1. Catalog Description:
   This course introduces the basic principles of garment construction applied through the use of commercial patterns. Emphasis is on woven fabrics. Elements of design and its application using the principles of design are covered. Lab is included.

2. Course Content:
   a. Basic principles of clothing construction applied through the use of correct sewing and commercial patterns.
   b. Kinds of fabrics with emphasis on woven ones and common fabric finishes.
   c. Line, color, texture and principles of design as applied to clothing.
   d. The students will work on three (3) sewing projects.

3. Rationale for the Course:
   a. To enable the students to contribute to the improvement and/or maintenance of the wellbeing of individuals, families and communities in Guam, the Western Pacific and the world.
   b. To prepare students to assist family members and others in learning how to make sound decisions related to human, financial and material resources through the application of clothing selection and construction skills.
   c. To prepare students for professional employment and advanced studies in the areas of Consumer and Family Sciences: clothing and textiles, food and nutrition and family resources.

4. Skills and Background Required or Expected:
   a. Students entering this course should have reading, writing, and comprehending basic English language skills.
   b. Students should be familiar with the sewing machine and other sewing tools which they will be using in the laboratory work.

5. Teaching Methodologies and Anticipated class size:
   Lecture, demonstrations, film and transparency showing, and laboratory for the construction of students’ projects.
   The ideal class size is 5 to 15 students.

6. Learning Objectives for Students:
   o As a result of taking this course the learner should be able to demonstrate use of the equipment, tools and supplies for clothing construction, alteration, and repair.
   o As a result of taking this course the learner should be able to identify the common kinds of
fabrics used in clothing construction.

- As a result of taking this course the learner should be able to construct at least one article of clothing.

**Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   Evaluation will include the examinations given, the projects completed, class participation, and the fashion show.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Project Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:
   The required text is *Sewing essentials* by Singer Company.

10. Subsequent Courses:
    The subsequent courses include:
    CF 216 Costumes of the Western World
    CF 220 Pattern Designing
    CF 321 Fashion Design I
    CF 325 Textiles
    CF 329 Social Psychology of Clothing
    CF 351 Consumer Economics
    CF 392 Teaching Assistantship
    CF 420 Fashion Merchandising
    CF 429 Textiles and Apparel in the International Market
    CF 490F Special Projects in Clothing & Textiles
    CF 491F Issues in Clothing & Textiles
    CF 498 Internship in Fashion Merchandising
    CF 499 Directed Readings in Clothing & Textiles

11. Additional Course Descriptors, if any:
    a. Step by step samples for working on the project will be on hand to assist the student in remembering the correct procedure to follow.
    b. Each laboratory session will start with a demonstration on the lesson.
    c. The use of the serger sewing machine and the computerized sewing machine will be demonstrated so students can avail of these machines when needed.
    d. Tips for “painless sewing” will be given from time to time.
    e. Review time and guides will be given before each exam.
    f. A crash course on modeling will be given a day before the fashion show to increase student’s ability to handle themselves before an audience as well as increase their self-confidence. Students will be encouraged to pose and act according to their own preferences thus taking care of their cultural differences and individuality.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
   This course covers the fundamental processes of food preparation as well as the relationship between scientific principles and cooking procedures. Includes three hours of lecture and three hours of lab weekly Prerequisite: MA085 and EN085.

2. Course Content:
   a. Identify the major nutrients that individuals need for the growth, maintenance, and repair of cells, and give examples of foods rich in those nutrients.
   b. Describe the difference between food-borne illness and food-borne intoxication, and list the major contributors to both.
   c. Identify and define the different heat sources for food preparation.
   d. Describe the basic pieces of food preparation equipment and the criteria for the selection of equipment; and demonstrate the basic food preparation concepts such as cutlery techniques, measuring, and mixing techniques, as well as seasoning.
   e. Explain the nutritional contribution of the following foods in the diet; and demonstrate ability to prepare at least one recipe for: fats & oils, vegetables, salads, fruits, sugar, starches, legumes, grains, quick breads, yeast breads, cakes, cookies, pastries, milk & cheese, eggs & foams, meats, poultry & seafood, and beverages.

3. Rationale for the Course:
   This course introduces students to the basic theories and concepts of nutrition and food preparation. This course is designed for students pursuing a degree in consumer and family science or other health field. Lectures provide the theoretical background needed to conduct the laboratory exercises. Safe and appropriate use of food preparation and preservation equipment and appliances is included in the course.

4. Skills and Background Required or Expected:
   Some background in science and math will be helpful in expanding the student’s understanding and will ease his or her grasp of basic principles of food preparation.

