Biology Exam Syllabus

Grades 9-10

1. **Scientific Practices in Biology**
   - Investigable biological questions
   - Variables and controls
   - Observation and measurement
   - Biological data tables and graphs
   - Interpreting patterns and anomalies
   - Models in biology
   - Claim-evidence-reasoning
   - Method evaluation, safety, uncertainty, and limitations
   - Ethical and responsible treatment of living materials where appropriate

2. **Cell Biology and Life Processes**
   - Cell structure
   - Specialised cells
   - Movement of substances
   - Enzymes
   - Photosynthesis
   - Cellular respiration
   - Organisation in living things
   - Structure and function relationships
   - Energy and matter in living systems

3. **Genetics and Inheritance**
   - DNA and genes
   - Chromosomes
   - Mitosis and meiosis at an introductory level
   - Inheritance of traits
   - Variation
   - Mutation
   - Basic Mendelian reasoning
   - Genetic information in context
   - Genetic models and probability where appropriate

4. **Ecology and Matter-Energy Relationships**
   - Ecosystem interactions
   - Food webs
   - Energy flow
   - Cycling of matter
   - Population change
   - Biodiversity
   - Human impact on ecosystems
   - Sustainability in biology contexts
   - Ecosystem stability and disturbance

5. **Evolution, Classification, and Diversity**
   - Adaptation
   - Natural selection
   - Evidence for evolution
   - Classification systems
   - Biodiversity
   - Common ancestry at an introductory level
   - Evolutionary change over time
   - Relationships among organisms