# UNDERGRADUATE STUDENT HANDBOOK 2025-2026

## DEPARTMENT OF FOOD, NUTRITION, AND PACKAGING SCIENCES

**College of Agriculture, Forestry and Life Sciences**

CLEMSON UNIVERSITY

224 Poole Agricultural Center (P&A) Box 340316
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**www.clemson.edu/fnps**

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Department of
FOOD, NUTRITION, AND PACKAGING SCIENCES
Clemson University

# WELCOME

## TO THE DEPARTMENT OF FOOD, NUTRITION, AND PACKAGING SCIENCES

Thank you for choosing to join the Clemson University Department of Food, Nutrition, and Packaging Sciences and for deciding to pursue the worthy goal of becoming a qualified professional in the food, nutrition, culinary or packaging sciences. It is our pleasure to welcome you into a program which will prove personally satisfying and professionally challenging. Your chosen field is important to our society; you will be able to use your talents to its benefit.

To introduce you to the department, the faculty has compiled this informational booklet. The subject matter contained here is of great importance to students. The information in this booklet will allow you to grasp the overall scope of your chosen program and how it fits within the Department of Food, Nutrition, and Packaging Sciences. It will allow you to become familiar with the background and interests of the faculty. Portions of this booklet will inform you of your rights, responsibilities, and ethics as a student and as a professional-in-training. Please take time to become familiar with the material. Occasionally check our web site (www.clemson.edu/fnps) to search for updates and other information concerning the department's resources and activities.

Again, welcome to the department. Please drop by the department office and introduce yourself. We're happy to have you here.

**COLLEGE OF AGRICULTURE, FORESTRY AND LIFE SCIENCES**
**Department of Food, Nutrition, and Packaging Sciences**
223 Poole Agricultural Center, Box 340316, Clemson, SC 29634-0316
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# VISION AND MISSION OF THE DEPARTMENT OF FOOD, NUTRITION, AND PACKAGING SCIENCES

## VISION STATEMENT

Build on our diverse expertise in Food, Nutrition, Culinary, and Packaging sciences to become the national leader in integrated solutions and education.

## MISSION STATEMENT

Our mission is to expand knowledge and provide solutions in the areas of Food, Nutrition, Culinary, and Packaging sciences for South Carolina and the world.

# DEPARTMENT OF FOOD, NUTRITION, AND PACKAGING SCIENCES
# FACULTY / STAFF LISTING

## Food Science and Human Nutrition

| Faculty | Title | Office (P&A Bldg) | Phone Number (AC 864) | E-Mail Address |
|---|---|---|---|---|
| Karin P. Albornoz | Assistant Professor | Off Campus | 843-402-5399 | KPALBOR |
| George A. Cavender | Professor | 236 | 706-431-3746 | GCAVEND |
| Feng Chen | Associate Professor | 208 | 656-5702 | FCHEN |
| Bridgit D. Corbett | Senior Lecturer | 219 | 656-8914 | BRIDGIC |
| Sara L. Cothran | Principal Lecturer | 210 | 508-0875 | SSTANCI |
| Paul L. Dawson | Professor | 226 LSF | 656-1138 | PDAWSON |
| Vivian J. Haley-Zitlin | Professor | 211 | 656-7716 | VIVIANH |
| C. Marie Hegler | Senior Lecturer | 205 | 656-1201 | CAROL |
| Elliot D. Jesch | Associate Professor | 220 | 633-0874 | EJESCH |
| Xiuping Jiang | Professor | 228 LSF | 656-6932 | XIUPING |
| John U. McGregor | Professor | 255 | 650-0817 | JOHNNY |
| Julie K. Northcutt | Interim Dept Chair & Professor | 226 LSF | 656-3688 | JKNORTH |
| Charles R. Santerre | Professor | 240 | 656-8557 | SANTERR |
| Alexis D. Stamatikos | Associate Professor | 228 LSF | 361-489-8896 | ADSTAMA |
| W. Scott Whiteside | Professor | 226 | 423-0727 | WWHTSD |
| Hannah K. Wilson | Assistant Professor | Off Campus | 478-230-0809 | HKW2 |

