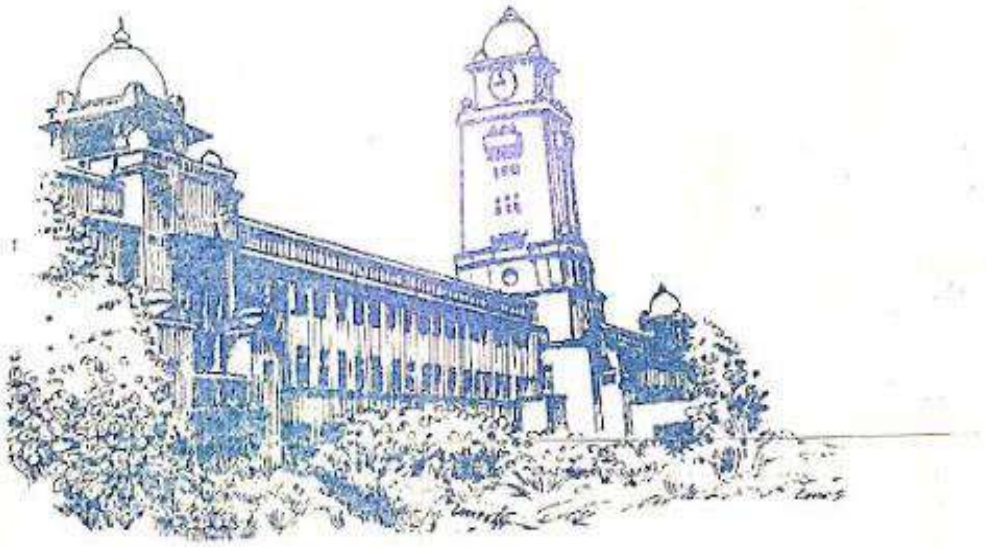
NAAC Accredited with "A" Grade-2014

B.A. Programme

Syllabus for

CRIMINOLOGY AND FORENSIC SCIENCE

AS DISCIPLINE SPECIFIC COURSE (DSC)
and
SKILL ENHANCEMENT COURSE (SEC)
UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)



Effect from 2020-21

III - Semester: B.Sc Degree programme in Forensic Science and Criminology

DSC – CRIMINAL JUSTICE AND POLICE SCIENCE: FSC-Th: C

Marks: IA – 20, Main exam - 80 Total Marks - 100
Exam Duration: 03 Hrs - Teaching Hours - 04 Hrs/week Credits – 04
Total number of teaching hours - 60

Objectives: This paper is designed with objectives of acquainting the students with:

d. The Law and principles of Criminal Law.
e. Various offences, the punishment and procedure for the offences as mentioned in the Indian Penal Code. Criminal Procedure and Evidence Act
f. The Police as an important agency of the Criminal Justice System.
d. The powers and duties of Police
e. The procedure of investigation and Preventive measures

UNIT I: INDRODUCTION — 12 hours

g) Judicial system in India, Importance and reforms in the justice administration.
h) Meaning, objective and wings of Criminal justice system.
i) Evolution of Police Administration.
j) Prosecution organization and its relation with police.
k) Organizational set up of police in State, Central and special units of police
l) Salient features of Karnataka Police Act and Police Manual.

UNIT II: CRIMINAL CODES — 12 hours

g) **General explanation** - man, woman, movable property, dishonesty, fraudulently counterfeit, document, offence, life, death and good faith.
h) **General exception** – Sec 76,82,83,84,85,87,96,97,103,106 of IPC.
i) **Indian Penal Code**
   iii. Offences against persons – Sec 121A, 299, 300, 302, 304A, 304B, 307, 309, 319, 320, 324, 326, 351, 354, 359, 362. Sec 375 & 377 and their amendments.
   iv. Offences against property Sec – 378, 383, 390, 391, 405, 415, 420, 441, 463, 489A, 497, 499, 503, 511.
j) **Criminal Procedure Code** –Functionaries under the code: police, prosecutors, defense counsel and prison authorities. Sec 61-69 summons, Sec 70-72 warrant, Sec 154 FIR, Sec 173 Charge sheet , Expert Witness (291 -93) and Sec 437 provision of bail.
k) **Indian Evidence Act** – Evidence and rules of relevancy in brief, Expert witness and Cross examination and re-examination of witnesses. Sect 32, 45, 46, 47, 57, 58, 60, 73, 135, 136, 137, 138, 141.
l) **Constitution of India** –Preamble and Fundamental Rights Article 20, 21, 22.

UNIT III: SOCIAL LEGISLATIONS — 12 hours

d) Social legislation – its historical perspective
e) Narcotic Drugs and Psychotropic Substances Act, Prevention of Food

IV - Semester: B.Sc Degree programme in Forensic Science and Criminology

DSC – DECTYLOSCOPY AND DNA FINGER PRINTING: FSC-Th: D

Marks: IA – 20, Main exam - 80 Total Marks - 100
Exam Duration: 03 Hrs - Teaching Hours - 04 Hrs/week Credits – 04
Total number of teaching hours - 60

Objectives: This paper is designed with objectives of acquainting the students with:

a. ***The history and fundamental principles of fingerprinting.***
b. ***Application of Fingerprints as the most infallible means of identification.***
c. ***The physical and chemical techniques of developing fingerprints on crime scene evidence.***
d. ***The significance of foot and tyre prints.***
e. ***The forensic significance of DNA typing.***
f. ***The importance of short tandem repeats and restriction fragment length polymorphism in DNA technique.***

UNIT I: BASICS OF FINGERPRINTING — 12 hours

a. History and development of finger prints as an identification science
b. Central and State finger print bureau.
c. Formation of ridges.
d. Fundamental principles and characteristics of fingerprinting.

UNIT II: COMPARISON AND CLASSIFICATIONS — 12 hours

a. Recording of finger prints, Taking of finger prints from living and dead persons (Plain and rolled prints).
b. Identification and Comparison of finger prints.
c. Henry's primary and secondary classification; Battley's single digit classification.
d. Significance of poroscopy and edgeoscopy.

UNIT III: LATENT FINGERPRINTS — 12 hours

a. Developing Latent fingerprints detection by physical techniques - Grey, Graphite and Anthracene powder.
b. Mechanism of detection of fingerprints by different Chemical techniques: Ninhydrin and its analogue silver nitrate, fuming method - Iodine, Vacuum Metal Deposition (VMD) Method.
c. Automated Fingerprint Identification System (AFIS) and application of light sources in fingerprint detection.
d. Preserving and lifting of fingerprints, Photography of fingerprints, digital transmission, application of laser technologies, Biological methods of development of latent prints on skin.

Karnatak University, Dharwad

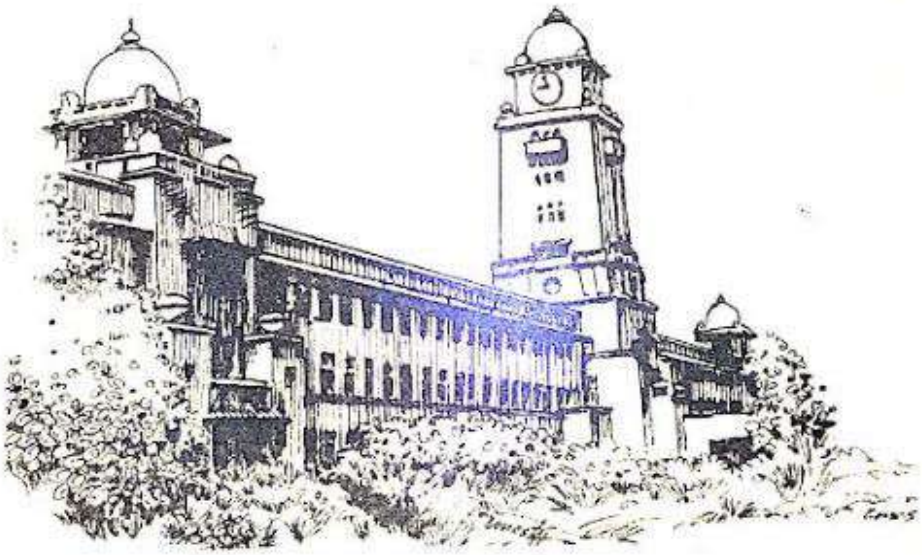
NAAC Accredited with "A" Grade-2014

B.Sc. Programme

Syllabus for

ELECTRONICS (Optional)

AS DISCIPLINE SPECIFIC COURSE (DSC),
DISCIPLINE SPECIFIC ELECTIVE (DSE) and
SKILL ENHANCEMENT COURSE (SEC)
UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)



Effect from 2020-2021

Discipline Specific Course(DSC), Discipline Specific Elective and Skill Enhancement Course Topics under CBCS in Electronics

Sem	Type	Course
1	DSC ELET:101	BASIC ELECTRONICS
	DSC ELEP:102	PRACTICALS 1
2	DSC ELET:201	LINEAR AND DIGITAL INTEGRATED CIRCUITS
	DSC ELEP:202	PRACTICALS 2
3	DSC ELET:301	COMMUNICATION ELECTRONICS
	DSC ELEP:302	PRACTICALS 3
4	DSC ELET:401	PHOTONICS AND MICROCONTROLLER
	DSC ELEP:402	PRACTICALS 4
5	DSE ELET:501A **OR** ELET:501B	C-Programming, VLSI and Embeded System (Elective) **OR** Sensors,C-Programming and Embedded System (Elective2)
	DSE ELEP:502A **OR** ELEP:502B	PRACTICALS 5
	SEC-1 ELEP:503	EMBEDDED SYSTEMS EXPERIMENTS USING MICROCONTROLLER/ARDUINO PRACTICALS 6
	SEC-2 ELEP:504	PCB DESIGN AND SIMULATION EXPERIMENTS PRACTICALS 7
6	DSE ELET:601A **OR** ELET:601B	Power Electronics and DSP (Elective 1) OR Power Electronics VLSI,VHDL and Python (Elective 2)
	DSE ELEP:602A **OR**ELEP:602B	PRACTICALS 8
	SEC-1 ELEP:603	PC HARDWARE AND BASIC NETWORKING CONCEPTS PRACTICALS 9
	SEC-2 ELEP:604	PROJECT WORK PRACTICALS 10

