

ST ALOYSIUS COLLEGE
(Autonomous)
P. B. No. 720
MANGALURU- 575 003, INDIA
Phone: +91-0824 2449700, 2449701
Fax: 0824-2449705
Email: principal_sac@yahoo.com
principal@staloysius.edu.in
Website: www.staloysius.edu.in



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Recognized by UGC as "College with Potential for Excellence"

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3rd Rank in "Swachh Campus" Scheme, by MHRD, Govt. of India

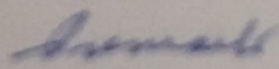
Date: 25-06-2020

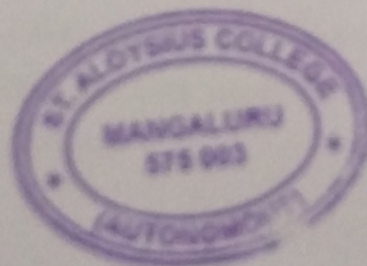
NOTIFICATION

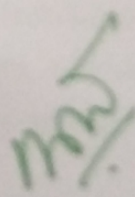
Sub: Syllabus of B.Sc. Biotechnology under Choice Based Credit System.

- Ref: 1. Decision of the Academic Council meeting held on 09-06-2020 vide
Agenda No: 9(2020-21)
2. Office Notification dated 25-06-2020

Pursuant to the above, the Syllabus of B.Sc. Biotechnology under Choice Based Credit System which was approved by the Academic Council at its meeting held on 09-06-2020 is hereby notified for implementation with effect from the academic year 2020-21.


PRINCIPAL




REGISTRAR

To:

1. The Chairman/Dean/HOD.
2. The Registrar Office
3. Library

**Scheme of Credit Based Semester System for the I to VI Semesters for B.Sc. in
Biotechnology**

I Semester

Paper	Instruction hours / week		Duration of Exam in Hours	Marks		Total Marks	Credits
	Theory	Pract.		Exam	LA		
G 511.1 (Theory) - Biophysics and Biostatistics	4	-	3	80	20	100	2
G 511.1P (Practical) - Biophysics and Biostatistics	-	3	3	40	10	50	1
Elective G511.1E Food Processing Technology	2	-	2	40	10	50	1

II Semester

Paper	Instruction hours / week		Duration of Exam in Hours	Marks		Total Marks	Credits
	Theory	Pract.		Exam	I. A.		
G 511.2 (Theory) - Biochemistry	4	-	3	70	30	100	2
G 511.2P (Practical) - Biochemistry	-	3	3	40	10	50	1
Elective G 511.2E Biotechnology & Its Applications	2	-	2	40	10	50	1

III Semester

Paper	Instruction hours / week		Duration of Exam in Hours	Marks		Total Marks	Credits
	Theory	Pract.		Exam.	I.A.		
G 511.3 (Theory) - Microbiology and Immunology	4	-	3	70	30	100	2
G 511.3P (Practical) - Microbiology and Immunology	-	3	3	40	10	50	1
Elective G511.3E Plant Tissue Culture & Mushroom Culture Techniques	2	-	2	40	10	50	1

IV Semester

Paper	Instruction hours / week		Duration of Exam in Hours	Marks		Total Marks	Credits
	Theory	Pract.		Exam	I.A		
G 511.4 (Theory) - Molecular Biology and Recombinant Technology	4	-	3	70	30	100	2
G 511.4P (Practical) - Molecular Biology and Recombinant Technology	-	3	3	40	10	50	1
Elective G511.4E Immune System & Disease Management	2	-	2	40	10	50	1

V Semester							
Paper	Instruction hours		Duration Exam.Hr	Marks		Total Marks	Credits
	Theory	Pract.		Exam	I.A.		
G 511.5a (Theory) - Plant Biotechnology	3	-	3	80	20	100	2
G 511.5b (Theory) - Animal Biotechnology	3	-	3	80	20	100	2
G 511.5P (Practical) - Plant biotechnology and Animal Biotechnology	-	4	4	80	20		2

VI Semester							
Paper	Instruction hours		Duration Exam.Hr	Marks		Total Marks	Credits
	Theory	Pract.		Exam	I. A.		
G 511.6a (Theory) Environmental Biotechnology	3	-	3	80	20	100	2
G 511.6b (Theory) -Bioprocess Technology	3	-	3	80	20	100	2
G511.6pa (Practical) Environment Biotech& Bioprocess technology	-	4	4	40	10	50	1
Project Work				40	10	50	1
OR							
Independent Practical Skill Development (IPSD)*	-	4	4	40	10	50	1

*is only to those students who don't have biotechnology project

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No: SAC 40/Syllabus 2019-20

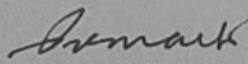
Date: 18-07-2019

NOTIFICATION

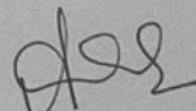
Sub: Syllabus of **B.Sc. Chemistry** under Choice Based Credit System.