## Packaging Science

| Faculty | Title | Office (P&A Bldg) | Phone Number (AC 864) | E-Mail Address |
|---|---|---|---|---|
| Haley A. Appleby | Senior Lecturer | 323 HA Smith | 704-425-2601 | HEAPPLE |
| Gregory S. Batt | Professor | 232 | 723-0740 | GBATT |
| Heather P. Batt | Principal Lecturer | 229 | 650-5202 | BATT |
| Alicia C. Campbell | Senior Lecturer | 228 | 710-5821 | ALICIAC |
| Kay D. Cooksey | Endowed Chair, Professor | 239 | 656-4613 | KCOOKSE |
| Duncan O. Darby | Professor | 227 | 656-6937 | DDARBY |
| R. Andrew Hurley | Professor | 318 HA Smith | 650-4954 | RUPERTH |
| Pat Guerra Marcondes | Senior Lecturer | 230 | 650-5830 | PATM |
| Omer Sadak | Assistant Professor | 237 | 402-601-8789 | OSADAK |
| James S. Sternberg | Assistant Professor | 234 | 407-690-1069 | STERNBE |

# DEPARTMENT OF FOOD, NUTRITION, AND PACKAGING SCIENCES
# FACULTY / STAFF LISTING (Continued)

| Department Staff | Title | Office (P&A Bldg) | Phone Number (AC 864) | E-Mail Address |
|---|---|---|---|---|
| Glenda S. Brown | Admin Coord (Undergrad Student Services) | 224 | 656-5698 | GBRWN |
| Belinda A. Cochran | Research Assistant | 226 LSF | 245-4821 | BCOCHRA |
| Kimberly Leopard | Sales Representative | 209 | 656-2155 | KLEOPAR |
| Brennan J. Lytle | Research Laboratory Manager | 109 Newman | 952-9292 | BRENNAL |
| Donald O. Massey | Research Specialist III | 118 Newman | 986-9759 | DOMASSE |

# MEET THE FACULTY

## FACULTY

**Karin Albornoz** – Assistant Professor, Ph.D., (University of California, Davis). Research interests are focused on 1)investigating the molecular, biochemical and physiological factors that determine the quality and shelf-life of product, 2)studying the impact of abiotic stress on the postharvest quality of fruits and vegetables, and 3)developing innovative approaches to reduce produce loss and waste.

**Haley E. Appleby** – Senior Lecturer, B.S., (Clemson University). Primary teaching responsibilities include Product/Package Design and Prototyping (PKSC 2200), Package Design & Development (PKSC 4200). Academic Advisor for students and CAFLS Representative to the Athletic Council.

**Gregory S. Batt** – Professor, Ph.D., (Clemson University). Primary teaching responsibilities include Mechanical Properties of Packages and Principles of Protective Packaging (PKSC 4040/6040), the associated lab Product and Package Evaluation Laboratory (PKSC 4540/6540), and a graduate course Packaging Dynamics. Research interests are in the area of packaging dynamics with recent research topics in Multi-axis vibration in evaluation of packaged products and Dynamic response characterization of cushion material.

**Heather P. Batt** – Principal Lecturer, Ph.D., (Clemson University). Primary teaching responsibilities include Introduction to Packaging Science (PKSC 1020), Packaging of Perishable Products (PKSC 2010), and Packaging and Society (PKSC 3680). Academic Advisor for students, and faculty representative to the President's Commission on Women.

**Alicia C. Campbell** – Senior Lecturer, M.S., M.B.A. (Clemson University). Primary teaching responsibilities include Container Systems Lab (PKSC 2060), Applications of Polymers in Packaging (PKSC 4160) and the associated lab (PKSC 4161) and Packaging for Distribution (PKSC 4400).