KARNATAK UNIVERSITY, DHARWAD

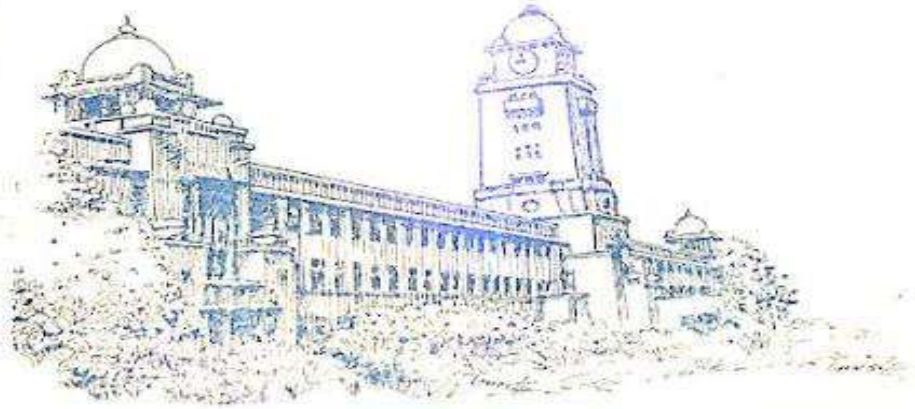
'A' Grade
NAAC Accredited 2014

SYLLABUS FOR

B.Sc. GEOLOGY (GENERAL)

VI- SEMESTER COURSE

UNDER CHOICE BASED CREDIT STSTEM (CBCS)



2020-21 Onwards

W.E 115/450 Copies 2020

Karnatak University, Dharwad
CBCS syllabus for Under Graduate Programme in Geology (opt.) as **DISCIPLINE SPECIFIC COURSE (DSC)**
Effective from 2020-21

Semester	Course Code	Name Of The Course	Theory/ Practical	Instruction Hrs/Week	Total Period	Duration Of Exam	Marks Obtained		Total Marks	Credits
							Internal (CA)	External (ESE)		
I	(DSC) GLG-SCT-(A)-116	General Geology and Structural Geology	Theory	04	60	03 Hrs	20	80	100	04
	(DSC) GLG-SCP-(A)-116	General Geology and Structural Geology	Practical	04	52	03 Hrs	10	40	50	02
II	(DSC) GLG-SCT-(B)-226	Crystallography and Mineralogy	Theory	04	60	03 Hrs	20	80	100	04
	(DSC) GLG-SCP-(B)-226	Crystallography and Mineralogy	Practical	04	52	03 Hrs	10	40	50	02
III	(DSC) GLG-SCT-(C)-336	Petrology	Theory	04	60	03 Hrs	20	80	100	04
	(DSC) GLG-SCP-(C)-336	Petrology	Practical	04	52	03 Hrs	10	40	50	02
IV	(DSC) GLG-SCT-(D)-446	Stratigraphy and Palaeontology	Theory	04	60	03 Hrs	20	80	100	04
	(DSC) GLG-SCP-(D)-446	Stratigraphy and Palaeontology	Practical	04	52	03 Hrs	10	40	50	02
V	(DSE) *GLG-DET-516-(E)-P-I/P-II	P-I-Economic Geology and Hydrogeology P-II- Geology of Karnataka	Theory	04 / 04	60 / 60	03 Hrs	20	80	100	04
	(DSE) GLG-DEP-516-(E)-P-I/P-II	P-I-Economic Geology and Hydrogeology P-II	Practical	04	52	03 Hrs	10	40	50	02
VI	(DSE) *GLG-DET-626-(F)P-I / P-II	P-I-Elements of Applied Geology P-II- Dissertation/ Project Work	Theory/ Self Study	04 / 04	60 / 60	03 Hrs	20	80	100	04
	(DSE) GLG-DEP-626-(F)P-I/P-II	P-I-Elements of Applied Geology P-II- Dissertation/ Project Work	Practical	04	54	03 Hrs	10	40	50	02
Total	*Candidate shall choose either Paper-I or P-II but not both in DSE Theory			48 Hrs	672/120		180	720	900	36

Karnatak University, Dharwad

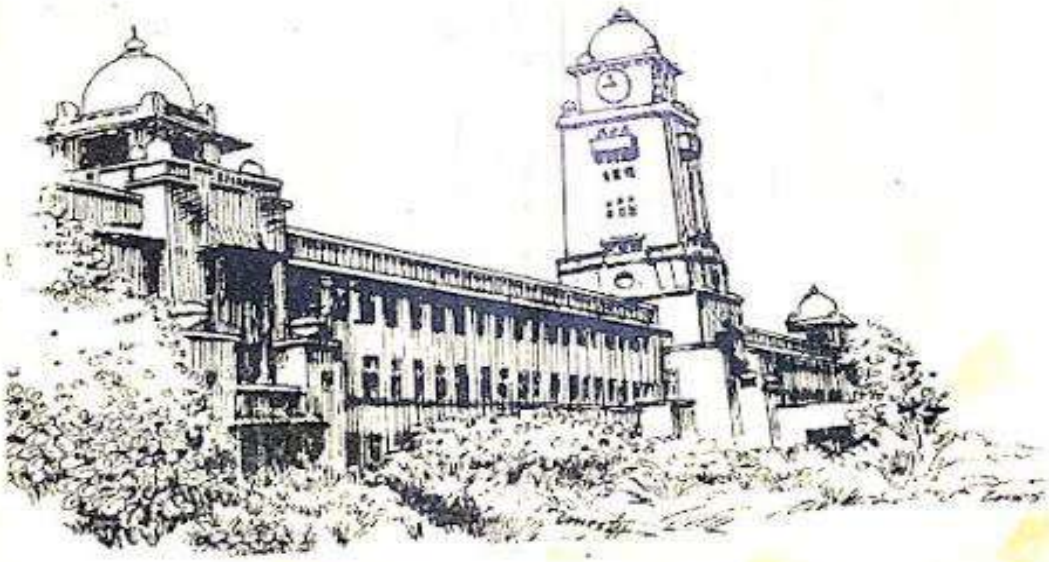
NAAC Accredited with "A" Grade-2014

B.A. Programme

Syllabus for

GEOGRAPHY (OPTIONAL)

AS DISCIPLINE SPECIFIC COURSE (DSC)
and
SKILL ENHANCEMENT COURSE (SEC)
UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)



Effect from 2020-2021

Karnatak University, Dharwad

CBCS syllabus for Under Graduate Programme in Geography (opt.) as

DISCIPLINE SPECIFIC COURSE (DSC)

Effective from 2020-21

Sem Ester	Theory/ Practical	Subject Code	Instruction hour per week	Total Syllabus Hrs/ Sem	Duration of Exam.	Internal Assessment Marks	Sem final Exam. Marks	Total Marks	Credits
I	Theory	DSC (GYT: A)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (GYPr: A)	04 hrs	52	03 hrs	10	40	50	02
II	Theory	DSC (GYT: B)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (GYPr: B)	04 hrs	52	03 hrs	10	40	50	02
III	Theory	DSC (GYT: C)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (GYPr: C)	04 hrs	52	03 hrs	10	40	50	02
IV	Theory	DSC (GYT: D)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (GYPr: D)	04 hrs	52	03 hrs	10	40	50	02
V	*Theory P-I /P- II	DSE (GYT: E-I GYT: E-II)	04 hrs / 04 hrs	60/60	03 hrs	20	80	100	04
	Practical	DSE (GYPr: E)	04 hrs	52	03 hrs	10	40	50	02
VI	*Theory P-I /P- II	DSE (GYT: F-I) GYT: F-II)	04 hrs / 04 hrs	60/60	03 hrs	20	80	100	04
	Practical	DSE (GYPr: F)	04 hrs	52	03 hrs	10	40	50	02
Total			48 hrs	672/120		180	720	900	36

Particulars of the Semester wise Theory and Practical Papers and Paper Code of B.A. Course.

Semester	Paper Code	Title of the Paper	Course
I	GY T A	Physical Geography	DSC
	GY Pr. A	Scale and Maps	DSC
II	GY T B	Human Geography	DSC
	GY Pr. B	Interpretation of Indian Daily Weather Maps	DSC
III	GY T C	Regional Geography of Karnataka	DSC
	GY Pr. C	Interpretation of Topographical Maps	DSC
IV	GY T D	Environmental Geography	DSC
	GY Pr. D	Map Projections	DSC
V	GY T E-I	Regional Geography of India	DSE
	GY T E-II	Geography of Settlements	DSE
	GY Pr. E	Basic Statistics	DSE
	GY T E-III	Elements of Physical Geography	GE-I
	GY T E –IV	Regional Planning& Development	SEC-I
VI	GY T F-I	Economic Geography of the World	DSE
	GY T F-II	Population Geography	DSE
	GY Pr. F-I	Field Based Project report	DSE
	GY T F-III	Physical Geography of India	GE-II
	GY T F –IV	Basics of Remote Sensing	SEC-II

Note: All the DSC Courses are compulsory. Each DSE shall have at least two papers and student shall choose any one paper from each DSE and Practical is compulsory.
SEC Theory/Practical is compulsory of these two semesters.
The Practical batch is to be in accordance with University Norms.

Karnatak University, Dharwad

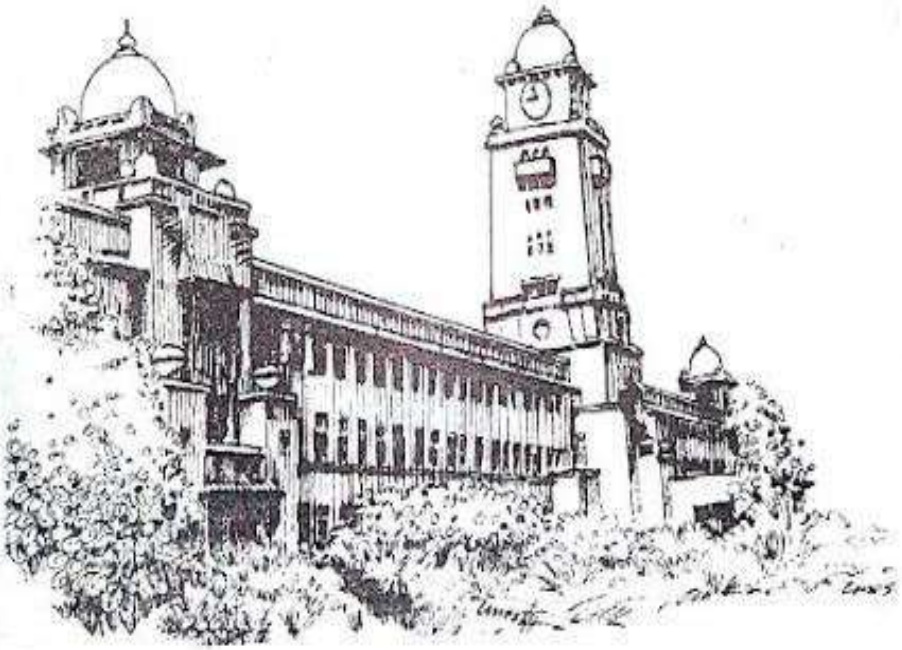
NAAC Accredited with "A" Grade-2014

B.Sc. Programme

Syllabus for

GENETICS (OPT.)

