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AKKAMAHADEVI WOMEN'S UNIVERSITY, VIJAYAPURA

(Formerly: Karnataka State Women's University, Vijayapura)

Prof. S.B. Madagi, MSc. PhD
Chairman
Email: biotechnologykswuv@gmail.com
Office: *(08352) 229125*

Dean Faculty of Science and Technology
Department of Biotechnology
Jnanashakti Campus Toravi, Vijayapura – 586 108
Cell: *+917406863822*

No. AMWUV/DBT/2017-18/176

Date: 12-09-2017

To,
The Registrar
Akkamahadevi Women's University,
Vijayapura – 586 108

Respected Sir,

Sub: Submission of BOS Proceedings of Biotechnology of the academic year 2017-18

With reference to the subject cited above, please find enclosed the BOS meeting proceedings in Biotechnology of the academic year 2017-18 was held on 02-08-2017 at 11:00 am in the dept. of Biotechnology.

Thanking you,

Yours faithfully

CHAIRPERSON
Post Graduate Dept. of Studies & Research in Biotechnology
Akkamahadevi Women's University
VIJAYAPURA-586108

Enclose: BOS meeting proceedings : 30 sets

RBS
14/9/17

PROCEEDINGS OF THE BOS MEETING IN BIOTECHNOLOGY

The meeting of the Board of Studies is held on 02-08-2017 at 11:00 AM in the department of Biotechnology, Akkamahadevi Women's University, Vijayapura.

AGENDA

1. Revision of syllabus
2. Preparation of Panel of Examiners list

RESOLUTION

1. The members discussed the revision of syllabus for MSc Biotechnology thoroughly and approved the same, to be implemented from the academic year 2018-19
2. Panel of Examiners for MSc Biotechnology is prepared and approved

Members Present:

1. Prof. S.B. Madagi -- Chairman
   Dept. of Bioinformatics
   A.M.W.U., Vijayapura
2. Prof. Chandrakanth Kelmani -- Member
   Dept. of Biotechnology
   Gulbarga University, Kalaburagi

Members Absent:

1. Prof. Riyaz Mohammed -- Member
   Dept. of Biotechnology
   Kuvempu University, Shivamogga
2. Dr. Bhuvanendra Kumar -- Member
   Project Manager
   Novozymis INC, Ltd. Bangalore

Biotech BOS 1.1.2 not necessary 11.2/11.2.2

KARNATAKA STATE AKKAMAHADEVI WOMEN'S UNIVERSITY, VIJAYAPURA

(Formerly: Karnataka State Women's University)

Prof. G. G. Rajput
Chairman, BoS

Department of Biotechnology
Jnanashakti Campus Toravi, Vijayapura – 586 108

Date: 16/06/2020

BoS (PG) BIOTECHNOLOGY

Proceedings of the meeting of BoS (PG) in Biotechnology subject held through circulation from 12-06-2020 to 16-06-2020.

The members present:

1. **Dr. G.G. Rajput**, Dean, Faculty of Science and Technology, KSAWUV, **Chairman**
2. **Prof. Chandrakant Kelamani**, Dept. of Biotechnology, Gulbarga University, Kalaburagi **Member**
3. **Prof. Manjulakumari R.** Chairperson, Dept. of Microbiology and Biotechnology, Bangalore University, Bengaluru **Member**
4. **Dr. Sukanta Mondal**, Principal Scientist, Animal Physiology, ICAR, National Institute of Animal Nutrition, Adagodi, Bengaluru **Member**

Agenda 1: Review of the existing syllabus under CBCS scheme for corrections (Credits, title and content modification enclosed). Correction of practical course marks (existing 50 marks to 100 marks as per CBCS scheme)

Resolution: The board reviewed the existing MSc (Biotechnology)I-IV semester syllabus. The board made necessary changes/corrections in text, credit allocation, marks for practical course and. The board also resolved to approve the updated M.Sc (Biotechnology) syllabus w.e.f. 2020-21 and onwards.