5. Teaching Methodologies and Anticipated class size:
   Teaching methods include lecture-discussion, lab assignments, field trips, small group work, collaborative projects and media presentations. Anticipated class size is 12.

6. Learning Objectives for Students:
   o As a result of taking this course the learner should be able to describe the difference between food-borne illness and food-borne intoxication, and list the major contributors to both.
   o As a result of taking this course the learner should be able to demonstrate the basic food
preparation concepts such as cutlery techniques, measuring, and mixing techniques, as well as seasoning.

- As a result of taking this course the learner should be able to explain the nutritional contribution of vegetables; and demonstrate ability to prepare at least one recipe for vegetables.
- As a result of taking this course the learner should be able to explain the nutritional contribution of starches.
- As a result of taking this course the learner should be able to explain the nutritional contribution of meats.

Note: With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   a. 2 to 3 exams plus 1 final exam
   b. 2 reaction papers, 1 abstract, as assigned
   c. 1 oral presentation
   d. Regular attendance
   e. Laboratory experiments
   f. Portfolio
   g. Creative Cookery Project
   h. Others
      - Complete cooking outfit required: apron or lab coat, head cover (hair net cap, scarf, or at least 4 inches wide headband), and 2 pot holders.
      - Regular attendance. Each absence will be counted as one point off your final grade.
      - Papers and other assignments must be turned in on or before the designated date. Any late assignment will have ten points deducted for each week that passes.

   Summary of Course Points:
   a. 3 Exams (3 @ 50 points each)                150
   b. Comprehensive Final Exam                75
   c. Lab Assignments (19 @ 10 points each)   190
   d. Restaurant critiques (3 @ 10 points each)   30
   e. Project                      45
   f. Class attendance & participation        60
   Total                                    550 points

Grade Equivalent
90 -100%         A
80 - 89%          B
70 - 79%          C
60 - 69%          D
59% and below     F

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:


10. Subsequent Courses:
   N/A

11. Additional Course Descriptors, if any:
   N/A

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
College:    College of Natural and Applied Sciences    Course Number:   CF 230
Course Title:    Nutrition and Health           Credit Hours:      3
Date of Final Approval:       Semester Offered:      Fall/Spring
Course counts as:              X general education requirement
                                    X part of      Consumer & Family Sciences    major program
                                    elective

1. Catalog Description:
   This course introduces basic principles of nutrition, including nutrients, food sources for
   nutrients, and the essentials of a good diet. Applied nutrition and the study of nutrition
   problems in health are studied.

2. Course Content:
   A. Basic chemistry, metabolism, action in the body,
   B. Health benefits,
   C. Food sources of each of the energy producing nutrients,
   D. Vitamins and minerals,
   E. Dietary planning, weight control, and life-cycle nutritional needs,
   F. Nutritional analysis of the students’ own diet and keep a folder of assignments as part of the
      course.

3. Rationale for the Course:
   The rationale for the course is to provide students with introductory nutrition principles. This
   course is the foundation for all of the upper division courses offered in the Consumer and
   Family Sciences unit.

4. Skills and Background Required or Expected:
   The student must have good reading skills. There are no prerequisites, but it is helpful if the
   student has had biology, zoology, and/or chemistry.

5. Teaching Methodologies and Anticipated class size:
   Lectures, films and small group exercises. Work assigned to be completed outside of class will
   supplement learning. The assignments include: a dietary analysis project, report on current
   nutrition article, and student portfolio with self evaluation.

6. Learning Objectives for Students:
   o As a result of taking this course the learner should be able to identify the major nutrients
     that individuals need for the growth, maintenance, and repair of cells, and give examples of
     foods rich in those nutrients.
   o As a result of taking this course the learner should be able to calculate energy expenditure
     in calories per day for an individual given their height, weight and activity level.
   o As a result of taking this course the learner should be able to identify the four sources of
     food energy for the human body and explain how energy balance is maintained.
   o As a result of taking this course the learner should be able to describe an individual’s
     nutritional needs at various stages of the life cycle.
Note: With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   The methods of evaluation are written exams, journal reports, dietary analysis project, a semester folder, and participation and attendance.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:

10. Subsequent Courses:
    There are several courses that build on the concepts presented in CF 230; These courses are as follows:
    
    CF 339    Community Nutrition
    CF 342    Food Safety and Sanitation
    CF 430    Nutrition Throughout the Lifespan
    CF 435    Sports Nutrition
    CF 490    Special Projects in Consumer and Family Sciences
    CF 491    Issues in Consumer and Family Sciences
    CF 498    Internship in Consumer and Family Sciences

11. Additional Course Descriptors, if any:
    This course is intended for students with a personal interest in nutrition as well as those students who plan careers in teaching, health promotion, social work and consumer and family sciences.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
   This course examines the relationship between nutrition and disease. The action of nutrients in the body, methods of nutritional assessment, and nutrient content of different foods are discussed. Emphasis is placed on diets appropriate for individuals who already have a disease.