AS DISCIPLINE SPECIFIC COURSE (DSC)
and
SKILL ENHANCEMENT COURSE (SEC)
UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)



Effect from 2020-2021

Discipline Specific Course (DSC)
Discipline Specific Elective (DSE)
Skill Enhancement Course (SEC)

Topics under CBCS in GENETICS.

Sem	Paper Code	Course
1	DSC GENT:101	CYTOGENETICS
	DSC GENP:102	Practical 1
2	DSC GENT:201	MENDELIAN GENETICS
	DSC GENP:202	Practical 2
3	DSC GENT:301	MOLECULAR BIOLOGY
	DSC GENP:302	Practical 3
4	DSC GENT:401	MOLECULAR GENETICS
	DSC GENP:402	Practical 4
5	DSE GENT:501A OR GENT:501B	GENERAL GENETICS OR BIOSTATISTICS AND BIOINFORMATICS
	DSE GENP:502 (Based on 501A+501B)	Practical 5 (Common for both DSE GENT: 501A and 501B)
	SEC GENP:503	Practical 6 CELL BIOLOGY TECHNIQUES
6	DSE GENT:601A OR GENT:601B	ADVANCED GENETICS OR GENETIC ENGINEERING
	DSE GENP:602 (Based on 601A+601B)	Practical 7 (Common for both DSE GENT: 601A and 601B)
	SEC GENP:603	Practical 8 APPLIED GENETICS

Karnatak University, Dharwad

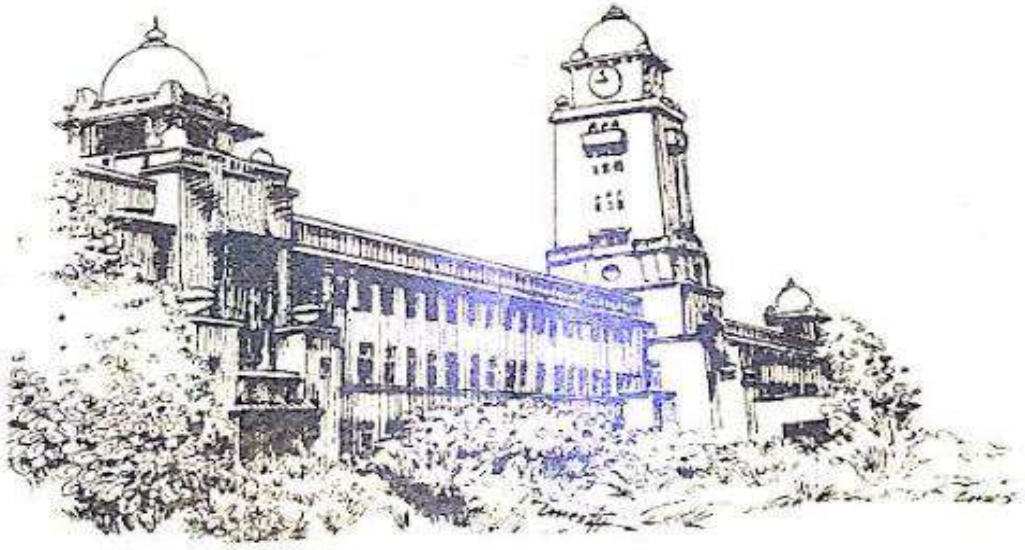
NAAC Accredited with "A" Grade-2014

B.Sc. PROGRAMME (General)

UNDER

CHOICE BASED CREDIT SYSTEM (CBCS)

Syllabus for the Subject
Industrial Fish and Fisheries (IF)



With Effect from 2020-21

Karnatak University, Dharwad

B. Sc. (General) CBCS syllabus for Under Graduate Programme

Subject :- *Industrial Fish and Fisheries*

Effective from 2020-21

Semester	Theory/ Practical	Subject Code	Instruct hrs/wk	Syllabus hrs/ Sem	Duration of Exam.	Internal Assessment Marks	Sem final Exam. Marks	Total Marks	Credits
I	Theory	DSC (IF-T:h A)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (IF-Pr: A)	04 hrs	52	03 hrs	10	40	50	02
II	Theory	DSC (IF-Th: B)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (IF Pr: B)	04 hrs	52	03 hrs	10	40	50	02
III	Theory	DSC (IF-Th: C)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (IF -Pr: C)	04 hrs	52	03 hrs	10	40	50	02
IV	Theory	DSC (IF -Th: D)	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (IF-Pr: D)	04 hrs	52	03 hrs	10	40	50	02
V	*Theory P-I /P- II	DSE (IF-Th P-I E IF-Th: P-II E)	04 hrs / 04 hrs	60/60	03 hrs	20	80	100	04
	Practical	DSE (IF-Pr: E)	04 hrs	52	03 hrs	10	40	50	02
VI	*Theory P-I /P- II	DSE (IF-Th P-I F IF-Th: P-II F)	04 hrs / 04 hrs	60/60	03 hrs	20	80	100	04
	Practical	DSE (IF-Pr: F)	04 hrs	52	03 hrs	10	40	50	02
Total						180	720	900	36

*Candidate shall choose either paper –I or P-II but not both in DSE theory.

SKILL ENHANCEMENT COURSE (SEC) for *Industrial Fish and Fisheries* **opted as DSC**

Semester	Theory	Subject Code	Instruction hour per week	Total Syllabus Hrs/ Sem	Duration of Exam.	Internal Assessment Marks	Sem final Exam. Marks	Total Marks	Credits
V	Theory	(SEC-IF- 1E)	02 hrs	30	1.5 hrs	10	40	50	02
V	Theory	(SEC-IF- 2E)	02 hrs	30	1.5 hrs	10	40	50	02
VI	Theory	(SEC-IF- 1F)	02 hrs	30	1.5 hrs	10	40	50	02
VI	Theory	(SEC-IF- 2E)	02 hrs	30	1.5 hrs	10	40	50	02
Total			08 hrs	120		40	160	200	08

B.Sc. Semester - III

DSC -*INDUSTRIAL FISH AND FISHERIES*: IF-Th: C

Credits: I. Theory : 04 Theory class 4hrs /wk. Total theory: 60 Lectures
80 marks for Sem end Examination (3 hrs) & 20 marks IA

II. Practical : 02 Practical: 4 hrs./wk. Total Practical: 52 hrs.
40 marks for Sem end Examination (3 hrs) & 10 marks IA

Total Credits : 06 Total Theory marks 100 and Practical marks 50

Syllabus:

Capture Fisheries

CAPTURE FISHERIES; Importance of capture fisheries of the World. Present yield and estimate of potential fisheries. International fisheries commissions. The Inland capture fisheries resource of world and India. Riverine fisheries. Fisheries of major and minor carps, catfishes and other groups. Problems and managements. **10 hrs**

Coldwater fisheries resources; Fisheries of trout, Mahaseer and other coldwater fish species. Development and management. **10 hrs**

Lacoustrine fisheries sources, potentials and problems of development and management. **5 hrs**

Estuarine fisheries resource; fishes of clupeoids, prawns, molluscs, mullets and other important groups. Fisheries of brackishwater lakes and backwaters. **10 hrs**

Capture fishers fisheries of marine; Marine fisheries resources of India. Pelagic fisheries; Fisheries of Oil sardines, Lesser sardines, Anchovies, Clupeoids, Mackerels, Ribbon fisheries, Tunas, Seer fish, Carangids and Cephalopods. **10 hrs**

Mid water and demersal fisheries; Fisheries of elasmobranches, Bombay duck, Catfishes, Silver bellies, Sciaenids, Pomfrets, Threadfins, Perches, Flatfish, Prawns, Lobsters, Crabs, Mussels, Oysters and Clams and their economic importance.Fishing regulatory and Laws. **15 hrs**

INDUSTRIAL FISH AND FISHERIES LAB: IF-Pr: C

Syllabus and distribution of marks in the practical Examination

III SEMESTER PRACTICAL **4 hrs/ week**

1. Freshwater fish gears and crafts. (03 Practicals)
2. Marine water gears and crafts. (03 Practicals)
3. Length and weight relationship in fishes.(03 Practicals)
4. Population structure and Length frequency data in fishes. (02 Practicals)
5. Compulsory Field Visit to marine fish landing centre, beach etc., (Carries 10 marks for Field Report)

SCEME OF PRACTICAL EXAMINATION

1.	Length and weight relationship in fishes	10 marks
2.	Population structure and frequency data	05 marks
3.	Identification of gears and crafts 5X2	10 marks
4.	Field visit Report and Viva (7+3) (Compulsory study tour visit)	10 marks
5.	Journals	05 marks
	Total	**40 marks**

B.Sc. Semester - IV

DSC- *INDUSTRIAL FISH AND FISHERIES*: IF-Th: D

Credits: I. Theory	**: 04**	**Theory class 4hrs /wk. Total theory: 60 Lectures**
		80 marks for Sem end Examination(3 hrs) & 20 marks IA
II. Practical	**: 02**	**Practical: 4 hrs./wk. Total Practical: 52 hrs.**
		40 marks for Sem end Examination(3 hrs) & 10 marks IA
Total Credits	**: 06**	**Total Theory marks 100 and Practical marks 50**

Syllabus

FISHERIES TECHNOLOGY:

Principles and importance of fish preservation – Sun drying, Salt curing, Pickling, Smoking, Chilling, Frying and Canning.

Processing and preservation of fish products and byproducts. Paste products, Minced meat, Fish Protein Concentrate, Fish meal, Shark liver oil, Fish body oil, Liquid fish (fish ensilage), Shark fins and fin rays, Fish skin leather, Ambergris, Fish cake, Fish salads, Fish wafers, Fish soup powder, Fish hydrolysate, Fish Sauce, Fish glue, Isinglass, Chitin and Chitosan, Pearl essence, bêche-de-mer. **25 hrs**

Sea weeds – Edible, Industrial and Pharmaceutical products and their uses. **05 hrs**

Handling, preservation and transportation of fresh fish, freezing preservation of fish, modern techniques employed in fish preservations **05 hrs**

Sanitation in processing and quality control of fresh and processed fish and fisheries products. **05 hrs**

Fish catching methods; Indigenous fishing gears of India. Recent development in fishing gears in India. Indigenous fishing crafts of India. Mechanization of Indian fishing crafts, fishing vessels. Electronics in fishing industry. Sea fishing methods. **10 hrs**

Pearl producing molluscans; Freshwater and marine pearl producing molluscans. Pearl formation. Pearl production states in India. **05 hrs**

Fisherman Co-operative Societies; Roll of co-operative in fishery economy. Organization of fisherman Co-operative society. Roll of Co-operative Societies in fish production and marketing. Fisheries extension. **05 hrs**

INDUSTRIAL FISH AND FISHERIES LAB: IF-Pr: D

Syllabus and distribution of marks in the practical Examination

IV SEMESTER PRACTICALS **4Hrs/week**

1. Study of By-products and their economic importance.
(Fish wafers, Soup powder, Fish Ensilage, Isinglass, fish pickle, Shark fin and fin rays, fish body oil, Chitin and Chitosan, Fish sauce, Fish cake, FPC) etc., (07 Practicals)
2. Preparation of Chitosan from prawn shells
3. Extraction of fish body oil and liver oil (02 Practicals)
4. Fish Food formulation and pellet preparation
5. Compulsory visit to cold storages, Fisheries Institutes and processing plants and fish landing centre and submission of study tour reports.

