

## ISB 121 METHODS AND ASSESSMENT IN INTERGRATED SCIENCE – 3 CREDITS

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### **SCHEME OF WORK – SECOND SEMESTER**

#### **Course objectives:**

When you have learnt the material in this course you would be able to:

1. Distinguish between behaviorists and constructivists learning theories
2. Apply the learning theories to teaching science at the basic school level
3. Distinguish between appropriate and inappropriate classroom assessment
4. Plan instruction integrated with assessment for learning

Science processes and science products- What are they?

Use of technology to help science teaching and learning

### **LEARNING THEORIES**

Behaviorist approach to learning:

B. F. Skinner

- Operant conditioning
- Contingent reinforcement
- Behavioral shaping

B. Bloom

- Mastery learning
- Clear objectives, performance standards, teaching, testing, re-teaching, re-testing

#### **Constructivist approach to learning**

Piaget and stages of mental development

- Sensorimotor
- Pre-operational
- Concrete operational
- Formal operational

Ausubel and meaningful reception learning

- Advance organizers
- Linking the new to the familiar
- Teaching for the transfer of knowledge