Agenda 2: Preparation and approval of Panel of Examiners for the year 2020-21.

Resolution: The board prepared and approved the panel of examiners for Biotechnology for the academic year 2020-21.

Agenda 3: Modification of question paper pattern for M.Sc. Biotechnology practical (I to IV Sem) examination as per the CBCS pattern.

Resolution: The board revised that marks for practical course and also revised question paper pattern for practical exam.

(Prof. G. G. Rajput)
Chairman, BoS (PG)
in Biotechnology

Gmail

Biotechnology kswuv <biotechnologykswuv@gmail.com>

Meeting of BoS (PG) in Biotechnology 2021-22 through circulation.

3 messages

Biotechnology KSWUV <biotechnologykswuv@gmail.com> Tue, Dec 7, 2021 at 4:53 PM
To: ckelmani@gmail.com, manjula.doddamane@gmail.com, sukanta781@gmail.com
Cc: azizmakandar@gmail.com
Bcc: azizkswu@gmail.com

To,
1. Prof. Chandrakant Kelamani, Dept. of Biotechnology, Gulbarga University, Kalaburagi
2. Prof. Manjulakumari R. Chairperson, Dept. of Microbiology and Biotechnology, Bangalore University, Bengaluru
3. Dr. Sukanta Mondal, Principal Scientist, Animal Physiology, ICAR, National Institute of Animal Nutrition, Adagodi, Bengaluru

Sub: Meeting of BoS (PG) in Biotechnology through circulation.

Madam/Sir,

AGENDA

1. Revision and approval of model theory question paper pattern.
2. Preparation and approval of Panel of Examiners for the year 2021-22.
3. Revision of paper codes, credits and marks for each paper in the syllabus.
4. Reviewing the inclusion of open elective papers for First and Second Semester with syllabus content.
5. Reviewing and approval of PSO and PCO to be included in the syllabus.
6. Reviewing and approval of minor revision in Second Semester Paper – Molecular Biology (HCT 2.1) Unit VII Genome sequencing revised as Genome editing and Third Semester Paper – Genetic engineering (HCT 3.1) Unit VII DNA sequencing revised with additional content.

I request you to kindly approve the same with recommendations, if any, on or before 14.12.2021 through e-mail. If nothing is heard before 14-12-2021, it will be presumed that the approval is given.

Thanking you,

Prof. Aziz Makandar
Dean, Faculty of Science
Chairman
Dept. of Biotechnology
Karnataka State Akkamahadevi Women's University,
Jnanashakti Campus Torvi,
Vijayapura - 586 108 KARNATAKA

Contact No.: 9845051097 (M)

11 attachments

BoS Meeting Circular 07-12-2021.jpg
530K

Inclusion of Open Elective Paper for Second Semester - Research Methodology.doc
30K

Biotech Panel of Examiners 2021-22.doc
143K

Inclusion of Open Elective Paper for First Semester - Entrepreneurship.doc

w Revised Biotech syllabus 2021-22 BoS.doc
430K

Old Biotech syllabus 24-07-2020.doc
353K

Old Theory question paper pattern for reviewing.doc
27K

Proceedings of BoS (Biotech) 2021-22.doc
47K

Program Outcomes and Program Specific Outcomes.doc
35K

Revised Question Theory Paper Pattern.doc
28K

Revised Paper Code and Credit Scheme.doc
124K

Sukanta Mondal <sukanta781@gmail.com> Thu, Dec 9, 2021 at 2:59 PM
To: Biotechnology KSWUV <biotechnologykswuv@gmail.com>

Dear sir
Greetings for the day.....

I will go through and get back to you before 14th December, 2021.