Karnatak University, Dharwad

NAAC Accredited with "A" Grade-2014

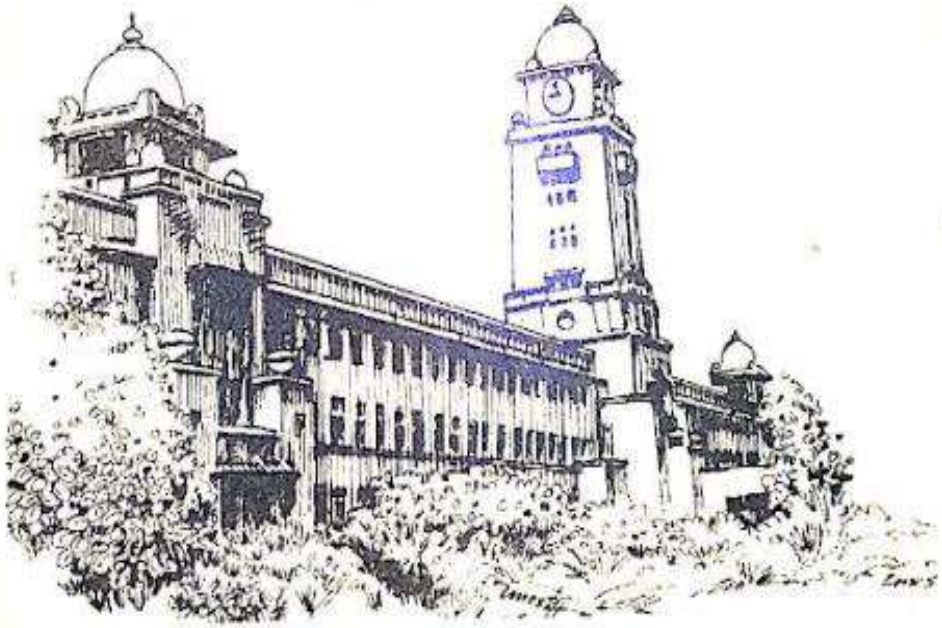
B.Sc. Degree Course

Proposed Syllabus for

MATHEMATICS

UNDER

CHOICE BASED CREDIT SYSTEM (CBCS)



With effect from 2020-21 and onwards

Karnatak University, Dharwad

NAAC Accredited with "A" Grade-2014

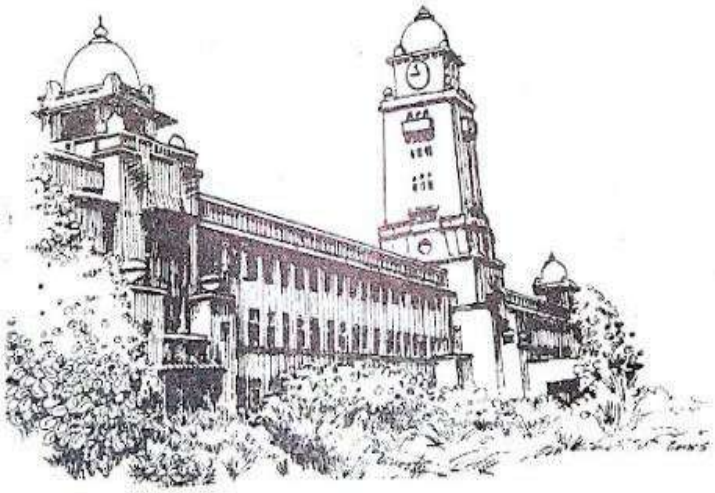
Syllabus and Structure

For

B.Sc. MICROBIOLOGY

UNDER

CHOICE BASED CREDIT SYSTEM (CBCS)



With Effect from 2020-2021 onwards

B.Sc. Microbiology

Proposed Semester-wise distribution of the course structure

Effective from 2020-21

Sl. No.	Code No.	Type of the Paper	Title of the Paper	Credit Pattern in L:T:P	Credit Value	Hours /Week L:T:P
Semester – I						
1	MB-1.1	DSC	Microbiology and Microbiological Techniques	4:0:2	6	4:0:4
Semester – II						
1	MB-2.1	DSC	Microbial Physiology and Genetics	4:0:2	6	4:0:4
Semester – III						
1	MB-3.1	DSC	Molecular Biology and Genetic Engineering	4:0:2	6	4:0:4
Semester – IV						
1	MB-4.1	DSC	Environmental and Agricultural Microbiology	4:0:2	6	4:0:4
Semester – V						
			Any one of following			
1	MB-5.1	DSE 1.1	Food and Industrial Microbiology	4:0:2	6	4:0:4
2	MB-5.2	DSE 1.2	Microbial Biotechnology and Bioinformatics	4:0:2	6	4:0:4
			Any one of following			
1	SEC-1.1	Discipline specialization	Microbial Quality Control in Food and Industries	2:0:0	2	2:0:0
2	SEC-1.2	Discipline specialization	Microbiological analysis of air and water	2:0:0	2	2:0:0
Semester – VI						
			Any one of following			
1	MB-6.1	DSE 1.1	Immunology and Medical Microbiology	4:0:2	6	4:0:4
2	MB-6.2	DSE 1.2	Advances in Microbiology and Biostatistics	4:0:2	6	4:0:4
			Any one of following			
1	SEC-2.1	Discipline specialization	Microbial diagnosis in Health Clinics	2:0:0	2	2:0:0
2	SEC-2.2	Discipline specialization	Microbial Infections and Treatment	2:0:0	2	2:0:0

- DISCIPLINE SPECIFIC COURSE- DSC
- DISCIPLINE SPECIFIC ELECTIVE-DSE
- SKILL ENHANCEMENT COURSE –SEC
- L –Lecture, T-Tutorial, P-Practical

Discipline Specific Course(DSC), Discipline Specific Elective and Skill Enhancement Course Topics under CBCS in Physics.

Sem	Type	Course
1	DSC PHYT:101	**Mechanics and properties of Matter** Newtonian Mechanics, Classical Mechanics, Special Theory of Relativity, Gravitation and Elasticity
	DSC PHYP:102	**Practicals 1**
2	DSC PHYT:201	**Thermal Physics and Fluid Mechanics** Thermodynamics, Kinetic theory of gases, Statistical Physics, Radiation, Astrophysics, Surface Tension and Viscosity
	DSC PHYP:202	**Practicals 2**
3	DSC PHYT:301	**Electrostatics and Electricity** Dielectrics, Transients, Alternating Current, Electrical instruments and measurements, Electromagnetic induction and Thermoelectricity
	DSC PHYP:302	**Practicals 3**
4	DSC PHYT:401	**Electromagnetic theory and Optics** Electromagnetic theory, Geometrical optics, Interference, Diffraction and Polarisation
	DSC PHYP:402	Practicals 4
5	DSE PHYT:501A **OR** PHYT:501B	**Modern Physics-I** Quantum Mechanics, Spectroscopy and Nuclear Physics **OR** Modern Physics-II
	DSE PHYP:502	Practicals 5
	SEC-1E PHYP:503	**Basic instrumentation skills-I** Practicals 6
	SEC-2E PHYP:504	**Basic instrumentation skills-II** Practicals7
6	DSE PHYT:601A **OR** PHYT:601B	**Solid State Physics and Electronics-I** Crystal structure, Specific heats, Semiconductors, Magnetic Materials, Superconductivity, BJT, FET, IC's, Digital electronics and Communication. **OR** **Solid State Physics and Electronics-II**
	DSE PHYP:602	**Practicals8**
	SEC-1F PHYP:603	**Applied Physics-I** **Practicals9**
	SEC-2F PHYP:604	**Applied Physics-II** **Practicals10**

Karnatak University, Dharwad

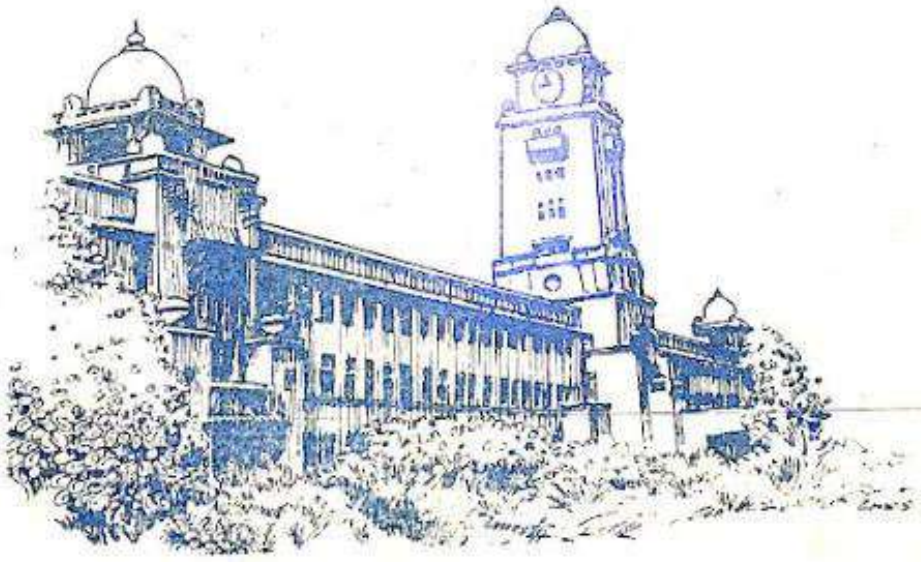
NAAC Accredited with "A" Grade-2014

B.Sc. Programme

Syllabus for

STATISTICS (OPTIONAL)

AS DISCIPLINE SPECIFIC COURSE (DSC)
DISCIPLINE SPECIFIC ELECTIVE (GE) and
SKILL ENHANCEMENT COURSE (SEC)
UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)