2. Course Content:
   A. The relationships of nutrients during the course of disease.
   B. Overview of the digestion, absorption and metabolism of the nutrients in foods and nutrition in the life cycle and diet therapy.
   C. Nutrition assessment and nutritional care in disease.

3. Rationale for the Course:
   The course will provide health professionals with a nutrition background that gives basic working knowledge of the role of nutrition in human health and disease. The focus of the course will be more clinical than the Nutrition and Health course.

4. Skills and Background Required or Expected:
   There are no prerequisites for this course, but it is helpful if the student has had courses in chemistry, anatomy and physiology.

5. Teaching Methodologies and Anticipated class size:
   This course is taught using lectures, films and small group exercises.

6. Learning Objectives for Students:
   ° As a result of taking this course the learner should be able to identify the major nutrients that individuals need for the growth, maintenance, and repair of cells, and give examples of foods rich in those nutrients.
   ° As a result of taking this course the learner should be able to explain the primary functions and list the major food sources for: carbohydrates, proteins, fats, water, water-soluble vitamins, fat-soluble vitamins, macro-minerals, and trace minerals.
   ° As a result of taking this course the learner should be able to describe the components to consider when planning long-term dietary interventions for various health/disease conditions.
   ° As a result of taking this course the learner should be able to explain the ways in which diet contributes to prevention and management of various disease states, including: heart disease, hypertension, diabetes, gout, cancer, obesity, kidney disease, and liver disease.
Note: With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   Methods of evaluation consist of case studies, diet analysis project, oral presentation and written tests.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:

10. Subsequent Courses:
    There are several courses that build on the concepts presented in CF 231. These courses are as follows:
    
    CF 339 Community Nutrition
    CF 342 Food Safety and Sanitation
    CF 430 Nutrition Throughout the Lifespan
    CF 435 Sports Nutrition
    CF 490 Special Projects in Consumer and Family Sciences
    CF 491 Issues in Consumer and Family Sciences
    CF 498 Internship in Consumer and Family Sciences

11. Additional Course Descriptors, if any:
    This course is intended to replace CF 230 for nursing students. Other students who are interested in health professions such as medicine and dietetics would also benefit from this course.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
This course presents an overview of methods for practitioners' use to help prevent problems experienced by youth such as drug and alcohol abuse, teen pregnancy, sexually transmitted disease, suicide and school drop out. The approach to prevention includes the application of principles from human development, sociology, psychology, social work and education. Individual, family, school and community factors are considered to assess current issues for program development in Micronesia and Guam. Prerequisite: PY101 or SO101 or consent of instructor.

2. Course Content:
   a. At Risk - Definition;
   b. Elements of Youth at Risk;
   c. Drug and Alcohol Abuse;
   d. Dysfunctional Families;
   e. Low Self Esteem;
   f. Teen Pregnancy AIDS and Sexually Transmitted Disease;
   g. Suicide;
   h. Gangs;
   i. School Drop Outs;
   j. Risk and Preventive Factors;
   k. Individual, Peer, Family, School and Community;
   l. Effective Programs: Characteristics, Target Audiences, Methodology, Results and Evaluation.

3. Rationale for the Course:
Professionals who currently work with youth have requested in-service training in the prevention of the problems experienced by youth. Pre-professional training of students will reduce the need for extensive in service training later. Students going into careers working with youth need to know this information in order to assist in establishing effective programs for youth at risk for future problems.

4. Skills and Background Required or Expected:
Prerequisite PY101 or SO101 or consent of instructor. Students should have good reading comprehension, writing skills and an interest in youth and youth problems.

5. Teaching Methodologies and Anticipated class size:
Teaching methodologies will include lecture, small group activities, as well as group-discussions of outside readings, reaction papers and short case studies. The anticipated class
size is twenty-five.

6. Learning Objectives for Students:
   o As a result of taking this course the learner should able to define the term “Youth at Risk” and identify causal factors that contribute to risk behaviors.
   o As a result of taking this course the learner should be able to distinguish and understand the differences between intervention, prevention and crisis management for youth at risk.
   o As a result of taking this course the learner should be able to explore the consequences of risk behavior/factors contributing to individuals, families and community dysfunctions.
   o As a result of taking this course the learner should be able to learn, understand, and apply the use of “Logic Model” in program development for youth at risk.
   o As a result of taking this course the learner should be able to explain the “Experiential Learning Model” and develop a youth at risk program that is developmentally appropriate for age group.