Regards,

S. Mondal

[Quoted text hidden]

--

Dr. Sukanta Mondal

Principal Scientist

Animal Physiology Division

ICAR- National Institute of Animal Nutrition and Physiology (NIANP)

Adugodi, Bangalore - 560 030

Mobile: 09449544315

Ph: 08025711164/Ext. 209 (O)

Email: sukanta781@gmail.com

Manjula Kumari Doddamane <manjula.doddamane@gmail.com> Sun, Dec 12, 2021 at 1:03 AM
To: Biotechnology KSWUV <biotechnologykswuv@gmail.com>

Dear Prof. Aziz Makandar
I have gone through the documents related to BOS review and approval for MSc Course in Biotechnology and have shown the corrections/changes to be incorporated in respective documents attached to this mail.
Regards

On Tue, Dec 7, 2021 at 4:52 PM Biotechnology KSWUV <biotechnologykswuv@gmail.com> wrote:
[Quoted text hidden]

Dr. Manjulakumari Doddamane PhD, FRES
Fellow of Royal Entomological Society London
Former Secretary, Ethological Society of India
Former Professor and Chairman
Dept. of Microbiology and Biotechnology
Bangalore University
Jnanabharathi, Bengaluru-560 056
Mobile:+91-9972597957

8 attachments

- Biotech Panel of Examiners 2021-22.doc
  147K
- Inclusion of Open Elective Paper for First Semester - Entrepreneurship.doc
  27K
- Inclusion of Open Elective Paper for Second Semester - Research Methodology.doc
  29K
- New Revised Biotech syllabus 2021-22 BoS.doc
  427K
- Proceedings of BoS (Biotech) 2021-22.doc
  48K
- Program Outcomes and Program Specific Outcomes.doc
  39K
- Revised Paper Code and Credit Scheme.doc
  124K
- Revised Question Theory Paper Pattern.doc
  26K

Karnataka State Akkamahadevi Women's University, Vijayapura

BIOTECHNOLOGY

(M.Sc.)

(I to IV Semesters)

2021-22 onwards
(14.12.2021)

M.Sc. Biotechnology Program Overview

The Department of Biotechnology at Karnataka State Akkamahadevi Women's University imparts quality education through theoretical, practical and industrial exposure in order to enhance the students' knowledge in biotechnology as well as advanced biology. Biotechnology harnesses the core principles of engineering living organisms to generate controlled processes or products for human and environmental welfare related to the environment, biopharmaceutical, industrial, healthcare, food or agro-industries. The unique course structure is designed in consultation with clinical, agricultural and industrial experts to give you the cutting edge specialist knowledge and practical skills needed for a career in molecular biosciences. Through this Biotechnology program students are prepared with in-depth and wide knowledge related to biotechnology and its applications, as well as the next generation of scholars and teachers. This program covers teaching and research fields of specialization include Animal Cell Culture, Plant Tissue Culture, Phytochemistry, Nanotechnology, Fermentation technology, Bioprocess engineering, Biochemistry, Bacteriology, Cell biology, Cell signaling, Molecular biology, Genetics, Bioinformatics, Genomics, Proteomics, Parasitology, Plant science, Virology, Systems and Synthetic biology. The M.Sc. Biotechnology program at KSWUV will be unique, as it will cover all the major fields of Biotechnology, while focusing on laboratory practical experiences and industrial exposure with research skills. The students will be introduced to the concepts of "Entrepreneurship and start-ups". This allows students employability and further establishes their own new biotechnology enterprise. The overall aim of this program is to effectively engage students in learning, enhance their problem solving skills, to get deeper understanding of the discipline.

Program Outcomes (POs)

PO1	Ability to carry out research /investigation independently in specialized area of Biotechnology.
PO2	Ability to write and present a substantial technical report/document.
PO3	Ability to demonstrate a degree of mastery in the area of biotechnology to enable them in collaborative and multidisciplinary research.
PO4	Learn to recognise the need for continuous learning and will prepare oneself to create, select, learn and apply appropriate techniques, resources, and modern instrumentation to carry complex biotechnological activities with an understanding of the limitations.
PO5	Ability to manage projects efficiently and economically with intellectual integrity and ethics for sustainable development of society.