Effect from 2020-2021

Karnatak University, Dharwad

CBCS syllabus for Under Graduate Programme in Statistics (opt.) as **DISCIPLINE SPECIFIC COURSE (DSC)**

Effective from 2020-21

Part A Structure: DSC

Semester	Theory/ Practical	Subject Code	Title of the Paper	Instruction hour per week	Total Syllabus Hrs/ Sem	Duration of Exam.	Internal Assessment Marks	Sem final Exam. Marks	Total Marks	Credits
I	Theory	DSC (STT: A)	Descriptive Statistics and Elements of Probability	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (STPr: A)	Practicals based on theory using Excel and R-programming	04 hrs	52	03 hrs	10	40	50	02
II	Theory	DSC (STT: B)	Mathematical Expectation, Theoretical Distributions and Order Statistics	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (STPr: B)	Practicals based on theory using R-programming	04 hrs	52	03 hrs	10	40	50	02
III	Theory	DSC (STT: C)	Theory of Sampling and Estimation	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (STPr: C)	Practicals based on theory using R-programming	04 hrs	52	03 hrs	10	40	50	02
IV	Theory	DSC (STT: D)	Exact Sampling Distributions and Testing of Statistical Hypothesis	04 hrs	60	03 hrs	20	80	100	04
	Practical	DSC (STPr: D)	Practicals based on theory using R-programming	04 hrs	52	03 hrs	10	40	50	02
Total of DSC				32 hrs	448		120	480	600	24

KARNATAK UNIVERSITY, DHARWAD

'A' Grade
NAAC Accredited 2014

CBCS SYLLABUS

For

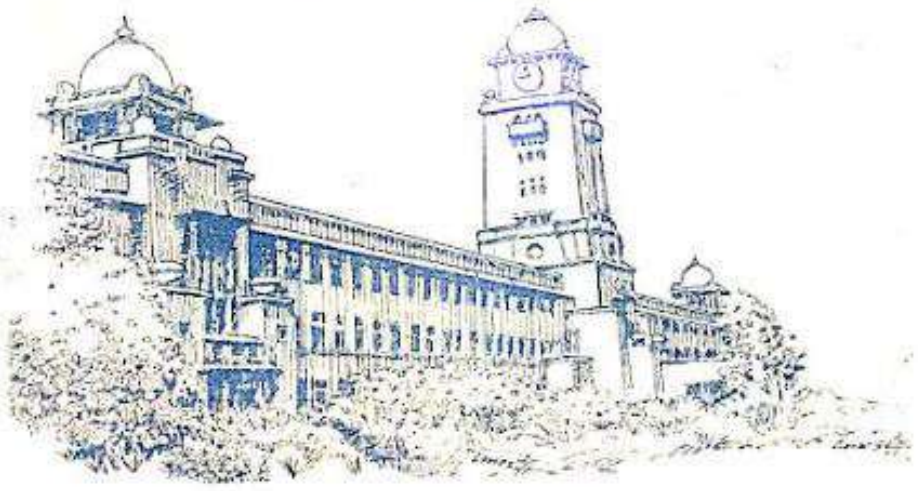
BACHELOR OF SCIENCE

ZOOLOGY

(I to IV Semesters)

FROM

2020-21 & ONWARDS



III SEMESTER

PAPER DSCZOOT 3.1: HISTOLOGY, EVOLUTION, PALEONTOLOGY AND BIOSTATISTICS

Credits:04 **Total Teaching Hours: 60 hrs**

I HISTOLOGY — 20 hrs

Study of histological structure and functions of the following mammalian organs

a. Tongue
b. Stomach
c. Intestine
d. Testis
e. Ovary
f. Liver
g. Islets of Langerhans
h. Thyroid
i. Kidney
j. Adrenal

II EVOLUTION — 18 hrs

Origin of earth, origin of life, theories of organic evolution. Lamarckism, *Darwin Wallace* Theory of natural selection Evidences in favor of evolution.

Neo-Darwinism (synthetic theory of evolution, gene mutation, gene flow, genetic drift, *Hardy Weinberg* equilibrium) concept of species Speciation, allopatric and sympatric species

III PALEONTOLOGY — 15 hrs

Geological time scales, fossils and fossilization. Radiometric dating – detection of age of fossils. Indian fossil sites. Mesozoic reptiles. Connecting links, living fossils, origin and evolution of man. Evolution of horse.

IV BIOSTATISTICS — 07 hrs

Use of statistics in life sciences, data collection, observations and variables, sampling and sampling methods, representation, tabular and graphical representations; frequency tables, line graphs, bar graphs, histograms, frequency polygon and curve and pie charts; measure of central tendency; mean; median and mode. Measures of dispersion; range, standard deviation; Standard error

IV SEMESTER
PAPER DSCZOOT 4.1: BIOCHEMISTRY AND PHYSIOLOGY

Credits: 04 **Total Teaching Hours: 60 hrs**

I CARBOHYDRATES, PROTEINS and LIPIDS 09 hrs

Definition, classification and biological significance.

II. ENZYMES 06 hrs

Classification of enzymes – IUB system, mechanism of enzyme action, enzyme substrate complex, specificity of enzymes, reversibility of enzyme action, enzyme inhibitors, a brief account of coenzymes, cofactors and ions, clinical importance of enzymes

III. NUCLEIC ACIDS 03hrs

Nucleotides, nucleosides, nitrogen bases, structure of nucleic acid (DNA & t-RNA).

IV. VITAMINS 04hrs

Fat soluble vitamins (A, D, E and K) water soluble vitamins (B-complex and C) functions and deficiency symptoms

V BIOENERGETICS 04 hrs

Concept of bioenergetics, energy yielding pathways, glycolysis, bioenergetics of glycolysis, the Kreb's cycle, bioenergetics of Kreb's cycle, the electron transportsystem, phosphorylation

VI. DIGESTION 03 hrs

Mechanical digestion, chemical digestion, assimilation and absorption of proteins, carbohydrates and lipids. Hormonal regulation of enzyme secretion

VII. RESPIRATION 03 hrs

External and internal respiration. Respiratory pigments, hemoglobin, hemocyanin and hemerythrin. Physiology of respiration, exchange of gases, transport of oxygen, oxygen dissociation curves, Bohr Effect, transport of carbon dioxide, chloride shift, respiratory quotient

VIII. CIRCULATION 03 hrs

Types of circulation, structure, functions and regulation of human heart, blood pressure, Composition of human blood, Neurogenic and myogenic hearts

IX. NITROGEN EXCRETION 04 hrs

Nitrogen excretion in aquatic terrestrial and aerial animals; ammonotelism, ureotelism and uricotelism with examples; ornithine cycle, physiology of urine formation in man

X. MUSCLE CONTRACTION 05 hrs

Principal types of muscles, ultra-structure of striated muscles, role of myosin, actin, tropomyosin, troponin and actinin; Mechanism of muscle contraction and relaxation, the sliding filament theory. Chemical changes during muscle contraction, Neuromuscular junction

SEMESTER -III

Course	Paper Code	Paper Title Theory/Practical	Credits	No. of Hrs/ Week Theory/ Practical	Total Hours	Duration of Exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks for Final Exam Theory/ Practical	Total Marks
AECC	BCA-3.1	English – 3	3	3	45	3	20	80	100
AECC	BCA-3.2	MIL – 3	3	3	45	3	20	80	100
DSC	BCA-3.3	Data Structures using C	4 + 0	4	48	3	20	80	100
DSC	BCA-3.4	OOP with C++	4 + 0	4	48	3	20	80	100
DSC	BCA-3.5	Introduction to Operating System	3 + 1	4	48	3	20	80	100
DSC	BCA-3.6	Data Communications	3 + 1	4	48	3	20	80	100
DSC	BCA-3.7	Data Structures LAB	2	4	48	3	10	40	50
DSC	BCA-3.8	CPP LAB	2	4	48	3	10	40	50
		Total	26	30			140	560	700

SEMESTER -IV

Course	Paper Code	Paper Title Theory/Practical	Credits	No. of Hrs/ Week Theory/ Practical	Total Hours	Duration of Exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks for Final Exam Theory/ Practical	Total Marks
AECC	BCA-4.1	English - 4	3	3	45	3	20	80	100
AECC	BCA-4.2	MIL – 4	3	3	45	3	20	80	100
DSC	BCA-4.3	Data Base Management System	4 + 0	4	48	3	20	80	100
DSC	BCA-4.4	Programming in JAVA	4 + 0	4	48	3	20	80	100
DSC	BCA-4.5	Software Engineering	3 + 1	4	48	3	20	80	100
DSC	BCA-4.6	System Programming	3 + 1	4	48	3	20	80	100
DSC	BCA-4.7	DBMS LAB	2	4	48	3	10	40	50
DSC	BCA-4.8	JAVA LAB	2	4	48	3	10	40	50
		Total	26	30			140	560	700

Karnatak University, Dharwad

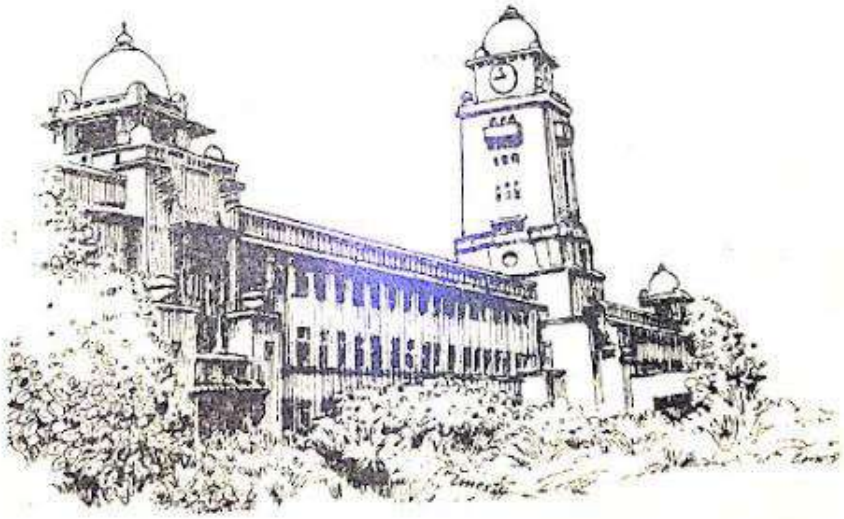
NAAC Accredited with "A" Grade-2014

Under Graduate Programme (General)

Under CBCS

Syllabus for the subject

SANSKRIT



Effect from 2020-21 to 2022-23

KARNATAK UNIVERSITY, DHARWAD

Syllabus for BA/ B.Music/BFA/BSW/BVA/BSc Hotel Management/ MTTM

Fourth Semester SANSKRIT MIL-D under AECC

80 marks paper for 3 hrs duration and 20 marks for Internal Assessment

Teaching: 3 hrs Theory per week

45 hrs Syllabus for 3 Credits

Title: Khandakavyam-II

The course and skill outcome:

1. In this course students will learn about the famous Sanskrit poet "Kalidasa's Meghadoota (Uttaramegha)". Students also learn creative writing skills in "Meghapratisandesha" written by Mandikal Ramashastri, the modern writer.

