**Multidisciplinary Studies Curriculum and Course Outline**

**Degree:** BA **Major:** MultidisciplinaryStudies  **Concentration:** Horticulture and Business **Major Requirements:** 39 credit hours (plus 9 credit hours of related coursework)

Core 2 (18 credit hours)

Business

Core 1 (19 credit hours)

Horticulture

BUAD 101: Introduction to Business

BUAD 162: Introduction to Managerial Accounting

BUAD 231: Principles of Marketing

BUAD 251: Principles of Management

BUAD 341: Managerial Finance

BUAD 352: Human Resource Management

BIOL 221: Concepts of Botany

BIOL 325: Plant Systematics

BIOL 327: Horticultural Science

BIOL 362: Cell and Developmental Biology

BIOL 375: Biometry

BIOL 472.01: Plants and Society Seminar

BIOL 472.02: Ethnobotany Seminar

Capstone (3 credit hours)

Relative Elective Courses (9 credit hours)

CHEM 112: Introduction to Chemistry II

ECON 101: Principles of Macroeconomics

MATH 151: Calculus for Management, Social & Life Sciences

BIOL 300: Internship in Biological Sciences

**Course Descriptions**

**Core One Descriptions:**

**BIOL 221 Concepts of Botany (G2, L):** Consideration of features unique to plants such as localized meristems and open growth, water relations, photosynthesis, cell structure. An integrated study of plant structure and function using angiosperms as principal examples. Includes brief discussions of plant and fungal diversity, plant ecology and evolution and economic botany.

**BIOL 325 Plant Systematics (G2, L):** A survey of local vascular flora, use of dichotomous keys in identifying plants, distinguishing features of common plant families, principles of plant systematics. Phylogenetic, biosystematics and nomenclatural concepts are considered.

**BIOL 327 Horticultural Science (G2, L):** Principles of horticultural science including regulation of plant growth, propagation and breeding, plant nutrition, pruning, plant diseases and special topics related to individual types of plants. Laboratory includes propagation and handling of plants in the greenhouse and field trips.

**BIOL 362 Cell and Developmental Biology (G2, L, W):** Cell structure and function, including cell ultrastructure, methods used in cell biology research, cell motility, signal transduction, cell division, macromolecules, metabolism and the cytomembrane system. Basic concepts in developmental biology are also covered: fertilization, early embryonic cleavage in model systems, cell-cell communication, extracellular matrix and research methods. Examples from developmental biology are employed to illustrate the functions and roles of cellular structures and processes. Laboratory includes isolation of cell components, fertilization and cleavage in sea urchins, microscopy and other techniques used in the study of cell and developmental biology.

**BIOL 375 Biometry:** Use of statistical techniques in descriptive and experimental biology and the use of mathematical models in describing biological phenomena.

**BIOL 472 Plants and Society Seminar & BIOL 472 Ethnobotany Seminar (1 credit each):** Seminar in Biology Group discussions. General theme to be determined by professor. Offered annually. Prereq: 16 s.h. of biology and courses indicated by the instructor.

**Core Two Descriptions:**

**BUAD 101 Introduction to Business (G3):** Introduction of basic business concepts such as institutional setting, organizational structures, decision making, accounting, finance, labor relations, management, marketing and government-business relations.

**BUAD 162 Introduction to Managerial Accounting**: Problem-oriented introduction to the interpretation and application of accounting information from the viewpoint of management with emphasis on planning and control and long-range strategies.

**BUAD 231 Principles of Marketing**: Explores the role of marketing in the free enterprise system. Defines marketing and its relationship to society. Reviews the controllable elements of the marketing mix: product, place, promotion, and price. Explains marketing concepts and terminology. Applies terminology and concepts to real world problems. Covers basic analytic skills needed to solve marketing problems.

**BUAD 251 Principles of Management (G3, W):** Examines management processes of planning, organizing, leading and controlling and provides basic knowledge of management history, managers’ roles and functions, environment influences, effective decision making, leadership and team management, ethical and social responsibilities, and current trends in management.

**BUAD 341 Managerial Finance (W):** Fundamental topics in corporate finance, including use of financial statements, time value of money, capital budgeting and working capital management. Offered in fall, spring.

**BUAD 352 Human Resource Management**: Survey course familiarizes students with the human resource function. Topics include recruitment, orientation, training, compensation, safety, performance evaluation and labor relations.

**Related Elective Courses:**

**CHEM 112 Introduction to Chemistry II (G2, L):** Continuation of CHEM 111. The interactions of matter and energy-thermodynamics, kinetics and electrochemistry. Equilibria in aqueous systems theory and practice. Coordination chemistry and descriptive chemistry of the elements. Weidner 12

**ECON 101 Principles of Macroeconomics (G3):** Introduction to macroeconomic analysis concentrating on national income, price levels, employment, monetary policy and fiscal policy, with introductory analysis of the global economy. To be successful, it is recommended that students be proficient in algebra (the equivalent of successfully completing MATH 101 or MPT equivalent); however, MATH 101 is not a prerequisite. Offered fall, spring.

**MATH 151 Calculus for the Management, Life and Social Sciences (G2):** Elementary calculus and its applications in business, economics, life and social sciences. Functions, limits and continuity. The derivative, applications in marginal analysis, optimization, differentials and error estimation. Antiderivatives, area under a curve and definite integrals; integration by parts. Exponential and logarithmic functions; applications to growth and decay problems; improper integrals. No credit toward a major or minor in mathematics. Prereq: MATH 101 or equivalent with a grade of C- or higher, or math placement testing/evaluation before registration. Credit will be given for only one of MATH 151, 161 or 163

**Capstone Course:**

**BIOL 300:**  **3-12 s.h.** **Co-Op Ed Experience in Biol**:

Co-Op Ed Experience in Biol