   **Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   Methods of evaluation will include written tests, reaction papers, a short case study, program assessment and participation in small group activities.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:

   Also, selected readings from applicable journal articles.

10. Subsequent Courses:
    N/A.

11. Additional Course Descriptors, if any:
    This course would be appropriate for education, psychology, sociology, criminal justice, and social work majors, as well as for consumer and family sciences majors. It might be of interest for P.E. or nursing majors if the students anticipate working with a youth audience.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
   This course examines the influences of historic designs in housing and furnishing upon today's culture, customs, and styles. Today's home and its furnishings from the standpoint of comfort, beauty, convenience, economy, lifestyle, and cultural influences are examined.

2. Course Content:
   The course study includes the elements and principles of design as it is applied in interiors, changes in housing and furnishings as they are influenced by culture, customs, and styles; period furniture; and proper treatment of backgrounds - walls, ceilings, floors, windows. A practicum on how to execute one’s plan for a particular room will be the culminating activity of the study.

3. Rationale for the Course:
   Interior design is an important course for the fulfillment of the Home Economics program objectives are:
   A. to enable the students to contribute to the improvement and/or maintenance of the well being of the individuals, families, and communities in Guam, the Western Pacific, and the world;
   B. to prepare students to assist family members and others in learning how to make sound decisions related to human, financial, and material resources with regards to interior designing;
   C. to prepare students for professional employment and advanced studies in the areas of Home Economics or other related disciplines.

4. Skills and Background Required or Expected:
   Since it is an entrance course in the area of interior design no particular knowledge or skills are expected.

5. Teaching Methodologies and Anticipated class size:
   Among the teaching methodologies to be used are lecture, reports, discussion, field trip and practicum.
   The class size can be any number from 15 to 20.

6. Learning Objectives for Students:
   o As a result of taking this course the learner should be able to evaluate the use of housing and interior furnishings and products in meeting specific design and family needs.
   o As a result of taking this course the learner should be able to demonstrate space planning skills required for the housing, interiors, and furnishing industry.
As a result of taking this course the learner should be able to demonstrate design ideas through visual presentation and practicum.
As a result of taking this course the learner should be able to analyze influences on architectural and furniture design and development.

**Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   Students will be evaluated on their quizzes, exams, class participation, class presentations, group work, lab work habits, projects, assignments, and practicum.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:
   None at present that will include all the basics of interior design for beginner.

10. Subsequent Courses:
   None to date.

11. Additional Course Descriptors, if any:
   Teaching methods take into account the multicultural reality of the university.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
This course studies fiber, yarn, fabric structures, and finishes as these relate to personal, household, and industrial uses. The properties of natural and man-made textiles, the process of yarn construction and textile manufacture, and consumer information are covered. Three hours of lecture and three hours of laboratory are held weekly.

2. Course Content:
   A. Introduction: What are Textiles?
   B. The Properties of Textile Fibers
   C. Consumer Usage and Government Regulations of Textiles Products
   D. Natural Fibers
   E. Man-made Fibers
   F. Yarn Construction and Classification
   G. Fabric Construction
   H. Finishes on Textiles
   I. Dyeing and Printing
   J. Care of Textiles Products

3. Rationale for the Course:
   A. To enable the student to contribute to the improvement and/or maintenance of the wellbeing of individuals and families in Guam, the Western pacific, and the world.
   B. To prepare students to assist family members and others in learning how to make sound decisions related to environmental protection, and human, financial, and material resources.
   C. To prepare students for professional employment and advanced studies in fashion merchandising.

4. Skills and Background Required or Expected:
The student’s entering background should include:
   basic knowledge of English terms for textiles and their properties;
   basic knowledge of the process in which government regulations become binding and legal in the United States of America.
   The student’s entering skills must include the ability to:
   read and understand labels written in English;
   conduct simple experiments in a label;
   synthesize and classify physical and chemical information;
   summarize the contents of written reports.

5. Teaching Methodologies and Anticipated class size:
The teaching methodologies will include lectures, slide lectures, short videos, powerpoint and other modern technology. In addition, rudimentary lab experiments on textiles will be conducted by the students under the supervision of the instructor and/or a teaching assistant. The class size should range from five to twenty students.