I. उत्तरमेघ (Verses from 63 to 120) - 40 Marks

II. मेघप्रतिसन्देशः - 30 Marks

III. Grammar (Svara Sandhis and Samasas; Tatpurusha & Dvandva) - 10 Marks

Suggested Reading:

1. मेघदूतम् of Kalidasa,- Prasaranga, Karnatak University, Dharwad.
   मेघदूतम् of Kalidasa- Ed. Dr. C.S. Naikar, Medha Publishers, Dharwad
2. मेघप्रतिसन्देशः of Prof. Mandikal Ramashastri, Ed. Prof. Shailaja Bhat, Ankola.
3. संस्कृतव्याकरणसुरभिः- Dr. V.B. Joshi Mahati Prakashana, Dharwad-08
4. ಸರಳ ಸಂಸ್ಕೃತ ವ್ಯಾಕರಣ – Dr.C.S. Naikar, Medha Publishers, Dharwad-07

Question Paper Pattern:

1. Objective type questions from उत्तरमेघ & मेघप्रतिसन्देशः (Any 10 out of 12) - 10x1=10
2. a. Translation and Explanation of verses from उत्तरमेघ (Any 2 out of 4) - 2x5=10
   b. Translation & Explanation of verses from मेघप्रतिसन्देशः (Any 2 out of 4) - 2x5=10
3. Explain with reference to context
   a. from उत्तरमेघ (Any 2 out of 4) - 2x5=10
   b. from मेघप्रतिसन्देशः (Any 2 out of 4) - 2x5=10
   (Any 2 out of 4)
4. Short notes
   a) From उत्तरमेघ (with internal choice) - 10
   b) From मेघप्रतिसन्देशः (with internal choice)
5. Essay type question
   a) On उत्तरमेघ (with internal choice) - 10
   b) On मेघप्रतिसन्देशः (with internal choice)
6. Grammar - 10

KARNATAK UNIVERSITY, DHARWAD

Syllabus for BA/ B.Music/BFA/BSW/BVA/BSc Hotel Management/ MTTM
Third Semester SANSKRIT MIL-C under AECC

80 marks paper for 3 hrs duration and 20 marks for Internal Assessment
Teaching: 3 hrs Theory per week
45 hrs Syllabus for 3 Credits

Title: Khandakavyam-I

The course and skill outcome:

1. In this course students will learn about the famous Sanskrit poet 'Kalidasa's Meghadoota (Poorvamegha). Students also learn selected Khandakavyas and their authors briefly.

I. पूर्वमेघः (Verses from 1 to 62) - 50 Marks

II. Brief History of Khandakavya - 20 Marks

The following Khandakavyas are to be studies:

1. कालिदासः–मेघदूतम्, ऋतुसंहारम्
2. जयदेवः गीतगोविन्दम्
3. भर्तृहरिः– तिकत्रयम्
4. अमरुकविः–अमरु तिकम्
5. जगन्नाथ पण्डित–भामिनि विलासः
6. नीलकण्ठदीक्षितः– कलिविडम्बनम्

III. Grammar (कृदन्त and तद्धितः) - 10 Marks

Suggested Reading:

1. मेघदूतम् of Kalidasa, 1. Prasaranga, Karnatak University, Dharwad.
2. मेघदूतम् of Kalidasa- Ed. Dr. C.S. Naikar, Medha Publishers, Dharwad
3. संस्कृतव्याकरणसुरभिः– Dr. V.B. Joshi Mahati Prakashana, Dharwad-08
4. ಸರಳ ಸಂಸ್ಕೃತ ವ್ಯಾಕರಣ – Dr.C.S. Naikar, Medha Publishers, Dharwad-07

Question Paper Pattern:

1. Objective type questions from पूर्वमेघ & History of खण्डकव्य (Any 10 out of 12) - 10x1=10
2. Translation and Explanation of verses from पूर्वमेघ (Any 3 out of 5) - 3x7=21
3. Explain the Key-sentences (Any 3 out of 5) - 3x4=12
4. Short notes Questions from पूर्वमेघ (Any 2 out of 4) - 2x6=12
5. a. Questions demanding descriptive answers on History of Kandakavya (Any 1 out of 2) - 8
   b. Shortnotes on History of Khandakavya (Any 1 out of 2) - 7
6. Grammar (Kridants and Taddhitas) - 10

Karnatak University, Dharwad

NAAC Accredited with "A" Grade-2014

B.A. Programme (General)
Under CBCS UG

Syllabus for the subject

MARATHI

Effect from 2020-2021 to 2022-23

KARNATAK UNIVERSITY, DHARWAD

Syllabus for B.Sc./B.C.A

III Sem MIL Marathi under AECC

Title: Short Essays

80 marks paper for 3 hours duration and 20 marks for Internal Assessment.

Teaching Hours: 2 theory + 1 Tutorial (per Week) (3 Credit)

Course and Skill Outcome

1. To introduce ideological writing from Marathi.
2. Its contribution in reformation of society
3. To study and analyze the progressive thoughts based on the text.

I Maruti Chitampalli**'s-Ranavataa** .

Question Paper Pattern

1. Short answer type questions on prescribed text (10 out of 12) - 10x3=30
2. Six descriptive type questions on prescribed text. (6 out of 8) - 6 x5=30
3. Four short note type questions on prescribed text. (4 out of 6) - 4 x5=20

KARNATAK UNIVERSITY, DHARWAD

Syllabus for B.Sc./B.C.A

IV Sem MIL Marathi under AECC

Title: Poetry

80 marks paper for 3 hours duration and 20 marks for Internal Assessment.

Teaching Hours: 2 theory + 1 Tutorial (per Week) (3 Credit)

Course and Skill Outcome

1. To analyze the approaches in rural and feministic writings from Marathi.

I Bahinabai Choudhari's-Bahinabaichi Ganee – Suchitra Prakashan, Mumbai

Question Paper Pattern

1. Short answer type questions on prescribed text - 10x3=30
   (10 out of 12)
2. Six descriptive type questions on prescribed text. - 6 x5=30
   (6 out of 8)
3. Four short note type questions on prescribed text. - 4x5=20
   (4 out of 6)

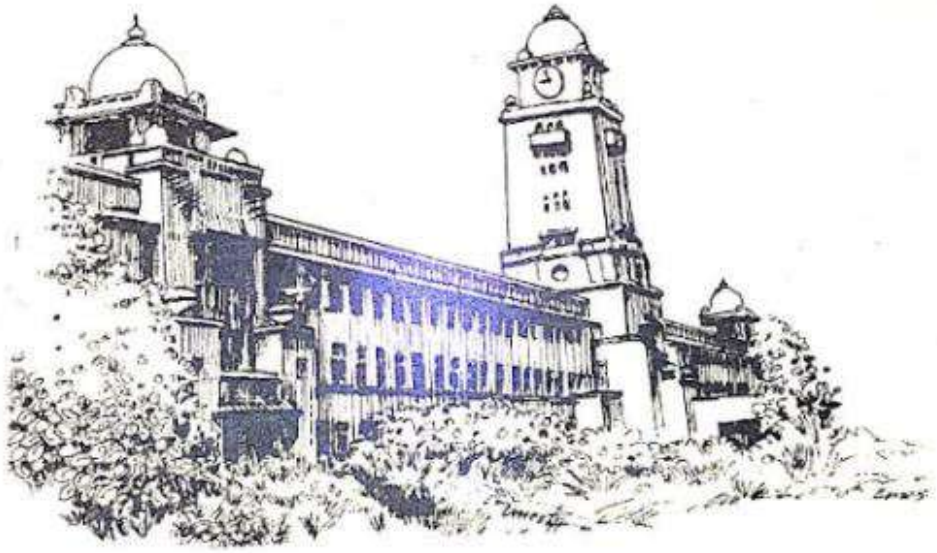
Karnatak University, Dharwad

NAAC Accredited with "A" Grade-2014

Under Graduate Programme (General)
Under CBCS

Syllabus for the subject

FRENCH



Effect from 2020-2021 to 2022-23

KARNATAK UNIVERSITY, DHARWAD

Syllabus for B.A. /B.Sc. /B.P.A/B.Sc. (Fe. Sc) /B.S.W/ B.Com/ B.B.M / B.C.S / B.C.A / B.T.H., B. Music/BFA/BVA Sem IV MEL-4 French under AECC

80 marks paper for 3 hours duration and 20 marks for Internal Assessment
Teaching: 3 Hours per week. Syllabus for 3 Credits

Title of the course: Français Fondamental Niveau-4/French Language Basics-level 4

Course and Skill Outcome:

1. To equip the learners to take on with the *"vie quotidienne'* type conversations and discussions in French language with spontaneity, fluency and rigour.

I. Verbal Tense: Subjunctive, Past Perfect, Gerund, Conditional (Present and Past);
II. Passive forms (in the verbal tenses studied);
III. Reported Speech;
IV. Indefinite pronouns (*personne, rien,aucun/e, chaque*);
V. Vocabulary: Structures of 'jeux de rôles'in various contexts-task based ; *politesse* ;
VI. Structures for indicating a necessity (*Il faut que… / Il est indispensable que….* etc.);
VII. Structures of comparison (*supériorité, infériorité* and *égalité, l'usage de 'autant'*),

Question Paper Pattern	**Marks**
1.50% of the questions are multiple choice of one mark each.	**40x1=40**
2.10 out of 12 questions for 2 mark each.	**10x2=20**
2.2 out of 3 questions for 5 mark each.	**02x5=10**
4. One out of 2 questions for 10 marks.	**01x10=10**

Internal Assessment 20 [08 marks for Dictation, 06 marks for reading & 06 marks for conversation]

KARNATAK UNIVERSITY, DHARWAD

Syllabus for B.A. /B.Sc. /B.P.A/B.Sc. (Fc. Sc) /B.S.W/ B.Com/ B.B.M / B.C.S / B.C.A / B.T.H., B. Music/BFA/BVA Sem III MEL-3 French under AECC

80 marks paper for 3 hours duration and 20 marks for Internal Assessment

Teaching: 3 Hours per week. Syllabus for 3 Credits

Title of the course: Français Fondamental Niveau-3/French Language Basics-level 3

Course and Skill Outcome:

1. To facilitate honing of the skills acquired by the learners and to further enrich their communicability with fluency and confident expression in French.