Programme Specific Outcomes (PSOs)

PSO1	Postgraduate students will be able to demonstrate and apply their knowledge of cell biology, biochemistry, microbiology and molecular biology to solve the problems related to the field of biotechnology.
PSO2	Postgraduate students will be able to demonstrate and apply the principles of bioprocess engineering in the design, analysis, optimization and simulation of bioprocess operations.
PSO3	Students will be able to gain fundamental knowledge in animal and plant biotechnology and their applications.
PSO4	Students will be equipped to understand three fundamental aspects in biological phenomenon: a) what to seek b) why to seek? c) how to seek
PSO5	Students will be able to (a) Describe fundamental molecular principles of genetics; (b) Understand relationship between phenotype and genotype in human genetic traits; (c) Describe the basics of genetic mapping; (d) Understand how gene expression is regulated.
PSO6	Students will be able (a) To extend the concepts of biochemistry to run experiments; (b) To understand the principle of measurements using basic laboratory instruments in biochemistry experiments.
PSO7	Students will be able to understand various facets of molecular procedures and basics of genomics, proteomics and metabolomics that could be employed in early diagnosis and prognosis of human diseases.
PSO8	Students will be able to gain hands on experience in gene cloning, protein expression and purification. This experience would enable them to begin a career in industry that engages in genetic engineering as well as in research laboratories.

Scheme of Teaching, Examination and Credit points of M.Sc. Biotechnology Programme w.e.f. 2021-22

Semester	Paper No. and Title	Teaching Hrs/week	Internal Assessment	Exam Hrs	Exam Marks	Total Marks
I	HCT-1.1: Cell Biology	04	30	03	70	100
	HCT-1.2: Biochemistry	04	30	03	70	100
	HCT-1.3: Biophysical and Biochemical techniques	04	30	03	70	100
	SCT-1.4: a: **Computational Biology** SCT-1.4: b: Biostatistics SCT-1.4: c: Enzymology	04	30	03	70	100
	HCP-1.1: Cell Biology	04	30	04	70	100
	HCP-1.2: Biochemistry	04	30	04	70	100
	HCP-1.3: Biophysical and Biochemical techniques	04	30	04	70	100
	SCP-1.4: Based on soft core paper - SCT 1.4	04	30	04	70	100
	OET -1.5: Offered by dept. Of Women's studies OET -1.6: Entrepreneurship and startups	04	30	03	70	100
	Total		270		630	900
II	HCT-2.1: Molecular Biology	04	30	03	70	100
	HCT-2.2: Microbiology	04	30	03	70	100
	HCT-2.3: Immunology	04	30	03	70	100
	SCT-2.4: a. **Bioinformatics** SCT-2.4: b. Immunotechnology SCT-2.4: c. Enzyme Technology	04	30	03	70	100
	HCP-2.1: Molecular Biology	04	30	03	70	100
	HCP-2.2: Microbiology	04	30	03	70	100
	HCP-2.3: Immunology	04	30	03	70	100
	SCP-2.4: Based on soft-core paper – SCT 2.4	04	30	03	70	100
	OET-2.5: Offered by the Department of Women's Studies OET-2.6: Research Methodology	04	30	03	70	100
	Total		270		630	900
III	HCT-3.1: Genetic Engineering	04	30	03	70	100
	HCT-3.2: Plant Biotechnology	04	30	03	70	100
	SCT-3.3: a. **Animal Biotechnology, Bioethics and IPR** SCT-3.3: b. Industrial Biotechnology SCT-3.3: c. Bio Separation technique	04	30	03	70	100
	HCP-3.1: Genetic Engineering	04	30	03	70	100
	HCP-3.2: Plant Biotechnology	04	30	03	70	100
	SCP-3.3: Based on soft-core paper – SCT 3.3	04	30	03	70	100
	HCP-3.4: Entrepreneurship and Startup Studies *	04	--	--	50	50
	OET-3.5: General Biotechnology	04	30	03	70	100
	Total		210		540	750
IV	HCT-4.1: Medical Biotechnology and Nanotechnology	04	30	03	70	100
	SCT-4.2: a. Environmental Biotechnology SCT-4.2: b. Microbial Biotechnology SCT-4.2: c. Food Technology	04	30	03	70	100
	HCPW-4.3: Project work*	06	50	--	100	150
	HCP-4.1: Medical Biotechnology and Nanotechnology	04	30	03	70	100
	SCP-4.2. Based on soft-core paper – SCT 4.2	04	30	03	70	100
	OET 4.4 Bioinstrumentation	04	30	03	70	100
	Total		200		450	650
	Total Marks: 3200					

