KONGU ARTS AND SCIENCE COLLEGE
(Autonomous)
Affiliated to Bharathiar University, Coimbatore
Approved by UGC, AICTE, New Delhi & Re accredited by NAAC, DBT STAR College Scheme
(An ISO 9001: 2015 Certified Institution)
Nanjanapuram, Erode – 638 107

Minutes

Meeting of the Board of Studies held on 19.03.2022

For the Academic Year 2022 – 2023
(Phase II)

KONGU
Assuring the Best

KONGU ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)
Nanjanapuram, Erode – 638 107.

DEPARTMENT OF BIOCHEMISTRY

BOARD OF STUDIES MEETING

AGENDA

DATE: 19.03.2022

1. To consider and approve the Scheme of the Examination and Syllabus for the students admitted during the academic year 2020-2021& 2021–2022 and onwards.
2. To consider and approve "Gender Studies" in Third Semester and "Fundamentals of Yoga" in Fourth Semester under Part IV for UG students admitted during the academic year 2021–2022 and onwards.
3. To consider and approve the Online Comprehensive Examination in Third Semester for PG students admitted during the academic year 2021–2022 and onwards.
4. To consider and approve the Panel of Examiners.
5. To consider and discuss any other subjects with the permission of the chair.

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The meeting of the Board of Studies in **BIOCHEMISTRY**

UG/PG was conducted on 19.03.2022 at 10.30 a.m. through Google Meet.

The following members were present:

Chairman : **Dr. A. K. Vidya**

Members :

1. Mr. R. RASU	(Senior Faculty)
2. Dr. N. SANGEETHA	(Senior Faculty)
3. Dr. S. SUJA	(University Nominee)
4. Dr. T. PALVANNAN	(Subject Expert)
5. Dr. K. JEYAPRAKASH	(Subject Expert)
6. Dr. M. SARAVANAKUMAR	(Industrial Expert)
7. Dr. S. SUDARSHAN	(Alumni Representative)
8. Mr. S. NATARAJAN	(Faculty Member)
9. Mr. G. KARTHIKEYAN	(Faculty Member)
10. Mr. T. G. NAGULAN	(Faculty Member)

Subject related to CBCS, implementation of SWAYAM / Equivalent Course for PG Students, Self Study courses for UG Students under Part IV, Online Comprehensive Examination for PG students and Panel of Examiners were discussed and the following are the resolutions:

1. It is resolved to approve

   a. There is no change in the Syllabi of I and II Semesters for the B.Sc and M.Sc Biochemistry students to be admitted during the academic year 2022 - 2023 and onwards.

   b. There is a modification in the Scheme of Examination and Syllabus of III and IV Semesters for the B.Sc and M.Sc Biochemistry students admitted during the academic year 2021 – 2022 and onwards.

   c. There is no change in the Scheme of Examination and syllabus of V and VI Semesters for the B.Sc Biochemistry students admitted during the academic year 2020 – 2021 and onwards.

   d. There is no change in the Non-Major Elective Courses of III and IV Semesters for the B.Sc Biochemistry students admitted during the academic year 2021 – 2022 and onwards.

   e. There is a modification in the Skill based Courses of III and IV Semesters for the B.Sc Biochemistry students admitted during the academic year 2021 – 2022 and onwards.

   f. There is no change in the Advanced Learner Courses of IV & V Semester for the B.Sc Biochemistry students admitted during the academic year 2021–2022 and onwards

   g. There is a modification in the Advanced Learner Courses of III Semester for the M.Sc Biochemistry students admitted during the academic 2021–2022 and onwards.

   h. New Courses "Gender Studies" in III Semester and "Fundamentals of Yoga" in IV Semester as self study courses have been introduced under Part IV for UG students admitted during the academic year 2021-2022 and onwards

2. It is resolved to approve the implementation of SWAYAM / Equivalent Course offered in IV Semester for M.Sc Biochemistry students admitted during the academic year 2021-2022 and onwards.

3. It is resolved to approve the Online Comprehensive Examination in Third Semester for the M.Sc Biochemistry students admitted during the academic year 2021–2022 and onwards.

4. It is resolved to approve the additional name for Panel of Members for Question Paper Setting and Central Valuation. (Annexure - I)

B.Sc Biochemistry

The following modifications are done in the Syllabi of III and IV Semesters for the B.Sc Biochemistry students admitted during the academic year 2021 – 2022 and onwards.