I. Verbal Tenses: Present, Past compound, Imperfect and (honing of the skills acquired); **II.** Agreement of past participle (*être* and *avoir*); Agreement of past participle (gender and number), Agreement of past participle with direct object;
III. Reported Speech (present tense);
IV. Pronouns: Relative pronouns *(qui, que and à qui)*;
V. Vocabulary: Structures for defining something (*c'est* + infinitive, etc.);
VI. Temporal expressions

Question Paper Pattern for 80 marks	**Marks**
1.50% of the questions are multiple choice of one mark each.	**40x1=40**
2.10 out of 12 questions for 2 mark each.	**10x2=20**
2.2 out of 3 questions for 5 mark each.	**02x5=10**
4. One out of 2 questions for 10 marks.	**01x10=10**

Internal Assessment 20 [08 marks for Dictation, 06 marks for reading & 06 marks for conversation]

NAAC Accredited with "A" Grade-2014

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

ಬಿ.ಎ. ಪದವಿ ತರಗತಿಗಳ CBCS ಪಠ್ಯದ ವಿವರ

೨೦೨೦-೨೧, ೨೨, ೨೩ ಹಾಗೂ ಅನಂತರದ ಅವಧಿಗಾಗಿ

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

ಬಿ.ಎಸ್ಸಿ ಪದವಿ ತರಗತಿಗಳ CBCS ಪಠ್ಯದ ವಿವರ

೨೦೨೦-೨೧.೨೨.೨೩ ಹಾಗೂ ಅನಂತರದ ಅವಧಿಗಾಗಿ.

ಅ.ಸಂ	ಸೆಮಿಸ್ಟರ್	ಪಠ್ಯದ ಹೆಸರು	ಕ್ರೆಡಿಟ್ಸ್	ವಿ.ವಿ ಅಂಕಗಳು	ಆಂತರಿಕ ಅಂಕಗಳು	ಒಟ್ಟು
೦೧	೧ನೇ ಸೆಮಿಸ್ಟರ್	AECC ಅ. ವಿಜ್ಞಾನ ಸಂವಹನ ಬ. ಆಧುನಿಕ ಕನ್ನಡ ಕಾವ್ಯ	೩+೦+೦=೦೩	೪೦ ೪೦	೨೦	೧೦೦
೦೨	೨ನೇ ಸೆಮಿಸ್ಟರ್	AECC. ಅ. ಪರಿಸರ ಸಾಹಿತ್ಯ ಬ. ಕಾದಂಬರಿ	೩+೦+೦=೦೩	೪೦ ೪೦	೨೦	೧೦೦
೦೩	೩ನೇ ಸೆಮಿಸ್ಟರ್	AECC ಅ. ಕೃಷಿ ಸಾಹಿತ್ಯ ಬ. ನಾಟಕ	೩+೦+೦=೦೩	೪೦ ೪೦	೨೦	೧೦೦
೦೪	೪ನೇ ಸೆಮಿಸ್ಟರ್	AECC. ಅ. ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನ ಬ. ಆತ್ಮಕತೆ	೩+೦+೦=೦೩	೪೦ ೪೦	೨೦	೧೦೦

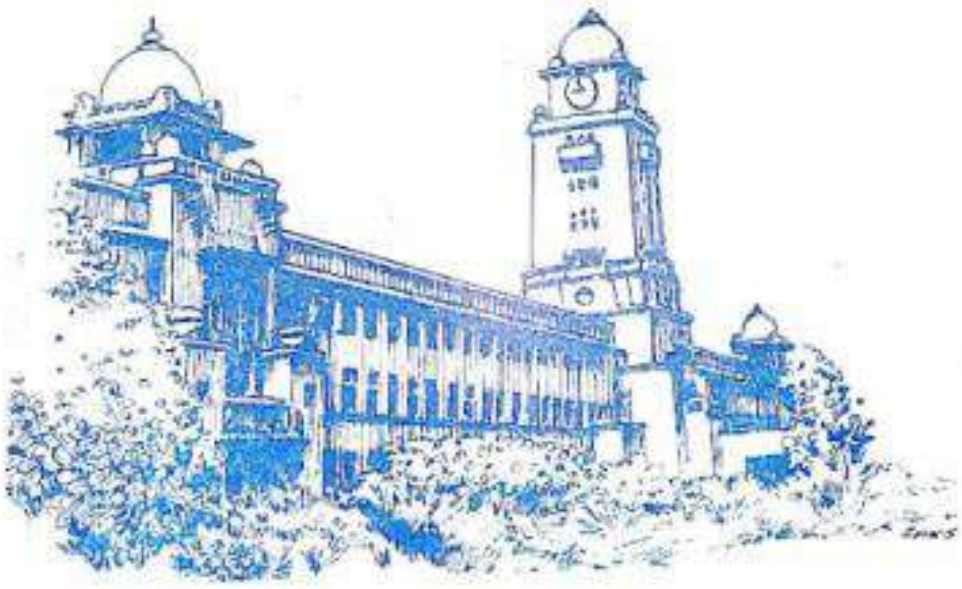
Karnatak University, Dharwad

NAAC Accredited with "A" Grade-2014

Under Graduate Programme (General)
Under CBCS UG

Syllabus for the subject

ENGLISH



Effect from 2020-2021 to 2022-23

Ability Enhancement Compulsory Course (AECC) MIL

B.A / B.Music/ BFA / BVA / BSW / MTTM I to IV Sem

Semester	Subject Code	Teaching	Total Syllabus Hrs/Sem	Duration of Exam	Internal Assessment Marks	Sem End Exam Marks	Total Marks	Credits
I	MIL- 1	3 hrs	45	3 hrs	20	80	100	3
II	MIL - 2	3 hrs	45	3 hrs	20	80	100	3
III	MIL - 3	3 hrs	45	3 hrs	20	80	100	3
IV	MIL - 4	3 hrs	45	3 hrs	20	80	100	3
Total	4						400	12

Ability Enhancement Compulsory Course (AECC) English

B.Com / B.Com CS / BBA I to IV Sem

Semester	Subject Code	Teaching	Total Syllabus Hrs/Sem	Duration of Exam	Internal Assessment Marks	Sem End Exam Marks	Total Marks	Credits
I	MIL - 1	3 hrs	45	3 hrs	20	80	100	3
II	MIL - 2	3 hrs	45	3 hrs	20	80	100	3
III	MIL - 3	3 hrs	45	3 hrs	20	80	100	3
IV	MIL - 4	3 hrs	45	3 hrs	20	80	100	3
Total	4						400	12

Ability Enhancement Compulsory Course (AECC) English

BSc / BCA/ BSc (cs)/ BASc/ BASLP I to IV Sem

Semester	Subject Code	Teaching	Total Syllabus Hrs/Sem	Duration of Exam	Internal Assessment Marks	Sem End Exam Marks	Total Marks	Credits
I	MIL - 1	3 hrs	45	3 hrs	20	80	100	3
II	MIL - 2	3 hrs	45	3 hrs	20	80	100	3
III	MIL - 3	3 hrs	45	3 hrs	20	80	100	3
IV	MIL - 4	3 hrs	45	3 hrs	20	80	100	3
Total	4						400	12

Ability Enhancement Compulsory Course (AECC) MIL

BA Hotel Management I to II Sem

Semester	Subject Code	Teaching	Total Syllabus Hrs/Sem	Duration of Exam	Internal Assessment Marks	Sem End Exam Marks	Total Marks	Credits
I	MIL- 1	3 hrs	45	3 hrs	20	80	100	3
II	MIL - 2	3 hrs	45	3 hrs	20	80	100	3
Total	2						200	6

Tel: "UNIKARNATAK"

ಕರ್ನಾಟಕ
KARNATAK

ವಿಶ್ವವಿದ್ಯಾಲಯ
ಧಾರವಾಡ

"Diamond Jubilee Year 1949-2009"

Phone:0836-2215224

Pavate Nagar, Dharwad -580003
Karnataka (India)

No. KU/Aca(S&T)/(SSK-235)/BOS(Phy) /18-19/ 2900 Date: 24 JAN 2018

NOTIFICATION

Sub: Regarding revised M.Sc Physics (CBCS) Syllabus I & II Semester w.e.f. 2018 and for III & IV Semester w.e.f. 2019 & onwards.

Ref: 1. Ad-hoc BOS Res. No. 02, dt. 21.9.2017.
2. Science Faculty Res. No. 07, dt. 24.11.2017.
3. AC Res. No. 08, dt. 16.12.2017.
4. Vice-Chancellor order dt. 16.01.2018

Adverting to the above it is hereby notified to the Chairman, Dept. of Physics, K.U.Dharwad and the Principals of Constituent & Affiliated Colleges that the M.Sc Physics (CBCS) Syllabus I & II Semester w.e.f. 2018 and for III & IV Semester w.e.f. 2019 & onwards.

Hence, the contents of this notification may please be brought to the notice of the student and all concerned.

The said syllabus is displayed on our University website i.e. www.kud.ac.in Academic Folder.

REGISTRAR

To,

1. The Chairman, Dept. of Physics, K.U. Dharwad for kind information.
2. The Principals of Constituent & Affiliated Colleges.
3. The Registrar (Evaluation), K.U.Dharwad.

Copy to:

1. Dr. K.Pancharatna, Dean Faculty of Science and Technology, PG Dept. of Studies in Zoology, K.U. Dharwad.

Copy for information and necessary action to:

1. P.S. to Vice-Chancellor, K.U.Dharwad.
2. S.A. to Registrar, K.U.Dharwad.
3. O.S. Exam (Confl) / QP / GAD / PG, Academic (PG) & CDC Section, K.U.Dharwad.

Karnatak University

Dharwad

Department of Physics

Syllabus based on Choice Based Credit System (CBCS)

(2018 Scheme)

for

M. Sc.Course in PHYSICS

With effect from the year 2018 for the I & II Semesters and from the year 2019 for III & IV Semesters Onwards

members.