- Ref: 1. Decision of the Academic Council meeting held on 02-05-2019 vide
Agenda No: 20(2019-20)
2. Office Notification dated 18-07-2019

Pursuant to the above, the Syllabus of **B.Sc. Chemistry** under Choice Based Credit System which was approved by the Academic Council at its meeting held on 02-05-2019 is hereby notified for implementation with effect from the academic year **2019-20**.


PRINCIPAL




REGISTRAR

To:

1. The Chairman/Dean/HOD.
2. The Registrar Office
3. Library

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Date: 25-06-2020

NOTIFICATION

Sub: Syllabus of **B.Sc. Chemistry** under Choice Based Credit System.

- Ref: 1. Decision of the Academic Council meeting held on 09-06-2020 vide
Agenda No: 19(2020-21)
2. Office Notification dated 25-06-2020

Pursuant to the above, the incorporation of CBCS III & IV Semester to the Syllabus of **B.Sc. Chemistry** under Choice Based Credit System which was approved by the Academic Council at its meeting held on 09-06-2020 is hereby notified for implementation with effect from the academic year 2020-21.

Sremath
PRINCIPAL



M.M.
REGISTRAR

To:

1. The Chairman/Dean/HOD.
2. The Registrar Office
3. Library

COURSE PATTERN

Course No & Paper / Practical	Teaching Hours per week	Duration of Exam (Hours)	Marks			Credits
			I A	Exam	Total	
FIRST SEMESTER						
G502.1: Chemistry Paper I	4	3	20	80	100	2
G502.1P: Chemistry Practical I	3	3	10	40	50	1
G502.1E: Essentials of Practical Chemistry	2	2	10	40	50	1
SECOND SEMESTER						
G502.2: Chemistry Paper II	4	3	20	80	100	2
G502.2P: Chemistry Practical II	3	3	10	40	50	1
G502.2E: Food and Industrial Chemistry	2	2	10	40	50	1
THIRD SEMESTER						
G502.3: Chemistry Paper III	4	3	20	80	100	2
G502.3P: Chemistry Practical III	3	3	10	40	50	1
G502.3E: Environmental Chemistry	2	2	10	40	50	1
FOURTH SEMESTER						
G502.4: Chemistry Paper IV	4	3	20	80	100	2
G502.4P: Chemistry Practical IV	3	3	10	40	50	1
G502.4E: Chemistry in Everyday Life	2	2	10	40	50	1
FIFTH SEMESTER						
G502.5a : Chemistry Paper V	3	3	20	80	100	2
G502.5b: Chemistry Paper VI	3	3	20	80	100	2
G502.5P: Chemistry Practical V	4	4	20	80	100	2
SIXTH SEMESTER						
G502.6a: Chemistry Paper VII	3	3	20	80	100	2
G502.6b: Chemistry Paper VIII	3	3	20	80	100	2
G502.6P: Chemistry Practical VI	4	4	20	80	100	2

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Date: 16-02-2021

NOTIFICATION

Sub: Syllabus of **B.Sc. Zoology** under Choice Based Credit System.

- Ref: 1. Decision of the Academic Council meeting held on 12-12-2020 vide
Agenda No: 14(2021-22)
2. Office Notification dated 16-02-2021

Pursuant to the above, the Syllabus of **B.Sc. Zoology** under Choice Based Credit System which was approved by the Academic Council at its meeting held on 12-12-2020 is hereby notified for implementation with effect from the academic year **2021-22**.


PRINCIPAL




REGISTRAR

To:

1. The Chairman/Dean/HOD.
2. The Registrar Office
3. Library

BOARD OF STUDIES IN ZOOLOGY

1. Chairperson : Dr. Hemachandra, Associate Professor
2. Members from the department : Mr. Hariprasad Shetty, Assistant Professor.
Ms. Karen Trescilla D'Souza, Assistant Professor.
Mr. Kiran Vati K, Lecturer.
Dr. Rachana B, Assistant Professor.
Mr. Glavin Thomas Rodrigues, Lecturer.
Ms. Reena Kishore, Student Representative.
3. External Members:

Subject Experts

Dr Siby Philip
Head of Zoology
Nirmalagiri College
Kuthuparamba, Kannur, Kerala, 670701.

Dr. Shamprasad Varija Raghu
Ramalingaswami Fellow/Associate Professor,
Dept of Applied Zoology, Mangalore University.

Vice-Chancellor Nominee

Dr. Nagarathna K A
Department of Zoology
Mangalore University College, Mangaluru

Representative from Industry / Corporate Sector / Allied Area

Conrad Charles I P
Atlantis Aquaria, # 16-7-448
Muthu's Compound
Balmatta
Mangaluru-575002

Meritorious Alumnus

Dr Sudeep Ghate
Post Doc fellow, NUCSER, Paneer
Deralkatte.

Scheme of credit based semester system for B.Sc.

