University of Ghana  
Department of Botany  
Sample Spring Courses

**BOTN 312  Whole Plant Physiology**  
Treatment of biophysical concepts: plant water relations; absorption of water; transpiration; stoma-tal physiology; ion uptake; transport systems in plants; survey of phytohormones; brief coverage of dormancy, germination and growth, flowering and fruiting.

**BOTN 314  Taxonomy and Evolution of Seed Plants**  
Comparative morphology and/or evolutionary trends in seed plants, with special reference to common seed plant families in Ghana. Basic principles of taxonomy to include classification, nomenclature and identification.

**BIOL 316  Environmental Zones of West Africa**  

**BIOL 318  Aquatic Biology (Oceanography & Limnology)**  

**BOTN 412  Bryophytes and Pteridophytes**  

**BOTN 414  Economic Botany**  
The origins, distribution and ecology (botany and cultivation) of crop plants in Ghana. Ethnobotany. The elements of silviculture and forest utilization in Ghana (timber, fuel etc.)
BOTN 416  Physiology of Fungi
This course is designed as a sequel to course Botn 411 to relate the functioning of the fungus to its structure. The course, therefore, covers the function of the fungus spore, growth and metabolism of the vegetative thallus and the physiology of reproduction. Discussions at relevant places of the course will include associations of fungi with other organisms other than parasitism. Attention will also be drawn to the involvement of fungi in agriculture, industry and human welfare.

BOTN 418  Plant Pathology
This course is designed to give a wide approach to plant diseases caused by parasites (fungi, bacteria, nematodes and flowering plants) and viruses and by nutritional disbalance. Consideration of diseases caused by parasites and viruses will fall into four interrelated phases: aetiology, interaction of plant and pathogen, interactions of populations of plants and pathogens and environment, and control of plant diseases.

BOTN 422  Floral/Reproductive Biology
Types of pollination; pollen and animals; nectar, nectaries and animals. Fertilization and changes in ovary and ovule Isolating mechanisms in flowers; limitations naturally placed on variations in populations. Place of floral biology in plant breeding.

BOTN 424  Biometry

BOTN 426  Production Ecology
The ecosystem concept. Variations of ecosystem structure. Turnover of energy, organic matter, water, mineral nutrients in the ecosystem. Productivity of terrestrial ecosystem; control and measurement of primary and secondary productivity. Ecological mechanisms controlling distribution of plants and animals. Interaction between organisms; interaction between organisms and environment, Floral ecology.

BOTN 428  Molecular Genetics, Plant Breeding and Cytogenetics

BOTN 432  Whole Plant Physiology
Growth, developmental and environmental physiology: dynamics of growth, detailed coverage of flowering and fruiting, regulation of organ longevity, senescence and death; introduction to the effects of light, temperature, water, pollution and climate change on plant growth and development; the physiology of plants under stress; biological clocks.