6. Learning Objectives for Students:
   o As a result of taking this course the learner should be able to select appropriate terminology for identifying, comparing, and analyzing the most common generic textiles fibers.
   o As a result of taking this course the learner should be able to determine performance characteristics of fiber and textiles.
   o As a result of taking this course the learner should be able to select appropriate procedures for care of textiles products.
   o As a result of taking this course the learner should be able to describe the ways in which fabric, texture, and pattern can affect visual appearance.
   o As a result of taking this course, the learner will be able to describe and identify the environmental impact of the textile industry.

   Note: With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   Methods of evaluation are three examinations, class participation, and lab reports of regularly scheduled lab activities.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:

10. Subsequent Courses:
   Courses which follow appropriately from this one in the same discipline are:
   CF 315       Interior Design
   CF 321       Fashion Design
   CF 351       Consumer Economics
   CF 329       Social Psychology of Clothing
   CF 392       Teaching Assistantship
   CF 420       Fashion Merchandising
   CF 429       Textiles and Apparel in the International Market
   CF 490F      Special Projects in Clothing and Textiles
   CF 491F      Issues in Clothing and Textiles
   CF 498F      Internship in Fashion Merchandising
   CF 499       Directed Readings in Clothing and Textiles

11. Additional Course Descriptors, if any:
   Leading questions will include:
       What are textiles?
       Why are textiles important?
What kinds of textiles are available to consumers on Guam?
How do textiles affect the quality of life for people on Guam and the Western Pacific?
What is the role of the United States government in controlling both quality and fraud in textile and apparel manufacturing and merchandising?
What is the role of the United States government in protecting consumers regarding textiles and apparel?

Investigations for the students will include:
- What are the identifiable properties of specific fibers?
- How do natural and synthetic textiles differ?
- How are yarns constructed and classified?
- How are fabrics constructed and classified?
- What are fabric finishes, including coloring?
- What textiles are appropriate for use on Guam?

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
This course integrates concepts of education and nutrition. It is designed for the student who wants a broad-based understanding of the strategies that can be used to educate groups or individuals about concepts of nutrition. Prerequisites: CF230, or CF231 and ED300 or consent of instructor.

2. Course Content:
The materials, methods and programs that are appropriate for nutrition education are explored in this course. This course is designed to prepare the student to recognize sources of valid nutrition information; to locate appropriate nutrition resources that are currently available, both locally, nationally and internationally; and to develop factually correct as well as appropriate nutrition education materials for use in different educational settings and with a variety of target audiences.

3. Rationale for the Course:
The rationale for this course is to develop student’s critical thinking and writing abilities in the use of nutrition education materials. This course extends the concepts introduced in CF 230 Nutrition and Health.

4. Skills and Background Required or Expected:
Prerequisites for CF 339 are CF 230 or CF 231, and ED 300 or consent of instructor. Students should have good reading skill and be willing to work in groups.

5. Teaching Methodologies and Anticipated class size:
Class size will be limited to 15 in order for students to have many opportunities for oral presentation. This course will include individual, group and cooperative learning methods. Classes will consist of lectures, group discussions, outside readings, small group activities, oral presentations and written assignments.

6. Learning Objectives for Students:
- As a result of taking this course the learner should be able to define community nutrition, discuss its complexity and enumerate the steps involved in producing community nutrition programs.
- As a result of taking this course the learner should be able to discuss the nutritional status of the U.S. population, as well as the various national guidelines that have been developed to address health-related issues.
- As a result of taking this course the learner should be able to describe nutrition education strategies with regards to a variety of target audiences, e.g., women with infants, school-aged children, adults, elderly, primary/group care, high-risk groups.
As a result of taking this course the learner should be able to develop and demonstrate effective oral and written techniques for conveying nutrition information.

As a result of taking this course the learner should be able to describe the entire community nutrition process and identify who should be involved at each step of the process.

**Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   Methods of evaluation consist of written tests, assignments and student portfolios. These components are weighted as follows: tests 50%; assignments 45%; portfolio 5%.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required Texts:

10. Subsequent Courses:
    There are several courses that build on the concepts presented in CF 339. These courses are as follows:
    - CF 342 Food Safety and Sanitation
    - CF 430 Nutrition Throughout the Lifespan
    - CF 435 Sports Nutrition
    - CF 490 Special Projects in Consumer and Family Sciences
    - CF 491 Issues in Consumer and Family Sciences
    - CF 498 Internship in Consumer and Family Science

11. Additional Course Descriptors, if any:
    This course will also serve as a language development course. The language skills to be emphasized are verbal and written communication. There will be substantial writing component to this course.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
   The factors underlying food borne illness are studied. Causative agents and the reasons for their presence and multiplication in foods are identified. Food safety and sanitation practices are fully examined. Prerequisites: BI157-157L and BI158-158L, or BI124-124L and BI125-125L or consent of instructor. BI225 is recommended.