Optional subject: Zoology

I Semester

Paper	Instructions hours/ week		Duration of exam hours	Marks		Total Marks	Credits
	Theory	Practical		Exam	IA		
G 508.1 (Theory) Animal Diversity (Non-Chordata)	4	-	3	80	20	100	2
G 508.1P (Practical) Animal Diversity (Non-chordata)	-	3	3	40	10	50	1
G 508.1E (Open Elective) Aquarium Maintenance and Fish Breeding Techniques	2	-	2	40	10	50	1

II Semester

Paper	Instructions hours/ week		Duration of exam hour	Marks		Total Marks	Credits
	Theory	Practical		Exam	IA		
G 508.2 (Theory) Animal Diversity (Chordata)	4	-	3	80	20	100	2
G 508.2P (Practical) Animal Diversity (Chordata)	-	3	3	40	10	50	1
G 508.2E (Open Elective) Apiculture	2	-	2	40	10	50	1

III Semester

Paper	Instructions hours/ week		Duration of exam hour	Marks		Total Marks	Credits
	Theory	Practical		Exam	IA		
G508.3 (Theory): Cell and Molecular Biology, Immunology	4	-	3	80	20	100	2
G 508.3P (Practical) Cell and Molecular Biology, Immunology	-	3	3	40	10	50	1
G 508.3E (Open Elective) Health and Lifestyle Diseases	2	-	2	40	10	50	1

IV Semester

Paper	Instructions Hours/ week		Duration of exam hour	Marks		Total Marks	Credits
	Theory	Practical		Exam	IA		
G 508.4 (Theory) Biochemistry and Animal physiology	4	-	3	80	20	100	2
G 508.4P (Practical) Biochemistry and Animal physiology	-	3	3	40	10	50	1
G 508.4E (Open Elective) Nature and Wildlife Photography	2	-	2	40	10	50	1

V Semester

Paper	Instructions Hours/ week		Duration of exam hour	Marks		Total Marks	Credits
	Theory	Practical		Exam	IA		
G 508.5A (Theory) Histology, Reproductive and Developmental Biology	3	-	3	80	20	100	2
G 508.5B (Theory) Ecology, Biostatistics, Ethology and Wildlife Biology.	3	-	3	80	20	100	2
G 508.5P (Practical) Histology, Reproductive and Developmental Biology Ecology, Biostatistics, Ethology and Wildlife Biology	-	4	4	80	20	100	2

VI Semester

Paper	Instructions hours/ week		Duration of exam hour	Marks		Total Marks	Credits
	Theory	Practical		Exam	IA		
G508.6A (Theory) Genetics, Evolution and Palaeontology	3	-	3	80	20	100	2
G 508.6B (Theory) Applied Zoology, Parasitology, Toxicology and Cancer Biology	3	-	3	80	20	100	2
G 508.6P (Practical) PART A: Genetics, Evolution and Palaeontology Applied Zoology, Parasitology, Toxicology and Cancer Biology	-	4	4	40	10	50	1
PART B: Project OR Additional Experiments	-	-	-	40	10	50	1

Broad outline of the syllabus
Subject: Zoology (Three major systems)

Year	Semester	Subject Code No	Paper
I year	1 st semester	G 508.1 Theory	Animal diversity (Non- Chordata)
		G 508.1P Practical	Animal diversity (Non-Chordata)
	2 nd Semester	G 508.2 Theory	Animal diversity (Chordata)
		G 508.2P Practical	Animal diversity (Chordata)
II year	3 rd semester	G 508.3 Theory	Cell and Molecular Biology, Immunology
		G 508.3P Practical	Cell and Molecular Biology, Immunology
	4 th semester	G 508.4 Theory	Biochemistry and Animal Physiology
		G 508.4P Practical	Biochemistry and Animal Physiology
III year	5 th Semester	G 508.5A Theory	Histology, Reproductive and Developmental Biology
		G 508.5B Theory	Ecology, Biostatistics, Ethology and Wildlife Biology
		G 508.5P Practical	Histology, Reproductive and Developmental Biology Ecology, Biostatistics, Ethology and Wildlife Biology
	6 th semester	G 508.6A Theory	Genetics, Evolution and Palaeontology
		G 508.6B Theory	Applied Zoology, Parasitology, Toxicology and Cancer Biology
		G 508.6P Practical	Part A: Genetics, Evolution and Palaeontology Applied Zoology, Parasitology, Toxicology and Cancer Biology Part B: Project OR Additional Experiments

Broad outline of the CBCS syllabus

Year	Semester	Subject Code No	Paper
I year	1 st semester	G 508.1E (Open Elective)	Aquarium maintenance and fish breeding techniques
I year	2 nd semester	G 508.2E (Open Elective)	Apiculture
II year	3 rd semester	G 508.3E (Open Elective)	Health and lifestyle diseases
II year	4 th semester	G 508.4E (Open Elective)	Nature and Wildlife photography