Nutrition

Overview

CRC's Nutrition department offers an associate's degree program that is challenging, accessible, and rewarding. The program provides opportunities to master the knowledge and skills required for transfer to a didactic program in dietetics or a four-year degree in nutrition and foods.

Degrees and Certificates Offered

A.S.-T. in Nutrition and Dietetics

A.S. in Nutrition and Foods

Nutrition and Foods, Community Nutrition Certificate

Plant-Based Nutrition and Sustainable Agriculture Certificate

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Associate Degrees for Transfer

A.S.-T. in Nutrition and Dietetics

The Associate in Science in Nutrition and Dietetics for Transfer degree provides students with a major that fulfills the general requirements of the California State University for transfer to baccalaureate degree programs in nutrition and dietetics. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Science in Nutrition and Dietetics for Transfer is comprised of lower division coursework typically required by CSU institutions. Students must complete the following Associate Degree for Transfer requirements (Pursuant to SB1440, §66746):

- 60 semester or 90 quarter CSU-transferable units
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern
- a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
- obtain a minimum grade point average (GPA) of 2.0
- earn a grade of C or better in all courses required for the major or area of emphasis

Upon successful completion of the Associate in Science in Nutrition and Dietetics for Transfer degree requirements, students will be guaranteed admission to the CSU system with junior status and will not have to repeat lower division coursework.

Each California State University may have slightly different requirements for transfer so it is critical for students to work with their counselors to develop individual academic plans.

Catalog Date: January 1, 2022

Degree Requirements

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 440</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 400</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles (3)</td>
<td>3</td>
</tr>
<tr>
<td>List A:</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>A minimum of 8 units from the following:</td>
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<tr>
<td>CHEM 420</td>
<td>Organic Chemistry I (5)</td>
<td></td>
</tr>
<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology (5)</td>
<td></td>
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<tr>
<td>and BIOL 430</td>
<td>Anatomy and Physiology (5)</td>
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</tbody>
</table>
The Associate in Science in Nutrition and Dietetics for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Have access to the Internet
- Be familiar with word processing, PowerPoint, retrieving and attaching electronic documents and using the world wide web
- Have self-discipline, motivation, and the ability to complete required assignments on schedule.

Enrollment Process

Eligible students are selected for the program according to the following steps:

- Admission to the college
- Contact CRC Nutrition and Foods Program Counselor regarding the specific transferrable requirements for the individual universities.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- PSLO 1: Explain the principles of nutrition and its effect on health
- PSLO 2: Demonstrate a fundamental understanding of health behaviors on nutritional and health status

Career Information

Upon successful completion of a baccalaureate degree in nutrition or dietetics include positions as dieticians, nutritionists and dietetic technicians in hospitals/nursing homes, school food services, other health related facilities, college food service, industry food service, restaurants, public health agencies, nutrition programs, WIC programs, Meals on Wheels, health clubs, weight management clinics, community wellness centers, food companies, contract food management companies, and food distribution companies.

Associate Degrees

A.S. in Nutrition and Foods

CRC's Department of Nutrition and Foods offers an Associate's Degree Program that is challenging, accessible, and rewarding. The program provides opportunities to master the knowledge and skills required for transfer to a didactic program in dietetics or a four-year degree in nutrition and foods.

Highlights include:

* Online nutrition courses

Note to Transfer Students:
If you are interested in transferring to a four-year college or university to pursue a Bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an Associate's degree in this major may be different from the requirements needed for the Bachelor's degree.

