

SEMESTER - III

CPS 2c – Part III - PEDAGOGY OF BIOLOGICAL SCIENCE

Credits: 2

Internal: 20 marks

Hours/Week: Theory-2hrs & Practical- 4hrs

External: 30 marks

Total: 50 marks

Course Learning Outcomes:

At the end of the course, the student-teachers will be able to

- prepare various learning resources to support effective teaching;
- conduct Action Research and disseminate the results;
- arrange various tasks to be executed during field immersion;
- prepare reflective journals on observation of peer teaching;
- prepare reflective journals on co-teaching with mentors;
- design lesson plans in Biological Science;
- prepare teaching learning materials to facilitate teaching in Biological Science;
- acquire skills in teaching competency; and
- prepare reflective journal on School Internship.

Unit I: Learning Resources

Introduction-Botany and Zoology Laboratory-Structure and design-Organization and maintenance of the Biological Science-Laboratory-Maintenance of various Registers- Improvised Apparatus-Science Text book, Qualities of a good Science Text Book- Science Library-Web Based learning-Multimedia, Use of the internet, e-learning, Tele and Video- Conferencing.

Unit II: Action Research

Action Research- Meaning, need for classroom Research- difference between Action Research and Fundamental Research- steps in Action Research- journaling the results of classroom Research.

Unit III: Field Immersion**Tasks of student-teachers during internship:**

- Observation of the teaching of mentor-teachers and peer student-teachers
- Institutional and Individual case study
- Lesson plan, Unit plan and Teaching- Learning Materials
- Question paper and other tools of assessment
- Reflective diary of School Internship
- Co-Scholastic activities
- Teacher as a substitute teacher

Suggested References:

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Arulselvi,E. (2007). *Teaching of Science*. Chennai: Saradha Publication.

Bhandala, Chadha., & Khanna. (1985). *Teaching Of Science*. New Delhi: Prakash Brothers Educational Publishers.

Bhatnagar,A.D. (2004). *Teaching of Science*. Meerut: Surya Publications.

Buffaloe, Neal., & Throneberry, J. B. (1972). *Principles of Biology teaching*. New Delhi: Prentice – Hall of India Limited.

Frost Jenny., & Turner Tony. (2005). *Learning to teach Science in Secondary school*.New York: Routledge Palmer Publication.

Garrett. (1979). *Statistics in Psychology and Education*. Bombay: Vakils, Feffer and Simons Ltd.

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Khana, S.D,et al. (1976). *Technology of science teaching*. New Delhi: Doaba House.Natrajan, C. (1997). *Activity based foundation course on science technology and society*.Mumbai: omi Bhaba Centre for Science Education.

Korde., & Sawant.(1980). *Science and Scientific Method*. New Delhi: Himalaya Publishing House.

Passi, B. K. (1976). *Becoming a Better Teacher: Micro teaching approach*. Ahemedabad: Sahitya Mudranalaya.

Prasad Janardhan. (1999). *Practical aspects in Teaching of Science*. New Delhi: Kanishka Publication.

Sharma, Jagdish. (2006). *Models of Teaching Science*. Jaipur: Raj Publishing House.

Veena Rani Pandey. (2004). *Major Issues in Science Teaching*. Summit Enterprises.

வேணு கோபால்.கோ. நாகராஜன் (2012). உயிரியல் கற்பித்தல், சென்னை: இரா.உமாயாஸ்கரன்.(2007). உயிரியல் கற்பித்தல், சென்னை: சாரதாபதிப்பகம்.

கே.ஆர்.திருவேங்கடசாமி. (2007). உயிர் வாழ்வதும் உயிரிவேதியியலும். சென்னை: கௌரா ஏஜென்ஸிஸ்.

கே.ராஜம்மாள். (2005). உயிரியல் கற்பிக்கும் முறைகள், சென்னை: சாந்தா பதிப்பகம்.

மா.மலர்விழி, மா.உமாமகேஸ்வரி. (2008). உயிரியல் கற்பித்தல். மதுரை: மாநிலா பப்ளிஸர்ஸ்.