**George A. Cavender** – Associate Professor, Ph.D., (University of Georgia). Primary teaching responsibilities include Food Process Engineering (FDSC 4080), team-teaching Food Preservation and Processing (FDSC 4040) and Creative Inquiry projects. Research interests primarily focuses on the effects of processing on food quality, measured both instrumentally as well as via sensory methods. Of particular interest are the effects of novel and emergent processes such as high-pressure processing, ultra-high-pressure homogenization and sous vide cooking on the quality of protein foods. Interests also include by-product valorization through innovative processing, both for ingredient development and the creation of more sustainable packaging

**Feng Chen** –Professor, Ph.D., (Louisiana State University). Primary teaching responsibilities include Food Chemistry (FDSC 4010 and FDSC 4020). Research interests are food flavor chemistry, identification, isolation and application of bioactive nutraceutical compounds from natural sources.

**Kay D. Cooksey** – Professor and Cryovac Endowed Chair, Ph.D., (University of Illinois-Champaign-Urbana). Primary teaching responsibility includes Food and Healthcare Packaging (PKSC 4640/6640). Research focus is on active packaging particularly antimicrobial food packaging; interaction of food and packaging materials, shelf-life evaluation of packaged foods, biopolymers and sustainable packaging.

**Bridgit D. Corbett** – Senior Lecturer and DPD Director, EdD, RD, LD (University of Phoenix). Primary teaching responsibilities include Principles of Human Nutrition (NUTR 2030), Food and Culture (NUTR 3010), Institutional Food Service Management (FDSC 3060), Quantity Food Production (NUTR 4070) and advising. Bridgit acts as advisor within the organization, MANNRS by mentoring students majoring in CAFLS. She also acts as advisor for the Mentoring program within human nutrition majors. She was active for 6 years on the executive and leadership team in the Nutrition Education for the Public and acted as chair for 2019-2020.

**Sara L. Cothran** – Principal Lecturer, MS, (Clemson University). Primary teaching responsibilities include Food Regulation and Policy (FDSC 3010), Evaluation of Dairy Products Laboratory (FDSC 3041), sophomore seminar (FDSC 4170), and Dairy Processing and Sanitation Laboratory (FDSC 4301). Other responsibilities include advising and managing the '55 Exchange, home of Clemson Ice Cream. Research interests include product development within the dairy industry, and milk foaming properties.

**Duncan O. Darby** – Professor, Ph.D., (University of Louisville). Primary teaching responsibility include Converting of Flexible Packaging (PKSC 4300) and team-teaching Packaging Machinery (PKSC 4010). Research interest is largely materials focused. These include flexible packaging technology, package sealing and cushioning.

**Paul L. Dawson** – Professor, Ph.D., (North Carolina State University). In addition to serving as Graduate Program Coordinator his primary teaching responsibilities include Food Resources and Society (FNPS 2140), Food Chemistry and Analysis (FDSC 4030), Chemical and Biochemical Aspects of Food (FDSC 8100) and Physical and Thermophysical Properties of Food (FDSC 8110). Research interest is processing and packaging on food safety and quality. Specific research areas include microbiological intervention and sensors to detect pathogens and determine shelf life; lipid chemistry, oxidation and isolation of bioactive compounds from food byproducts; and bioactive packaging materials with food. Creative Inquiry studies focus on bacterial transfer on food surfaces and using Statistics to analyze Food Advertising Claims.

**Vivian J. Haley-Zitlin** –Professor, Ph.D., R.D.N., L.D. (University of Tennessee-Knoxville). Primary teaching responsibilities include Medical Nutrition Therapy I & II (NUTR 4240 and 4250). Research interests include basic science and clinical investigations of the effects of nutrition, including phytonutrients, on the treatment and prevention of chronic diseases (especially diabetes, obesity, and cardiovascular disease) and the aging process.