Catalog Date: January 1, 2022

Degree Requirements

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
<td>5(^1)</td>
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<tr>
<td>or CHEM 400</td>
<td>General Chemistry I (5)</td>
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</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CAM 301</td>
<td>Food Theory and Preparation (4)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 102</td>
<td>Essentials of Human Anatomy and Physiology (4)</td>
<td>4 - 5(^2)</td>
</tr>
<tr>
<td>or BIOL 430</td>
<td>Anatomy and Physiology (5)</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) If BIOL 430 is selected, BIOL 431 must also be selected as the second course taken.
First Year (Spring):
- NUTRI 310 Cultural Foods of the World (3)  
- BIOL 310 General Biology  

Second Year (Fall):
- PSYC 300 General Principles  
- NUTRI 322 Nutrition Issues Throughout Life  
- NUTRI 370 Food Service Management (3)  

Second Year (Spring):
- NUTRI 340 Nutrition and Metabolism  
- NUTRI 350 Community Nutrition  

Total Units: 38 - 39

1Chem 305, 400 are transferable to CSUS Didactic Program  
2BIOL 430 - transferable to CSUS Didactic Program  

The Nutrition and Foods Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:
- Have access to the Internet  
- Have an e-mail account  
- Be familiar with word processing, PowerPoint, retrieving and attaching electronic documents and using the world wide web  
- Have self-discipline, motivation, and the ability to complete required assignments on schedule.

Enrollment Process

Eligible students are selected for the program according to the following steps:
- Admission to the college  
- Contact CRC Nutrition and Foods Program Counselor regarding transferable courses.

Student Learning Outcomes

Upon completion of this program, the student will be able to:
- PSLO 1: Demonstrate independent learning and effective communication skills  
- PSLO 2: Explain the principles of nutrition and its effect on health  
- PSLO 3: Demonstrate a fundamental understanding of health behaviors on nutritional and health status  
- PSLO 4: Demonstrate a fundamental understanding of food service management function  
- PSLO 5: Compare the effectiveness of various management styles  
- PSLO 6: Interpret current nutrition research

Career Information

Hospitals/nursing homes, school food services, other health related facilities, college food service, industry, restaurant, public health agencies, nutrition program, WIC programs, Meals on Wheels, health clubs, weight management clinic, community wellness centers, food companies, contract food management companies, food distribution companies. Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Certificates of Achievement

Nutrition and Foods, Community Nutrition Certificate

This certificate advances student's understanding of the interaction between nutrition and health. The focus is on community wellness through dietary choices, as they relate to nutrition needs of individuals throughout the lifecycle, cultural influences, community programs targeted at addressing nutrition-related issues and basic food preparation techniques. After completing the classes for this certificate, students may apply credits toward CRC's Nutrition and Foods associate's degree program. Students earning this certificate are not qualified to practice medical nutrition therapy.

The Nutrition department offers courses both on-campus and online to accommodate varying students' needs.

Catalog Date: January 1, 2022
Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Have access to the Internet
- Have an e-mail account
- Be familiar with word processing, PowerPoint, retrieving and attaching electronic documents and using the world wide web
- Have self-discipline, motivation, and the ability to complete required assignments on schedule

Enrollment Process

Eligible students are selected for the program according to the following steps:

- Admission to the college
- Contact CRC Nutrition and Foods Program Counselor regarding transferrable courses

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- PSLO 1: Demonstrate independent learning and effective communication skills
- PSLO 2: Explain the principles of nutrition and its effect on health
- PSLO 3: Demonstrate a fundamental understanding of health behaviors on nutritional and health status

Career Information

Upon further academic study, students would be qualified for positions in hospitals/nursing homes, school food services, other health related facilities, college food service, industry, restaurant, public health agencies, nutrition program, WIC programs, Meals on Wheels, health clubs, weight management clinic, community wellness centers, food companies, contract food management companies, food distribution companies. These career options may require more than the certificate and two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Plant-Based Nutrition and Sustainable Agriculture Certificate

The Plant-Based Nutrition and Sustainable Agriculture Certificate Program brings farm-to-fork into the classroom. It provides the science that supports the benefits of whole plant-based foods to the health of the individual as well as the environment. Students will master the theories and skills of plant-based food preparation bringing the food to the fork and into everyday food choices.