2. Course Content:
   a. Sanitation and Health
   b. Serving Sanitary Food
   c. The Sanitary and Safe Food Environment
   d. Managing a Sanitary and Safe Food Service

   The following six general topics will be covered and discussed in the Foodborne Disease Control studies: 1) Foodservice sanitation and the microworld; 2) Contamination and foodborne illness; 3) Safe foodhandling from receipt to service; 4) Cleanliness and sanitation; 5) Pest control and safety management; 6) Sanitation management

3. Rationale for the Course:
   In general, foodborne disease control course will promote safe food handling and storage throughout the semester and after the successful completion of the course.

4. Skills and Background Required or Expected:
   Prerequisites: CF 230, BI 101a, b or consent of instructor. BI 225 is strongly recommended.

5. Teaching Methodologies and Anticipated class size:
   Lecture, Discussion, Reading assignments, Audio-visual aides, Reports, Fieldwork and Observation and Small Group Activities. Anticipated class is size 20 (max cap of 25).

6. Learning Objectives for Students:
   o Identify foodborne hazards;
   o Control risk factors to prevent foodborne illness;
   o Apply proper food handling procedures;
   o Define the HACCP system as a food protection tool in food establishments;
   o Operate cleaning and sanitizing;
   o Design food safety programs in food establishments;
   o Recognize the importance of facilities, environmental sanitation, and crisis management;
   o Educate food safety to others; and
   o Recognize the role of Government and food industry in food safety.
Note: With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation
   Quizzes
   Exam
   Reports
   Fieldwork
   Small Group Work
   Activity participation & observation
   Class participation
   Attendance

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:

10. Subsequent Courses:
    None.

11. Additional Course Descriptors, if any:
    Providing safe food.
    Promote assurance in food service.
    Practice purchasing and receiving safe food and storing food safely.
    Protecting food in preparation and service.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
The nutritional requirements and food needs of three different life span stages are examined. The stages include: (1) pregnancy and infancy, (2) early childhood and adolescence, and (3) adulthood and aging. Emphasis is placed on the special demands the various lifecycle stages impose on normal nutrition. Prerequisite: CF230 or CF231 or, consent of instructor.

2. Course Content:
Nutritional requirements during the major lifespan phases will be considered. Nutritional needs during pregnancy, lactation, and infancy for growth, development and maintenance will be studied including the use of growth charts in monitoring nutritional status, examination of different types of infant formulas, composition of breast milk and parent-child interactions. Childhood and adolescence study will include introduction of foods and feeding techniques for children, development of feeding behaviors, and rapid growth requirements during adolescence, feeding abnormalities such as anorexia, bulimia, obesity, and peer influences. Also, the nutritional needs of adults and needs during aging, chronic disease states and social and economic factors affecting nutritional status of the elderly will be examined.

3. Rationale for the Course:
This course extends the concepts introduced in CF 230 Nutrition and Health. The particular challenges on good nutrition imposed by the different life cycle stages are addressed. The student who plans to contribute to the improvement and/or maintenance of the well-being of individuals, families and communities and to prepare for professional employment and advanced studies in the areas of Consumer and Family Sciences or other related disciplines will benefit.

4. Skills and Background Required or Expected:
Upper division standing, prerequisite CF 230 or CF 231. Good reading and writing skills. Students will be assigned a computerized analysis project thus experience with a computer will be helpful, but not essential.

5. Teaching Methodologies and Anticipated class size:
Class size is 25. This course will include individual, group and cooperative learning methods. Classes will consist of lecture, group discussions, outside readings, small group activities, and a computer assisted diet analysis project.

6. Learning Objectives for Students:
- As a result of taking this course the learner should be able to apply practical use of nutritional requirements during the life cycle stages into effective
strategies/recommendations for individuals

- As a result of taking this course the learner should be able to describe physiological changes affecting nutrient utilization during pregnancy, infancy, childhood, adolescence and aging.
- As a result of taking this course the learner should be able to describe the growing problem of obesity and chronic diseases; identify factors contributing to the prevention and treatment of these health conditions.
- As a result of taking this course the learner should be able to recommend appropriate dietary interventions for the most common problems arising in pregnancy, infancy, childhood, adolescence, and adulthood.
- As a result of taking this course the learner should be able to describe age-associated physiological system changes and their impact on nutritional health; then using the MyPyramid food guide, recommend dietary modifications for adults who wish to decrease their risk of chronic disease.

**Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation

Methods of evaluation consist of written tests, assignments and student portfolio. These components are weighted as follows: tests, 50%; assignments, 45%; portfolio 5%.

8. Methods for Student Learning Outcomes Assessment:

Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:


10. Subsequent Courses:

Other courses that relate to CF 430 are as follows:
- CF 339 Community Nutrition
- CF 342 Food Safety and Sanitation
- CF 435 Sports Nutrition
- CF 490 Special Projects in Consumer and Family Sciences
- CF 491 Issues in Consumer and Family Sciences
- CF 498 Internship in Consumer and Family Sciences

11. Additional Course Descriptors, if any:

This course would be appropriate for nursing, education, social work and anthropology majors in addition to consumer and family science majors.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:

   This course focuses on nutrition for active people engaged in exercise for sport performance, recreation, or health and fitness. Nutritional needs for strength and endurance training, low body weight, team sports, vegetarian, children, adolescents, and adult athletes will be discussed. Prerequisite BI157-157L and BI158-158L, or BI124-124L, and BI125-125L, with grade of C or better; CH101; and CF230 or CF231.

2. Course Content:

   - Human energy systems & energy balance
   - Energy stores and fuels used during physical activity
   - Carbohydrate metabolism and glycogen loading
   - Protein for performance
   - Fat metabolism and physical activity
   - Caffeine, alcohol, and ergogenic aids
   - Role of vitamins & minerals in physical activity
   - Hydration & fluid replacements
   - Eating disorders
   - Body composition and obesity
   - Weight loss & weight gain
   - Dietary supplements

3. Rationale for the Course:

   This course is designed to provide the student with an understanding of how nutrition impacts performance in sports, and other physical activities. This course extends the concepts introduced in CF 230 Nutrition and Health.

4. Skills and Background Required or Expected:

   Prerequisites for CF 435 are: BI 157-1 57L and BI 158-158L or BI 124-124L and BI 125-125L, with grade of C or better; and CF230 or CF 231. The material will be taught with the understanding that students have a good grasp of fundamental principles of human physiology and nutrition.

5. Teaching Methodologies and Anticipated class size:

   Class size is 25. This course will include individual, group and cooperative learning methods. Classes will consist of lectures, group discussions, outside readings, oral presentations, case studies, and other written assignments.

6. Learning Objectives for Students:
As a result of taking this course the learner should be able to describe human fuel utilization at rest and during physical activity.

As a result of taking this course the learner should be able to calculate energy expenditure and energy intake to meet energy balance for physically active people.

As a result of taking this course the learner should be able to explain the rationale and provide practical strategies for maintaining optimal hydration for physical activity and sports performance.

As a result of taking this course the learner should be able to suggest eating strategies for pre-exercise, recovery nutrition, eating while traveling, and eating on competitive days.

As a result of taking this course the learner should be able to describe special nutritional needs of physically active children, adolescents, and vegetarians.

**Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation:
   Methods of evaluation consist of written tests and assignments. These components are weighted as follows: tests, 50%; assignments, 50%.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:

10. Subsequent Courses:
   None

11. Additional Course Descriptors, if any:
   None.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
1. Catalog Description:
   This course covers the chemical properties of food constituents and effects of food components and ingredients on food quality and nutrition after harvest and during processing and storage. Three hours of lecture and 3 hours of laboratory are held weekly. Prerequisite: BI157/157L and BI158/158L or CH102/102L and CH103/103L.

2. Course Content:
   - Water in foods; activity, effect on food stability
   - Minerals in foods and ash content
   - Carbohydrates — monosaccharides, polysaccharides, alternative sweeteners, fiber, emulsions, foams, gels, sols, and gums
   - Proteins in foods
   - Lipids in foods; fat replacers
   - Antioxidants
   - Enzymes in foods; enzymatic browning; non-enzymatic browning
   - Pigments in foods
   - Color and flavor food additives
   - Fermentation

3. Rationale for the Course:
   - This course provides student with a thorough understanding of the concepts of food chemistry.
   - To prepare students for professional employment and advanced studies in nutrition, food science, and food processing.

4. Skills and Background Required or Expected:
   Prerequisites for CF 445 are: BI 157/157L and BI 158/158L or CH 102/102L and CH 103/103L. The material will be taught with the understanding that students have a good grasp of fundamental principles of organic chemistry.

5. Teaching Methodologies and Anticipated class size:
   Class size is 20. This course will include individual, group and cooperative learning methods. Classes will consist of lectures, group discussions, outside readings, oral presentations, and written assignments.

