

Koll uncharitable trust
(Mysore)
Mangaluru- 575 003



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@staloyus.edu.in
Website: www.staloyus.edu.in

Re-accredited by NAAC with 'A' Grade - CGPA 3.62

Recognized by UGC as "College with Potential for Excellence"

College with 'STAR STATUS' conferred by DBT, Government of India

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

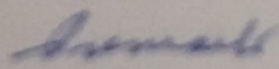
Date: 25-06-2020

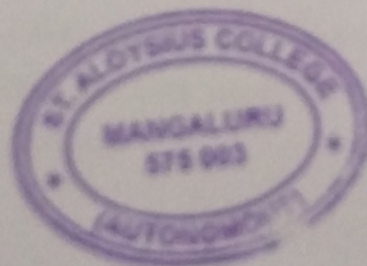
NOTIFICATION

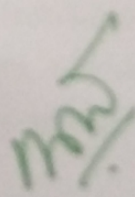
Sub: Syllabus of B.Sc. Biotechnology under Choice Based Credit System.

- 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

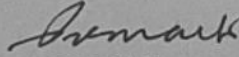
Date: 18-07-2019

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.
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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.

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REGISTRAR

To:

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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

ಶಾಲೆ ಅಧಿಕಾರಿಯರ ಕಛೇರಿ
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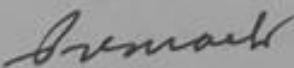
Date: 25-06-2020

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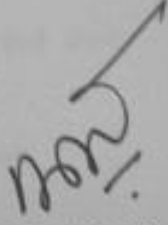
Sub: Syllabus of **B.Sc. Botany** under Choice Based Credit System.

- Ref: 1. Decision of the Academic Council meeting held on 09-06-2020 vide
Agenda No: 17(2020-21)
2. Office Notification dated 25-06-2020

Pursuant to the above, the Syllabus of **B.Sc. Botany** 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.


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PREAMBLE

St Aloysius College is named after St Aloysius Gonzaga. It is a Jesuit premier institute in Mangaluru, Karnataka, known for its rich heritage and quality education with a history of 140 years. The institution over the years has trained thousands of young men and women preparing them for life and presenting them to the nation. The institution has been able to redefine and reinforce the purpose of various innovations that have been initiated every year. The College has set high expectations and goal for all its learners and then tries in every possible way to help them to reach those goals. The College affiliated to Mangaluru University, was granted Autonomous status in the year 2007-2008.

In the field of Biological sciences, at the undergraduate level, the optional Botany has carved a niche from times immemorial. Many subjects like Biotechnology, Pharmacognosy, Microbiology, and Biochemistry have got their contributions and share from the traditional subject Botany. Botany with its strong fundamentals can only make the allied combinations more meaningful, fruitful and complete. In this context St Aloysius College has designed the course content of Botany to meet the needs of the present day students and enable them to join jobs, higher studies and research.

PROGRAMME SPECIFIC OUTCOMES:

On Completion of this Course students will be able to

- ❖ get an opportunity in further studies, research and employment in various areas of plant sciences.
- ❖ enhance their knowledge in the field of life sciences and are able to handle laboratory equipments and experimentation for higher education leading to research
- ❖ enhance the scope of employability by obtaining all-round knowledge in the allied subjects along with Botany.
- ❖ develop an awareness towards the environment, biodiversity, conservation and their significance.
- ❖ promote and popularize the study of Botany for its importance and its social relevance
- ❖ equip themselves for competitive examinations
- ❖ inculcate an interest for nature and the need to preserve the nature by maintaining green house, herbal gardens in the campus and environs

COURSE STRUCTURE

Scheme of Choice Based Credit System for B.Sc in Botany

Subjects	Paper	Instruction hours /week	Duration of Exam in hours	Marks			Cre
				IA	Exam	Total	
First Semester	G507.1 Virus, Bacteria & Algae	4	3	20	80	100	2
Theory							
Elective	G507.1 E Organic farming	2	2	10	40	50	1
Practical	G507.1P	3	3	10	40	50	1
Second Semester	G507.2 Fungi, Plant pathology, Bryophytes, and Plant Anatomy	4	3	20	80	100	2
Theory							
Elective	G507.2 E Plant Nutraceuticals	2	2	10	40	50	1
Practical	G507.2P	3	3	10	40	50	1
Third Semester	G507.3 Pteridophytes, Gymnosperms, Morphology and Embryology of Angiosperms	4	3	20	80	100	2
Theory							
Elective	G507.3E Medicinal Botany	2	2	10	40	50	1
Practical	G507.3P	3	3	10	40	50	1
Fourth Semester	G507.4 Plant Taxonomy, Ethnobotany and Economic Botany	4	3	20	80	100	2
Theory							
Elective	G507.4E Nursery Management and Gardening	2	2	10	40	50	1
Practical	G507.4P	3	3	10	40	50	1

Subjects	Paper	Instruction hours /week	Duration of Exam	Marks			Credits
				IA	Exam	Total	
Fifth Semester	G507.5a Plant Ecology & Sustainable Development	3	3	20	80	100	2
Theory							
Theory	G507.5b Cytogenetics & Molecular Biology	3	3	20	80	100	2
Practical	G507.5P	4	4	20	80	100	2
Sixth Semester	G507.6a Plant Physiology	3	3	20	80	100	2
Theory							
Theory	G507.6b Plant Biotechnology, Phytochemistry and Pharmacognosy	3	3	20	80	100	2
Practical Components							
A	Practical G507.6P	2	2	10	40	50	1
B	Project- G507.6 PR			10	40	50	1
C	Independent Practical Skill Development (IPSD)- G507.6P	2	2	10	40	50	1

Total Credits - 28