HCT: Hard Core Theory; SCT: Soft Core Theory; HCP: Hard Core Practical, HCPW: Project Work and Dissertation, OET: Open Elective Theory

KARNATAKA STATE AKKAMADEVI WOMEN'S UNIVERSITY,VIJAYAPURA
COMPONENTS OF MASTER'S PROGRAM
(UNDER CBCS & CAGP SCHEME)
DEPARTMENT OF BIOTECHNOLOGY

2021-22

Sem	Paper No	Title of Paper	L	T	P
I	**Hard Core**				
	HCT-1.1	Cell Biology	04		
	HCT-1.2	Biochemistry	04		
	HCT-1.3	Biophysical and Biochemical techniques	04		
	HCP-1.1	Cell Biology			02
	HCP-1.2	Biochemistry			02
	HCP-1.3	Biophysical and Biochemical techniques			02
	Soft Core (Student have to chose any one of the following)				
	SCT-1.4	**a. Computational Biology** **b.** Biostatistics **c.** Enzymology	04		
	SCP-1.4	Based on soft core paper SCT-1.4			02
	Mandatory Course/Open Elective				
	OET 1.5 OET 1.6	Offered by dept. Of Women's studies Entrepreneurship and startups	04		
II	**Hard Core**				
	HCT-2.1	Molecular Biology	04		
	HCT-2.2	Microbiology	04		
	HCT-2.3	Immunology	04		
	HCP-2.1	Molecular Biology			02
	HCP-2.2	Microbiology			02
	HCP-2.3	Immunology			02
	Soft Core (Student have to chose any one of the following)				
	SCT-2.4	**a. Bioinformatics** **b.** Immunotechnology **c.** Enzyme technology	04		
	SCP-2.4	Based on soft core paper SCT 2.4			02
	Mandatory Course/Open Elective				
	OET 2.5 OET 2.6	Women and Health Research Methodology	04		
III	**Hard Core**				
	HCT-3.1	Genetic Engineering	04		
	HCT-3.2	Plant Biotechnology	04		
	HCP-3.1	Genetic Engineering			02
	HCP-3.2	Plant Biotechnology			02
	HCP-3.4	Entrepreneurship and Start-up Studies *			02
	Soft Core (Students have to choose any one of the following)				
	SCT-3.3	**a. Animal Biotechnology, Bioethics and IPR** **b.** Industrial Biotechnology **c.** Bio separation techniques	04		
	SCP-3.3	Based on soft core paper SCT 3.3			02

	Open Elective				
	OET 3.5	General Biotechnology	04		
IV	HCT 4.1	Medical Biotechnology and Nanobiotechnology	04		
	HCP-4.1	Medical Biotechnology and Nanobiotechnology			02
	HCPW-4.3	Project work*			06
	Soft Core (Students have to choose any one of the following)				
	SCT-4.2	**a. Environment Biotechnology** **b.** Microbial Biotechnology **c.** Food technology	04		
	SCP-4.2	Based on the soft core paper SCT-4.2			02
	Open Elective				
	OET 4.4	Bioinstrumentation	04		