6. Learning Objectives for Students:
   - Identify structures and understand functional properties of components in foods;
   - Clarify chemical and biochemical reactions of food components during the harvest,
processing, storage, and distribution of foods;

- Interpret the association of food components with food characteristics, sensory properties, safety, and quality;
- Apply food chemistry principles in food formulation, processing, and storage.
- Demonstrate using analytical tools to study the chemistry and solve problems in food formulation, processing, and storage; and
- Extrapolate chemical and biochemical reactions that influence on loss of quality and/or wholesomeness of foods.

**Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation

Methods of evaluation consist of written tests and assignments. These components are weighted as follows: tests, 75%; assignments, 25%.

8. Methods for Student Learning Outcomes Assessment:

Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:


10. Subsequent Courses:

None

11. Additional Course Descriptors, if any:

None.

The Calendar of Assignments, Assessment Project, a Statement Concerning the “Americans with Disabilities Act” (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.
College: College of Natural and Applied Sciences  
Course Number: CF 460  
Course Title: Advanced Human Nutrition  
Credit Hours: 4  
Date of Final Approval:  
Semester Offered: Spring Even Years  
Course counts as:  
- X part of Consumer & Family Sciences major program  
- X elective  
- general education requirement  

1. Catalog Description:  
This course covers the metabolism and macro- and micronutrients, including structure, digestion, absorption, transport, and cellular functions in human nutrition; energy metabolism and balance; and physiologic basis underlying dietary recommendations for human health. Prerequisites: BI157-157L and BI158-158L, or BI124/124L and BI125/125L with grade of C or better; CH101; and CF230 or CF231.

2. Course Content:  
- Fundamentals of nutritional energetics  
- Recommended dietary allowances  
- Nutrition assessment & dietary status  
- Digestion, absorption, and transport  
- Carbohydrates: structures, simple vs. complex, glycolysis, pyruvate metabolism, glycogenesis, glycogenolysis, and gluconeogenesis  
- Lipids: structures, lipoprotein metabolism, fatty acid oxidation, ketogenesis, and lipids & coronary heart disease  
- Proteins: structures of amino acids, amino acid metabolism, protein quality, protein requirements  
- Water soluble vitamins  
- Fat soluble vitamins  
- Macrominerals  
- Microminerals  
- Energy balance and weight control  

3. Rationale for the Course:  
This course is designed to provide the student with an understanding of the concepts of human nutrition including digestion, absorption, metabolism, and function of macro- and micro-nutrients as they relate to maintenance of cellular homeostasis, human health, and disease. This course extends the concepts introduced in CF 230 Nutrition and Health.

4. Skills and Background Required or Expected:  
Prerequisites for CF 460 are: BI 157/157L and BI 158/158L or BI 124/124L and BI 125/125L with grade of C or better; CH 101/01L; and CF230 or CF 231. The material will be taught with the understanding that students have a good grasp of fundamental principles of human physiology and organic chemistry.

5. Teaching Methodologies and Anticipated class size:
Class size is 25. This course will include individual, group and cooperative learning methods. Classes will consist of lectures, group discussions, outside readings, oral presentations, and written assignments.

6. Learning Objectives for Students:
   - As a result of taking this course the learner should be able to identify the structures and explain the functions of the macronutrients (carbohydrates, proteins, lipids) and major micronutrients (vitamins and minerals).
   - As a result of taking this course the learner should be able explain the pathways in which endergonic and exergonic processes are used to synthesize adenosine triphosphate from the available energy found in carbohydrates, proteins, fatty acids, and alcohol.
   - As a result of taking this course the learner should be able to identify and explain the major threats to human health associated with specific nutrient excesses and deficiencies.
   - As a result of taking this course the learner should be able to discuss the components of energy expenditure and identify the major determinants of each component.

   **Note:** With Program Faculty Consultation, an instructor may add additional SLOs to the above Program Faculty approved SLOs.

7. Methods of Evaluation:
   Methods of evaluation consist of written tests and assignments. These components are weighted as follows: tests, 75%; assignments, 25%.

8. Methods for Student Learning Outcomes Assessment:
   Depending on Instructor and Program Faculty, any one or more of the following may be selected: Pre/Post Test, Course embedded questions; Standardized exams; Portfolio Evaluation; Direct Observation; and Capstone Course Evaluation.

9. Required and Recommended Texts or Study Guides:

10. Subsequent Courses:
    None

11. Additional Course Descriptors, if any:
    None.

The Calendar of Assignments, Assessment Project, a Statement Concerning the "Americans with Disabilities Act" (ADA) Accommodations for Students, Attendance and Grading Policies are to be included in the course syllabus.