Certificate Requirements

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTRI 303</td>
<td>Plant-Based Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 331</td>
<td>Plant-Based Food Principles and Preparation</td>
<td>3</td>
</tr>
<tr>
<td>HORT 313</td>
<td>Sustainable Agriculture</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 9

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- PSLO 1: Demonstrate independent learning and effective communication skills.
- Demonstrate responsibility for personal action and choices.
- Communicate effectively both orally and in writing.
- PSLO 2: Explain the principles of nutrition and its effect on health.
- Relate the dietary causes of chronic diseases.
- Evaluate the role of plant-based foods on health and the environment.
- PSLO 3: Demonstrate a fundamental understanding of health behaviors on nutritional and health status.
• Schematize the effects of personal food choice on health, the environment and public policy.
• PSLO 4: Basic and advanced plant science/horticulture skills development and improvement.
• Demonstrate and apply the theories of sustainable and organic agriculture.
• Demonstrate a fundamental understanding of soils, soil development, soil building and preparation and sustainable soil management.
• Demonstrate a fundamental understanding of hydraulics and irrigation design, installation, and water management principles and practices.
• Create agriculture design concepts based on sound, sustainable soil management, water conservation, construction and maintenance, and integrated pest management best practices.
• PSLO 5: Effectively and accurately prepare and analyze raw ingredients and prepared foods.
• Evaluate food through sensory evaluation of texture, taste, color, presentation, smell and umami.
• Identify optimal cooking procedures/heat transfer to maximize nutrient content as well as the quality of the ingredients and dish as a whole.
• Analyze quality defects in cooked products and specify possible errors in techniques or ingredient selection.
• PSLO 6: Implement proper sanitary and safety techniques.
• Demonstrate appropriate food handling and sanitary techniques.
• Utilize kitchen tools/equipment appropriately.

Career Information

In restaurants, food service facilities, farms, urban farms, sustainable/organic farms, school garden, health education. Some of these career options may require more than the certificate and two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Nutrition (NUTRI) Courses

NUTRI 299 Experimental Offering in Nutrition and Foods

Units: 0.5 - 4
Prerequisite: None.
Catalog Date: January 1, 2022

This is the experimental courses description.

NUTRI 300 Nutrition

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Transferable: CSU; UC
General Education: AA/AS Area III(b); CSU Area E1
C-ID: C-ID NUTR 110
Catalog Date: January 1, 2022

This course studies the basic science of human nutrition and its application to health and chronic diseases. It examines the sources and functions of micro- and macronutrients nutrients, including digestion, absorption, and transportations. Emphasis is placed on the health implications associated with dietary patterns, phytonutrient intake, consumption of whole foods, the impact of processing, and consequences of under and overconsumption. The course will also include topics such as nutrition as a world and consumer problem, weight loss, sports nutrition, food safety, and the diet-disease relationship, among others. An evaluation of personal dietary habits using current dietary guidelines and nutritional assessment methods will be completed to help students assess their own nutritional health.

NUTRI 303 Plant-Based Nutrition

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Transferable: CSU
General Education: AA/AS Area III(b)
Catalog Date: January 1, 2022

This course studies the science of plant-based nutrition and its application to health promotion, chronic disease reduction and the sustainability of the environment. It examines the sources and functions of micro- and macronutrients in plant foods and how the body digests, absorbs, transports and stores them. Emphasis is placed on the health implications associated with the standard American dietary intake, phytonutrient intake, whole foods/plant foods consumption, the impact of processing, and consequences of under and overconsumption. The course will also include topics on how plant-based nutrition significantly reduces the ecological footprint, how food choice can influence public policy, weight loss, food safety, and the diet-disease relationship, among others. An evaluation of personal dietary habits using current dietary guidelines and nutritional assessment methods will be completed to help students assess their own plant-based nutritional health.

NUTRI 310 Cultural Foods of the World

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Advisory: LIBR 318
Transferable: CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
Catalog Date: January 1, 2022
This course compares various western and non-western culture food customs and patterns including their social, religious, economic and aesthetic significance. The nutritional status of various cultures as it relates to geographic agricultural and socioeconomic factors will be explored. Ethnocentrism, gender-related stereotypes, and racism as they relate to the availability, distribution, and preparation of food throughout the world will also be compared.

