

DYAL SINGH COLLEGE, KARNAL

B.Sc. Medical

Subject: Bioinformatics

Programme Outcomes (POs) for One Year Certificate Programme of Faculty of Life Sciences

PO1	Knowledge	To inculcate theoretical and practical knowledge in fundamentals of bioinformatics.
PO2	Problem Solving	To instil the ability to critically evaluate problems and apply lateral thinking and analytical skills in solving them.
PO3	Ethics	To create awareness about ethical principles, professional responsibilities good scientific practices and biosafety.
PO4	Communication	To develop communication skills and be able to communicate effectively on general and scientific topics.
PO5	Employability	To prepare the students for career in teaching, research, industry, government organizations and entrepreneurship.
PO6	Science and Society	To develop an aptitude to apply the knowledge of the scientific principles for the benefit of society.
PO7	Modern Tool usage	To inculcate the ability to use and learn modern techniques, skills and tools for scientific practices
PO8	Life-Long Learning	To develop the capacity to apply knowledge and skills that are essential for participating in learning activities throughout the life

Programme Specific Outcomes (PSOs) for Zoology subject of Three Year B.Sc. Medical/ M.Sc. Forensic Science

PSO1	Understand the various concepts of cell biology and genetics necessary for bioinformatics.
PSO2	Gain necessary computer and statistical skills necessary for bioinformatics.
PSO3	Use understanding of subject and analytical methods in identifying and solving various complex situations.
PSO4	Encourage skillful expertise for a career as teacher, in industry or as entrepreneur in the realms of the subject.

SEMESTER-I

CC-BIF-101: Basics of Bioinformatics

Objective: To acquaint the students with the understanding of the basics of biology, biostatistics, computer languages, tools and techniques of bioinformatics for their professional development.

Course outcomes: After completing this course the students will:

- CO101.1 Understand the basics of cell biology and genetics.
- CO101.2 Be able to perform statistical analysis of biological data.
- CO101.3 Develop an understanding of the working of computers and different programming languages.
- CO101.4 Be able to use the tools and techniques of bioinformatics.

CC-BIF-102: Practical based on the paper - Basics of Bioinformatics

Objective: To provide the students with the practical experience to the tools and techniques of biostatistics, computer and bioinformatics for their professional development.

Course outcomes: After completing this course the students will be able to:

- CO102.1 Collect/ retrieve and analyze different kinds of data from various sources.
- CO102.2 Download DNA/Protein sequences from internet and analyze them.
- CO102.3 Be able to utilize tools of bioinformatics in data mining.

CC-BIF-103: Seminar/Project/Training Report

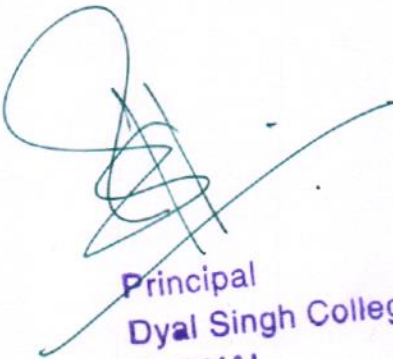
Objective: To inculcate in the students an aptitude for original research.

Course outcomes: After completing this course the students will:

- CO203.1 Be capable of in depth analysis of the given subject matter.
- CO203.2 Have hands-on experience in various tools of bioinformatics

CO-PO and CO-PSO Mapping Matrix for Semester II - Zoology

CC-BIF-101		Basics of Bioinformatics										
CC-BIF-102		Practical based on the paper - Basics of Bioinformatics										
CC-BIF-103		Seminar/Project/Training Report										
Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)			
COs#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO101.1	3	2	2	2	2	2	2	3	3	0.5	2.5	2
CO101.2	3	3	2	2.5	3	3	2.5	3	0.5	3	3	3
CO101.3	3	3	2	3	3	2.5	3	3	0.5	3	3	3
CO101.4	3	3	2	2	3	2.5	3	3	1.5	1	2.5	2.5
CO102.1	3	3	3	3	3	2.5	3	3	0.5	3	3	3
CO102.2	3	3	3	2.5	3	2.5	3	3	1.5	3	3	3
CO102.3	3	3	3	2.5	3	2.5	3	3	1	3	3	3
CO103.1	3	2.5	2	2.5	3	2	3	3	2	3	2.5	3
CO103.2	3	3	3	2.5	3	2.5	3	3	2	3	3	3
Average	3	2.83	2.44	2.5	2.89	2.44	2.83	3	1.39	2.5	2.83	2.83


Principal
Dyal Singh College
KARNAL