COMPONENTS OF OPEN ELECTIVE COURSES OFFERED BY THE DEPARTMENT (UNDER CBCS & CAGP SCHEME)

Semester	Paper Code	Title of the paper	L	T	P
I	OET 1.5 OET 1.6	Offered by dept. Of Women's studies Entrepreneurship and startups	04		
II	OET 2.5 OET 2.6	Women and Health Research Methodology	04		
III	OET 3.5	General Biotechnology	04		
IV	OET 4.4	Bioinstrumentation	04		

HARD CORE – 18 + 18 + 14 + 12 = 62 CREDITS
SOFT CORE – 06 + 06 + 06 + 06 = 24 CREDITS
MANDATORY SUBJECT/OPEN ELECTIVE PAPER = 16 CREDITS
TOTAL CREDITS = 102

*** Entrepreneurship and Startup Studies Report is Mandatory in 3rd Semester**

L- Lecture, T- Tutorial, P- Practical

HCT- Hard Core Theory, SCT- Soft Core Theory, OE- Open Elective, HCP- Hard Core Practical, SCP- Soft Core Practical.

HCPW- Hard Core Project Work/Dissertation.
*The project evaluation marks 150 are a total of 100 marks for dissertation, 25 marks for presentation and 25 marks for viva.

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಅಕ್ಕಮಹಾದೇವಿ ಮಹಿಳಾ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ವಿಜಯಪುರ
Karnataka state Akkamahadevi Women's University, Vijayapura

Prof. Aziz Makandar
DEAN Faculty of Science & Technology

Email ID: azizkswu@gmail.com
Cell: +919845051097

No. KSAWUV/Dean./BOS/2022-23/ 68

Date: 16-08-2022

To,
The BOS (PG) Members
Department Biotechnology

Sir/Madam,

Sub: BOS (PG) meeting in Biotechnology (Online) -reg.
Ref: AWUV/Acd/AW-4/2022-23/1644 dated: 02-08-2022

With reference to subject cited above in pursuance to our telephonic communication. I am happy to invite you attend the meeting & approved the agenda of **BOS meeting in Biotechnology (PG) on 19-08-2022 at 11.00 am (Online)** in the Department of Biotechnology. Jnanashakti Campus Karnataka State Akkamahadevi Women's University, Vijayapura kindly make it convenient to attend the meeting on 19-08-2022 at 11.00 am through Zoom.

BOS meeting seating fees as per University norms.

AGENDA:

1. Revision /preparation of M.Sc Biotechnology syllabus for 1st to 4th semester and preparation of model question paper for implantation from the academic year 2022-23.
2. Preparation of Panel of examiners for the Academic year 2022-23.
3. Preparation of existing PG common regulations. 2018 as per NAAC.
4. Learning Outcome based Curriculum framework. UGC 2014 UGC Guidelines.
5. Emphasizing the relevance to local, regional, national and global development needs
6. Inclusion of Graduate Attributes, Program outcome, Program Specific Outcomes, Course Outcomes.
7. Emphasizing feedback analysis on curriculum.
8. Focus on employability.
9. Issue relating to professional ethics, gender, human values, environment and sustainability
10. Any other item with the permission of Chair:

Yours faithfully

Prof. Aziz Makandar
DEAN
Faculty of Science and Technology
KSAWUVijayapura

To,
The BOS Members,

1. **Prof. Aziz Makandar**, Dean Faculty of Science & Technology KSAWUVijayapura
2. **Prof. Chandrkant Kalamani,** Dept of Biotechnology, Gulbarga University, Kalaburagi
3. **Prof. Manjukumari R,** Chairperson Dept of Microbiology & Biotech Bangalore University Bengaluru
4. **Dr. Sukanta Mondal**, Principal Scientist Adagodi ICAR National Institute of Animal Nutrition, Bengaluru