NUTRI 322 Nutrition Issues Throughout Life

| Units:        | 3 |
| Hours:        | 54 hours LEC |
| Prerequisite: | NUTRI 300 with a grade of “C” or better |
| Advisory:     | LIBR 318 |
| Transferable: | CSU |
| General Education: | AA/AS Area III(b) |
| Catalog Date: | January 1, 2022 |

This course is a study of the nutritive needs of persons at various stages of the lifecycle with emphasis on special periods such as pregnancy, preschool, adolescence and aging. This course may be helpful for Kinesiology and Early Childhood Education students as well as those working with people in social agencies, such as nursing and gerontology, seeking an understanding of the nutritional changes and requirements through the different stages of life.

NUTRI 331 Plant-Based Food Principles and Preparation

| Units:        | 3 |
| Hours:        | 36 hours LEC; 54 hours LAB |
| Prerequisite: | None |
| Advisory:     | MATH 20 with a grade of “C” or better |
| Transferable: | CSU |
| General Education: | AA/AS Area III(b) |
| Catalog Date: | January 1, 2022 |

This course provides a comprehensive study of plant-based food ingredients and the basic principles and techniques involved in plant-based food preparation. Students will examine the factors that influence taste and the changes that occur in foods during preparation. In the laboratory, basic cooking skills and theoretical applications will be emphasized. Additionally, importance is placed on the reasons for recipe procedures and the prevention and correction of cooking failures.

NUTRI 340 Nutrition and Metabolism

| Units:        | 3 |
| Hours:        | 54 hours LEC |
| Prerequisite: | NUTRI 300 with a grade of “C” or better |
| Advisory:     | BIOL 102, BIOL 310, and LIBR 318 |
| Transferable: | CSU |
| Catalog Date: | January 1, 2022 |

This course examines the chemical structure and metabolism of carbohydrates, lipids, and proteins. Emphasis is placed on the biological roles of vitamins and minerals, metabolic pathways and their relation to health and disease. In addition, this course will help the student integrate and apply metabolic knowledge and concepts to contemporary and controversial issues in nutrition.

NUTRI 350 Community Nutrition

| Units:        | 3 |
| Hours:        | 54 hours LEC |
| Prerequisite: | NUTRI 300 with a grade of “C” or better |
| Advisory:     | NUTRI 340 |
| Transferable: | CSU |
| Catalog Date: | January 1, 2022 |

This course studies the theory, concepts, and philosophy affecting nutrition education and services in the community. Students will be introduced to programs, policies, and institutions that influence nutrition services at local, state and national levels throughout the lifespan, with special emphasis on infants and children as well as the elderly. Students will learn about epidemiology and its application in nutrition research and explore examples of how a variety of teaching methods can improve the nutritional status in a community and with various population groups.

NUTRI 370 Food Service Management

| Units:        | 3 |
| Hours:        | 54 hours LEC |
| Prerequisite: | None |
| Transferable: | CSU |
| Catalog Date: | January 1, 2022 |

The course will study the organization, planning, and control of production for a quantity food service operation. This course also examines the process and importance of food service functions such as leadership, human resource management and employee in-service training, menu planning and pricing, scheduling of staff and production, portion and temperature control, recipe standardization and scaling, basic tenants of food and equipment safety and sanitation, and elements of culinary layout and design.

NUTRI 495 Independent Studies in Nutrition and Foods

| Units:        | 1 - 3 |
| Hours:        | 54 - 162 hours LAB |
| Prerequisite: | None |
| Transferable: | CSU |
| Catalog Date: | January 1, 2022 |
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of "Special Studies" for full details of Independent Studies.

NUTRI 499 Experimental Offering in Nutrition and Foods

<table>
<thead>
<tr>
<th>Units:</th>
<th>0.5 - 4</th>
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<tbody>
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<td>Prerequisite:</td>
<td>None.</td>
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<tr>
<td>Transferable:</td>
<td>CSU</td>
</tr>
<tr>
<td>Catalog Date:</td>
<td>January 1, 2022</td>
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</table>

This is the experimental courses description.