Lesson Plan

Department of Zoology, Basirhat College

Session-2018-2019 (July '18-Dec '18)

For Odd Semesters

Semister- 1st SEM Honours

Lesson Plan for Course: NON-CHORDATES-I..Code: ZOOACOR01T…. Credit: 4….

1. Course coordinator:..**Chinmoy Ghosh**…
2. Course Outcome :
   - i) CO1: Understand the general characteristics of Protists, Parazoa, and Metazoan phyla up to nemathelminthes, and can classify them up to class.
   - ii) CO2: Critically analyse the organisation, special characteristics, and life cycle traits of some selected animals from phylum porifera to nemathelminthes.
   - iii) CO3: Understand the evolutionary significance of symmetry, segmentation of Metazoa and parasitism in helminths.
   - iv) CO4: Able to appreciate the importance of conservation through the study of formation and degradation of coral reefs around the world.
   - v) CO5: Can identify organisms of the above-mentioned taxa by inspecting through microscope or naked eye.

Course planner

Month	Course Topic	Teacher	Class-hour	Remarks*
July	**Unit 1: Protista, Parazoa and Metazoa**	**Chinmoy Ghosh**		
	General characteristics and Classification up to classes		4	Theoretical, Green board,
	Study of *Euglena*, *Amoeba* and *Paramoecium*		3	Theoretical, Green board, specimen identification via microscope
Aug	Life cycle and pathogenicity of *Giardia intestinalis*, *Leishmania donovani*, *Entamoeba histolytica* and *Plasmodium vivax*		3	Theoretical, Green board, provide Notes
	Locomotion and Reproduction in Protista		2	Theoretical, Green board,
	Evolution of symmetry and segmentation of Metazoa		1	Theoretical, Green board,
	Unit 2: Porifera	**Chinmoy Ghosh**		
	General characteristics and Classification up to classes		2	Theoretical, Green board,

	Canal system and spicules in sponges		2	Theoretical, Green board,
Sept	**Unit 3: Cnidaria**	**Rajashree Mallick**		
	General characteristics and Classification up to classes		2	Theoretical, Green board
	Metagenesis in *Obelia*		3	Theoretical, Green board,
	Polymorphism in Cnidaria		3	Theoretical, Green board,
	Corals and coral reefs: types, formation, distribution, conservation significance		3	Theoretical, Green board,
	Unit 4: Ctenophora	**Arpita Mondal**		
	General characteristics		3	Theoretical, Green board, provide notes
	Mid-Term Internal exam			
Oct	**Class Test**		1	10 marks question
	Mid-Term examination			
	Puja Vacation- 15th oct to 11th Nov			
Nov	**Unit 5: Platyhelminthes**	**Chinmoy Ghosh**		
	General characteristics and Classification up to classes		3	Theoretical, Green board
	Life cycle and pathogenicity of *Fasciola hepatica* and *Taenia solium*		4	Theoretical, Green board
Dec	**Unit 6: Nemathelminthes**	**Subharaj Paul**		

	General characteristics and Classification up to classes		2	Theoretical, Green board, provide notes
	Life cycle, and pathogenicity of *Ascaris lumbricoides, Ancylostoma duodenale and Wuchereria bancrofti*		2	Theoretical, Green board, use of charts
	Parasitic adaptations in helminths		2	Theoretical, Green board, provide notes
	Origin and evolution of parasitic helminthes		2	Theoretical, Green board, provide notes
	End-term examinations			
		Class hours	**Total- 48 hours**	

Resources :

1. Books: Invertebrate Zoology (Jordan -Verma), Biology Of Non-Chordates (Fatik Baran Mondal), Non-chordate-I(Niranjan Routray)

2. Other resources : Youtube animation links, Wikipedia, some ebooks

*Remarks will specify

- The nature of the class-topic (viz. Theoretical, Practical, and Tutorial).
- Methodology of teaching (whether using ICT, engaging students in group discussion, quiz etc. etc.)
- Different modes of assessment. (Please check UGC evaluation reforms)

Lesson Plan for Course:…ECOLOGY…… Code…ZOOACOR02T.. Credit……04…

- Course coordinator:……**Arpita Mondal**……
- Course Outcome
  - ✓ CO1: To understand the ecological term like population , community, ecosystem etc.
  - ✓ CO2: To analyse the mathamatical problems of natality and mortality rate with the net reproductive rate.
  - ✓ CO3: To learn the information about the human disease and their genetical aspects.
  - ✓ CO4: To understand the conservation methods and protection act.

Course planner

Month	Course Topic	Teacher	Class-hour	Remarks*
July	Unit-1: INTRODUCTION TO ECOLOGY. 1. History of ecology 2. Autecology, Synecology. 3. Levels of organization.	AM	02	Theoretical, Green board
	4. Laws of limiting factors 5. The biosphere.	AM	01	Theoretical, Green board, provide notes
	6. Physical factors.	AM	02	Theoretical, Green board
	Unit-2: POPULATION 1. Life tables	AM	02	Theoretical, Green board
Aug	2. Survivorship curves	AM	01	Theoretical, Green board
	3. Exponential and Logistic growth.		01	Theoretical, Green board
	4. r and K strategies Population regulation. 5. Density dependent and independent factors.		02	Theoretical, Green board
	6. An examination held on Unit -1 and Unit-2.		01	Theoretical, Green board

	Unit-3: Community 1. Community characteristics: species diversity, abundance, dominance,richnes s.	RM	02	Theoretical, Green board
Sept	2. Ecotone. 3. Ecological succession start..	AM	02	Theoretical, Green board
	4. Ecological succession and example of it.	AM	03	Theoretical, Green board
	5. An examination held on the topic of Unit-	AM	01	Theoretical, Green board
	Unit-4: Ecosystem 1. Food chains: Detritus and grazing food chain.	CG	02	Theoretical, Green board
	2. Food web, Energy flow through ecosystem.		02	Theoretical, Green board

Oct	3. Food web, Energy flow through the ecosystem.	AM	02	Theoretical, Green board .
	Mid term examination			
	Puja Vacation- 15th oct to 11th Nov			
Nov	4. Ecological pyramids and ecological efficiencies.	AM	03	Theoretical, Green board
	5. An examination is held on the topic of Unit-4.	AM	01	Theoretical, Green board

For CBCS

	Unit-5: Applied Ecology 1. Conservation(Ex-situ and In situ conservation).	SP	03	Theoretical, Green board
Dec	2. Wild life protection act(1972).	AM	04	Theoretical, Green board
	3. An examination is held on the topic of Unit-5	AM	01	
	TOTAL CLASS	AM	38	
END SEM EXAMINATION START				

Resources :

Books: Fundamentals of ECOLOGY (English,Paperback,Dr.P.D.Sharma).

ELEMENTS OF ECOLOGY. (Thomas M. Smith)

Other resources : Internet sources such as Wikipedia.

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- The nature of the class-topic (viz. Theoretical, Practical, and Tutorial).
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