M.Sc. Course in Physics
Choice Based Credit System (CBCS)
(2018 Scheme)
Teaching and Evaluation Scheme

Sem. No.	Course code	Title of the Paper	Credits	Teaching Hrs/week	Duration of Exam. in hours for Theory/ Practical	Maximum Marks		
						Semester -End Exam	IA	Total
	Compulsory Courses							
I	PH CT1.1	Mathematical Methods in Physical Sciences	4	4	3	75	25	100
	PH CT1.2	Classical Mechanics	4	4	3	75	25	100
	PH CT1.3	Electronics (General)	4	4	3	75	25	100
	PH CT1.4	Condensed Matter Physics (General)	4	4	3	75	25	100
	PH CP1.5	**Practical– I** Electronics and Condensed Matter Physics (General)	4	4	4	75	25	100
	PH CP1.6	**Practical– II** Atomic & Molecular and Nuclear & Particle Physics (General)	4	4	4	75	25	100

	Compulsory Courses							
II	PH CT2.1	Quantum Mechanics-I	4	4	3	75	25	100
	PH CT2.2	Atomic & Molecular Physics (General)	4	4	3	75	25	100
	PH CT2.3	Nuclear & Particle Physics (General)	4	4	3	75	25	100
	PH ET2.4	**Open Elective Course**: Modern Physics	4	4	3	75	25	100

	PH CP2.5	**Practical–III** Electronics and Condensed Matter Physics (General)	4	4	4	75	25	100
	PH CP2.6	**Practical– IV** Atomic & Molecular and Nuclear & Particle Physics (General)	4	4	4	75	25	100
III	**Compulsory Course:**							
	PH CT3.1	Quantum Mechanics-II	4	4	3	75	25	100
	Specialization Courses:							
	PH ST3.2	Electronics-I/ Condensed Matter Physics-I/ Atomic & Molecular Physics-I/ Nuclear & Particle Physics-I	4	4	3	75	25	100
	PH ST3.3	Electronics-II/ Condensed Matter Physics-II/ Atomic & Molecular Physics-II/ Nuclear & Particle Physics-II	4	4	3	75	25	100
	PH ET3.4	**Open Elective Course**: a. Instrumental Methods Or b. Physics of Nanomaterials	4	4	3	75	25	100
	PH SP3.5	**Practical** Electronics-I/ Condensed Matter Physics-I/ Atomic & Molecular Physics-I/ Nuclear & Particle Physics-I	4	4	4	75	25	100
	PH SP3.6	**Practical** Electronics-II/ Condensed Matter Physics-II/ Atomic & Molecular Physics-II/ Nuclear & Particle Physics-II	4	4	4	75	25	100
IV	**Compulsory Courses:**							
	PH CT4.1	Classical Electrodynamics	4	4	3	75	25	100
	PH CT4.2	Statistical and Thermal Physics	4	4	3	75	25	100
		Specialization Courses:						
	PH ST4.3	Electronics-III/ Condensed Matter Physics-III/ Atomic & Molecular Physics-III/ Nuclear & Particle Physics-III	4	4	3	75	25	100
	PH ST4.4	Electronics-IV/ Condensed Matter Physics-IV/ Atomic & Molecular Physics-IV/ Nuclear & Particle Physics-IV	4	4	3	75	25	100
	PH SP4.5	**Practical** Electronics-III/ Condensed Matter Physics-III/ Atomic & Molecular Physics-III/ Nuclear & Particle Physics-III	4	4	4	75	25	100
	PHSPJ4.6	**Project:** Electronics/ Condensed Matter Physics/ Atomic & Molecular Physics/ Nuclear & Particle Physics	6	6	4	75 (Dissertation) + 50(Viva-voce)	25	150

KARNATAK UNIVERSITY

M. Sc. Chemistry

Choice Based Credit System

(CBCS)

Revised Syllabus

(w.e.f. 2019-20)

KARNATAK UNIVERSITY, DHARWAD
M.Sc. DEGREE PROGRAMME IN CHEMISTRY
(With effect from 2019-20)

(CBCS)
Course Structure and Scheme of Examination:

FIRST SEMESTER

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams.	Total Marks
A. Core Subjects						
CHGT–1.1: Inorganic Chemistry–I	4	4	3	25	75	100
CHGT–1.2: Organic Chemistry–I	4	4	3	25	75	100
CHGT–1.3: Physical Chemistry– I	4	4	3	25	75	100
CHGT–1.4: Analytical Chemistry	4	4	3	25	75	100
B. Practical						
CHG(Pr)–1.5: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
CHG(Pr) –1.6: Lab Course in Organic Chemistry	2	4	4	10	40	50
CHG(Pr) –1.7: Lab Course in Physical Chemistry	2	4	4	10	40	50
CHG(Pr) –1.8: Lab Course in Analytical Chemistry	2	4	4	10	40	50
Total	24	32	28	140	460	600

SECOND SEMESTER

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams.	Total Marks
A. Core Subjects						
CHGT–2.1: Inorganic Chemistry–II	4	4	3	25	75	100
CHGT–2.2: Organic Chemistry–II	4	4	3	25	75	100
CHGT–2.3: Physical Chemistry–II	4	4	3	25	75	100
B. Elective						
CHET-2.1: Applied Inorganic Chemistry						
C. Practical						
CHG(Pr) –2.4: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
CHG(Pr) –2.5: Lab Course in Organic Chemistry	2	4	4	10	40	50
CHG(Pr) –2.6: Lab Course in Physical Chemistry	2	4	4	10	40	50
Total	22	28	24	130	420	550

KARNATAK UNIVERSITY, DHARWAD

NAAC Accredited with "A" Grade-2014

P.G. Department of Studies in Mathematics

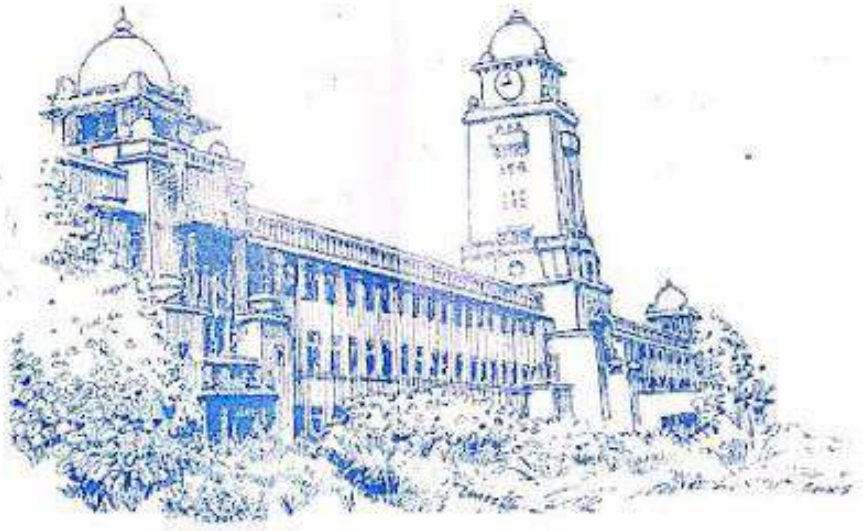
Regulations and Syllabus

for

MATHEMATICS

(I to IV Semesters)

Under Choice Based Credit System



With effect from 2013-14

THIRD SEMESTER

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams.	Total Marks
A. Core Subjects						
Inorganic Chemistry						
CHGT–3.1: Inorganic Chemistry	4	4	3	25	75	100
CHGT–3.2: Organic Chemistry	4	4	3	25	75	100
CHGT–3.3: Physical Chemistry	4	4	3	25	75	100
B. Elective						
CHEOT-3.1: Applied Organic Chemistry OR CHEPT-3.1: Applied Physical Chemistry						
C. Practical						
CHG(Pr)–3.4: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
CHG(Pr)–3.5: Lab Course in Organic Chemistry	2	4	4	10	40	50
CHG(Pr)–3.6: Lab Course in Physical Chemistry	2	4	4	10	40	50
Total	22	28	24	130	420	550

Sl. No.	Paper & Title	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
	III Semester (w.e.f. 2012-13)						
3.1 CT	Measure Theory	4	4	3	25	75	100
3.2 CT	Complex Analysis-II	4	4	3	25	75	100
3.3 CT	Topology-II	4	4	3	25	75	100
3.4 CT	Differential Geometry-I	2	2	2	15	35	50
3.5 CT	Numerical Methods	2	2	2	15	35	50
3.6 CP	Programming Lab-II	2	4	3	15	35	50
3.7 OEC3	Discrete Mathematical Structures	4	4	3	25	75	100
	Total of III Semester	***22***					***550***
	IV Semester (w.e.f. 2012-13)						
4.1 CT	Functional Analysis	4	4	3	25	75	100
4.2 CT	4.2CT(a) Fuzzy Topology OR 4.2CT(b) Dimension Theory OR 4.2CT(c) Relativity OR 4.2CT(d) Ring Theory OR 4.2CT(e) Galois Theory OR 4.2CT(f) Number Theory	4	4	3	25	75	100
4.3 CT	4.3CT(a) Graph Theory OR 4.3CT(b) Differentiable Manifolds OR 4.3CT(c) Nevanlinna Theory OR 4.3CT(d) Geometric Function Theory OR 4.3CT(e) Group Theory OR 4.3CT(f) Commutative Algebra	4	4	3	25	75	100
4.4 CP	Differential Equations-III	2	2	2	15	35	50
4.5 CP	Differential Geometry-II	2	2	2	15	35	50
4.6 CT	Integral Transforms and Integral Equations	2	2	2	15	35	50
4.7 CP	Programming Lab - III	2	4	3	15	35	50
4.8 CPW	***Project Work***	***4***	***4***		***25 (Viva)***	***75***	***100***
	Total of IV Semester	***24***					***600***
	Grand total of all semesters (I to IV)	***90***					***2250***

Note: CT – Compulsory Theory
CP – Compulsory Practical
CPW – Compulsory Project Work
OEC – Open Elective Course (for other Department Students)

KARNATAK UNIVERSITY, DHARWAD
Department of Mathematics
CHOICE BASED CREDIT SYSTEM (CBCS)
(w.e.f. 2011-12)
Course Structure and Scheme of Examination

Sl. No.	Paper & Title	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
	I Semester (w.e.f. 2011-12)						
1.1 CT	Algebra-I	4	4	3	25	75	100
1.2 CT	Real Analysis	4	4	3	25	75	100
1.3 CT	Topology-I	4	4	3	25	75	100
1.4 CT	Differential Equations-I	2	2	2	15	35	50
1.5 CT	Discrete Mathematics	2	2	2	15	35	50
1.6 CT	Computer Programming	2	2	2	15	35	50
1.7 CT	***Operations Research***	***4***	***4***	***3***	***25***	***75***	***100***
	Total of I Semester	***22***					***550***
	II Semester (w.e.f. 2011-12)						
2.1 CT	Algebra-II	4	4	3	25	75	100
2.2 CT	Complex Analysis-I	4	4	3	25	75	100
2.3 CT	Linear Algebra	4	4	3	25	75	100
2.4 CT	Functions of Several Variables	2	2	2	15	35	50
2.5 CT	Differential Equations-II	2	2	2	15	35	50
2.6 CP	Programming Lab-I	2	4	3	15	35	50
2.7 OEC2	Fuzzy Sets & Fuzzy Logic	4	4	3	25	75	100
	Total of II Semester	***22***					***550***