



St. Xavier's College – Autonomous Mumbai

Syllabus For IV Semester Cross Faculty Course in Zoology (November 2012 onwards)

Contents:

Theory Syllabus for Cross Faculty Course:

SPC.4.01 – Secret Lives of Animals (SLA)

S.Y. CROSS FACULTY COURSE

SPC. 4.01

SECRET LIVES OF ANIMALS

Learning Objectives:

- To develop an understanding of evolutionary theories which form the basis of all biological sciences.
- To appreciate the intricacies of the social life of animals.
- To understand how animals adapt to extreme environments.

SECRET LIVES OF ANIMALS

(45 Lectures)

Unit 1: EVOLUTION: A WALK WITH NATURE

15

- Theories on origin of life
- Microevolution and Co-evolution
- Intelligent design
- Darwin's idea of evolution

Unit 2: SOCIAL ANIMALS

15

- Social organization in animals
- Invertebrate animal societies
- Vertebrate animal societies

Unit 3: SURVIVAL STRATEGIES

15

- Life without water
- The hot club
- Cold Lazarus

❖ **REFERENCES**

- The Ancestor's Tale by Richards Dawkins
- What Evolution is by Ernst Mayr
- Evolution by Strickberger
- Environmental Physiology of Animals by Pat Wilmer and Stone Graham
- Life at the Limits by David Wharton
- Unlocking Nature's Secrets by Michael Bright
- Survival Strategies by Raghavendra Gadagkar
- The Wisdom of the Hive by Thomas D Seeley
- Sociobiology by E.O. Wilson
- The Triumph of Sociobiology by John Alcock

➤ **FIRST C.I.A. EVALUATION** **20 Marks**

- Short answer questions.

➤ **SECOND C.I.A. EVALUATION** **20 Marks**

- Assignments/ Essay/ Field trip report

➤ **END SEM** **60 Marks**

❖ **CAPACITY**

40 students (**NB:** If the number exceeds 40, it will not be possible to conduct a field trip.)
