

## Syllabus

BIO 112 – General Biology II (Credit Units: 3)

Department of Biological Sciences

Faculty of Sciences, University of Delta, Agbor, Nigeria

**Lecturers:** Dr (Mrs) J.E. Konyeme, Dr (Mrs) E.O. Oduma, Dr (Mrs) P. Chijindu, Dr T.E Konyeme, Dr U.A. Akporobaro, Mrs. P.C. Okubor, Mrs. J. Obiagwe, Mr. F.O. Anigboro, Mr. K.E. Utebor

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**Office Hours:** Monday: 10 – 2pm, Wednesday 9-12pm and Fridays 10-2pm. You can reach any of the lecturers teaching this course immediately after classes. You are always welcomed to ask questions during or after classes. You can also communicate with your lecturer through the general WhatsApp platform for Biology 112 and 118. If you are not yet on the platform you can reach out to your class representatives

**Meeting Time and Place:** Monday 12- 2:00pm and Wednesdays 9-10am, 1000 capacity Hall,

**Attendance:** Attendance is mandatory. You are expected to attend every class. If you must miss a class, class, you must please notify your lecturer and class representative in advance.

**Methods of Instruction:** This syllabus contains an overview of what will be covered in class.

**Overview:** General biology II, explores the diversity of living things. It will focus on the characteristics of different classes of living things, their adaptations and physiological processes. Living things will be studied from the simplest to complex forms. This course will enable the student to have a basic knowledge of the virus, monera, fungi, protists, algae, plants and animals in order to recognize their role in the ecosystem. Their physiology will also be treated. The knowledge obtained from this course may serve as a foundation to other courses at higher level. This course will be executed using lectures, assignments, tests and quizzes.

**Objective:** To enable students (i) List the identifying features of viruses, bacteria, fungi and protists; (ii) state the unique characteristics of plant and animal kingdoms; (iii) describe ecological adaptations in the plant kingdoms; (iv) describe ecological adaptations in the animal kingdoms; (v) explain the process of nutrition, respiration, excretion and reproduction in plants and animals (iii) describe growth and development in plants and animals.

**Learning Outcome:** At the end of the lectures, students should be able to: (i) Identify and classify viruses, bacteria, fungi and protists; (ii) state the unique characteristics of plant and animal kingdoms; (iii) describe ecological adaptations in the plant and animal kingdoms; (iv) explain nutrition, respiration, excretion and reproduction in plants and animals; (v) describe growth and development in plants and animals.

**Course Contents:** Systematic studies of diversity of life including monera, protista, plants (Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms and angiosperms) and animals (Protozoa, Platyhelminthes, Annelids, Arthropods, Fishes, Amphibians, Reptiles, Birds and Mammals) based on similarities and

differences in external morphology. Taxonomic divisions of plant and animal kingdoms. Ecological adaptations of these forms and descriptions of their physiology (nutrition, reproduction, circulation, respiration and growth)

**Lecture Schedules Week Content Lecture notes/slides**

<b>Week</b>	<b>Content</b>	<b>Lecture Notes/Slides</b>
1	Introduction (Diversity of plants) Monera, Protista Plants	
2	Virus and Fungi	
3	Animal-like Protist sponges and Coelenterates	
4	Bryophytes	
5	Pteridophytes	
6	Gymnosperms	
7	Angiosperms	
8/9	Platyhelminthes, Nematodes, Annelids, Molluscs and the Echinoderms	
10	Arthropods	
11	Fishes and Amphibians	
12/13	Reptiles, Birds and Mammals	
14	Continuous assessment/Revision	
15	Final Exams	

**Examination schedule**

- Attendance
- Homework
- Class Test
- End of Semester Exam

**Practical Exercises:**

The practical exercises are done in BIO 118 (Lab days Fridays 10am -2pm)

**Grading**

Attendance: 5% of grade

Homework: 5% of grade

Midterm Exam: 20% of grade

Final Exam: 70% of grade

**Text and References**

Bryophyte: Annotated Classification Encyclopedia Britannica. Retrieved 04-07-2020.

Grolle evidence for reclassification among the mosses. *Journal of the Hattori Botanical Laboratory*, **73**: 263-271.

Hickman Jr, C.P., Roberts, L.S., Keen, S.L., Larson A., I'Anson, L., Eisenhour, D.J. (2008). *Integrated Principles of Zoology* 14<sup>th</sup> ed. McGraw-Hill International, pp906.

Jordan E.L. and Verma P.S. (2002) *Chordate Zoology*. S Chand and Company Limited, Ran Nagar, New Delhi, pp1093

Jordan E.L. and Verma P.S. (2002) *Invertebrate Zoology*. S Chand and Company Limited, Ran Nagar, New Delhi, pp1093

Smith, D. K. and Davison, P. G. (1993). Antheridia and sporophyte in *Takakia ceratophylla* (Mitt).

Smith, A. J. E. (2004). The Moss flora of Britain and Ireland, 2nd Edition.

Vitt, D. H. (2012). A comparative study of Bryophyte. *Journal of New Zealand Botany*, 18(3): 367 – 377.

### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behaviour conducive to a positive learning environment. The code of student conduct is described in detail in the student handbook or University website.

Academic Honesty "All students enrolled at the University shall follow the tenets of common decency and acceptable behaviour conducive to a positive learning environment." It is the policy of the University, that no form of plagiarism or cheating will be tolerated. Plagiarism is defined as the deliberate use of another's work and claiming it as one's own. This means ideas as well as text or code, whether paraphrased or presented verbatim (word-for-word). Cheating is defined as obtaining unauthorised assistance on any assignment. Proper citation of sources must always be utilised thoroughly and accurately. If you are caught sharing or using other people's work in this class, you will receive a 0 grade and a warning on the first instance. A subsequent instance will result in receiving an F grade for the course, and possible disciplinary proceedings. If you are unclear about what constitutes academic dishonesty, ask.