- The Core Paper **Cell Biology** is shifted from Semester I to Semester III due to the incorporation of Professional English Paper and the course name has been renamed as **Cell Biology and Genetics** with the inclusion of 2 units from Genetics.
- The **Core Paper Microbiology** shifted from the Part III to Part IV as **Skill Based** Course and renamed as **Fundamentals of Microbiology**
- The Skill Based Course I - **Nutritional Biochemistry** has been removed from the III Semester and shifted to the V Semester as Clinical Nutrition in the scheme.
- The following Allied Courses are introduced instead of existing Allied Courses from the Scheme of B.Sc Biochemistry
  - Allied Paper IV - Python Programming instead of Computer and Information Technology
  - Allied Practicals II - Python Programming Lab instead of Computer and Information Technology Lab
- Modification by addition and removal of topics are carried out in the in the syllabi of III and IV Semesters (Refer Annexure II a)

M.Sc Biochemistry

The following modifications are done in the Syllabi of III and IV Semesters for the M.Sc Biochemistry students admitted during the academic year 2021 – 2022 and onwards.

- The Core Paper **Microbial Biochemistry** in Semester II will be offered as one of the Elective paper in the III Semester.
- The following Elective Courses are removed from the Scheme of M.Sc Biochemistry
  - Elective Paper III - Biochemical and Environmental Toxicology
  - Elective Paper III - Proteomics
  - Elective Paper III - Characterization and Applications of Nanomaterials
  - Elective Paper IV - Bioinformatics Practicals
- The following Elective Courses are introduced instead of above removed Elective Papers from the Scheme of M.Sc Biochemistry
  - Elective Paper III - Nutritional Biochemistry
  - Elective Paper III - Molecular Basis of Infectious & Non-infectious Diseases
  - Elective Paper IV - Molecular Diagnostics
- The Advanced Learner Course II - **Bioethics and Intellectual Property Rights** had been removed and replaced with new course of **Fundamentals of Pharmacovigilance**.
- **Methods in Molecular Biology** will be offered as an alternative Course for the Swayam Online Courses in the Semester IV.
- Modification by addition and removal of topics are carried out in the in the syllabi of III and IV Semesters (Refer Annexure II b)

Annexure II a

B.Sc Biochemistry

S.No	Course Name	Topics introduced	Topics removed
1.	Core V – Enzyme and Enzyme Technology	Suicide Inhibitors	Mechanism of action of Lysozyme
2.	Core Biochemistry Practicals II	**Colorimetry experiments :** Estimation of Proteins by Lowry's method and Estimation of Sugar by Ortho-Toludine method **Demonstration Experiment:** Operation and Handling of Microscopes **Enzyme Studies** Effect of pH, Temperature, Substrate and enzyme concentration on enzyme activity of Acid Phosphatase	**Estimation of Nutritional content in food samples:** • Estimation of Iron from Plant source by Wong's method • Estimation of Fructose from Fruits by Seliwanoff method • Estimation of Ascorbic acid (Vitamin C) from Citrus Fruits by Dye Method • Estimation of Calcium in Milk • Determination of Casein from Milk **Demonstration experiment:** • Isolation of Lecithin from Egg Yolk • Estimation of Oil in Oil seeds • Determination of Caffeine from Tea leaves **[The above experiments shifted to Core Biochemistry Practicals]**
3.	Skill Based II: Nanotechnology and Clinical trials	Laser Ablation	Chemical synthesis of Nanoparticles

Annexure II b

M.Sc Biochemistry

S.No	Course Name	Topics introduced	Topics removed
1.	Core X- Advanced Clinical Biochemistry	Clinical significance of Bile salts and Bile pigments Lysosomal Storage disorders	-
2.	Core XI - Metabolism and Metabolic Regulation	Regulation of Fatty acid oxidation	-
3.	Core XII - Genetic Engineering	Blue-White Screening method	• Plasmid vectors – pEMBL, pBluescript • High Capacity Cloning Vector –PAC, HAC • Probe Labeling methods: Strand synthesis labeling (DNA Probes), Run-off transcription (RNA Probes), End labeling (Oligonucleotide Probes) • Standard PCR, Quantitative PCR • Transgenic science in plant improvement, Biopharming - plants as bioreactors. • Transgenic science for animal improvement, Biopharming- Animals as bioreactors.
4.	Core XIV - Research Methodology and Biostatistics	-	• Presentation of Data: Graphical presentation - Tabular, Chart, Diagrammatic presentation. • SPSS Packages
5.	Elective – IV – A Elective Practicals- Cell Culture and Molecular Techniques	• Isolation of DNA from Plant cell • Isolation of DNA from Blood cell • Enzyme immobilization techniques – Using Sodium Alginate. • Southern Blotting Techniques – Capillary Blotting/ Passive Diffusion blotting on Nitrocellulose	• PTC Laboratory Organization • Preparation of PTC Medium • Preparation of ATC Medium and membrane Filtration (Demonstration) • Methods in molecular biology (demonstration): Isolation of Genomic DNA, Isolation of Plasmid DNA