

# NUTRITIONAL BIOLOGY (NUB)

## Graduate Studies

### NUB 210A – Advanced Nutrition I: Nutrition & Metabolism, Macronutrients (5 units)

*Course Description:* Advanced general nutritional concepts. Integrating nutrition with biological systems, population nutrition issues, and research approaches. Advanced concepts on lipid and protein metabolism.

*Prerequisite(s):* Admission to the Nutritional Biology Graduate Group or consent of instructor.

*Learning Activities:* Lecture 4 hour(s), Discussion 1 hour(s).

*Enrollment Restriction(s):* Limited to 30 students.

*Grade Mode:* Letter.

### NUB 210B – Advanced Nutrition II: Nutrition & Cell Biology, Micronutrients (5 units)

*Course Description:* Effects of nutrients at the cellular level. Principles of cell signaling and signaling modulation by nutrients. Advanced concepts of mineral and vitamin metabolism. Mineral and vitamin deficiencies and associated pathologies.

*Prerequisite(s):* Admission to the Nutritional Biology Graduate Group or consent of instructor.

*Learning Activities:* Lecture 4 hour(s), Discussion 1 hour(s).

*Enrollment Restriction(s):* Limited to 30 students.

*Grade Mode:* Letter.

### NUB 210C – Advanced Nutrition III: Nutrition in Health & Disease (5 units)

*Course Description:* Integration of biochemical, physiological, and genetic aspects of nutrition in the context of clinical and epidemiological observations related to health and disease, including obesity and diabetes, cancer, vascular and neurodegenerative diseases, osteoporosis, and birth defects. Review and consideration of governmental.

*Learning Activities:* Lecture 4 hour(s), Discussion 1 hour(s).

*Grade Mode:* Letter.

### NUB 290C – Research Group Conference (1 unit)

*Course Description:* Weekly conference on research problems, progress and techniques in animal sciences.

*Prerequisite(s):* Graduate standing.

*Learning Activities:* Discussion 1 hour(s).

*Repeat Credit:* May be repeated.

*Grade Mode:* Satisfactory/Unsatisfactory only.

### NUB 298 – Directed Group Study (1-5 units)

*Course Description:* Directed group study.

*Prerequisite(s):* Graduate standing in Nutritional Biology Graduate Group or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 3 time(s) when topics differs and consent of instructor.

*Grade Mode:* Letter.

### NUB 299 – Research (1-12 units)

*Course Description:* Research.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated.

*Grade Mode:* Satisfactory/Unsatisfactory only.