**C. Marie Hegler** – Senior Lecturer, B.S., (Clemson University). Primary teaching responsibilities include Introduction to Food Science and Human Nutrition (FDSC 1010), Culinary Fundamentals (FDSC 2150/2151), Fundamentals of Baking Science (FDSC 2160/2160), Food Product Development (FDSC 4100), and Quality Certifications Focus (FDSC 4200). Other responsibilities include student advising and Research Chefs Association Program Director.

**R. Andrew Hurley** – Professor, Ph.D. (Clemson University). Primary teaching responsibilities include a variety of instruction in package design (PKSC 3200, 4230, 4240, 4990). Research interests are in the area of marketplace, consumer, and shopper research through the use of biometrics (eye tracking, facial expression analysis, and food sensory analysis).

**Elliot D. Jesch** – Associate Professor, Ph.D. (University of Nebraska-Lincoln). Primary teaching responsibilities include Nutrition Assessment (NUTR 3020) and Human Nutrition and Metabolism (NUTR 4510 and NUTR 4550). Research interests involve the interaction of nutrition and physical activity, specifically examining the impact of nutrient timing and the timing of physical activity.

**Xiuping Jiang** – Professor, Ph.D., (University of Maryland). Primary teaching responsibilities include Food and Dairy Microbiology (MICRO 4070) and Microbiological Aspects of Food Systems (FDSC 8120). Research interests are food microbiology and food safety. Area of study includes the control and source of foodborne pathogens, and biosafety.

**Pat D. Guerra Marcondes** – Senior Lecturer, M.S., (Clemson University). Primary teaching responsibilities include Packaging Orientation (PKSC 1010), Packaging Materials and Manufacturing (PKSC 2020), Container Systems (Rigid and Flexible) (PKSC 2040), and Container Systems Laboratory (PKSC 2060). Ms. Marcondes is the mentor for the Packaging Science Student club, advisor for Summer orientation, and an instructor for the Emerging Scholars Summer program.

**John U. McGregor** – Professor, Ph.D., (Mississippi State University). Primary teaching responsibilities include Perspectives in Food & Nutrition Sciences (FDSC 1020), Evaluation of Dairy Products (FDSC 3040), Quality Management for the Food and Packaging Industries (FDSC 4090) and Dairy Processing and Sanitation (FDSC 4300). Research interest is Dairy Foods Technology and Product Development. Areas of study include the chemistry and flavor of coffee, natural antioxidants, specialty cheeses, and value-added processing.

**Julie K. Northcutt** – Interim Dept. Chair and Professor, Ph.D., (North Carolina State University). Primary responsibilities and research interest include food microbiology (*Salmonella*, *Listeria* and *Campylobacter* spp.) and food chemistry (quality, shelf-life and product formulation), especially as they relate to commercial food manufacturing.

**Charles R. Santerre** – Professor, Ph.D., (Michigan State University). Director of Agriculture Policy Development where he works on projects to advance State and federal policies. Dr. Santerre was a former White House senior policy advisor for the Office of Science and Technology Policy in the Executive Office of the President in Washington, D.C.

**Omer Sadak** – Assistant Professor, PhD, (University of Wisconsin-Madison). Primary teaching responsibilities are in undergraduate and graduate courses in the area of healthcare/medical packaging. Research interests are in healthcare/medical package.

**Alexis D. Stamatikos** – Associate Professor, PhD/RD, (Texas Tech University). Primary teaching responsibilities include Nutrition Across the Life Cycle (NUTR 2040) and Nutrition Education of the Public (NUTR 8040). Primary research area is atherosclerosis.

**James S. Sternberg** – Assistant Professor, Ph.D. (Clemson University). Primary teaching responsibilities are in undergraduate and graduate courses on the sustainability of packaging materials. Research interests include formulation of new biobased plastics and composites, testing of barrier properties of films and adhesives, designing new materials for biodegradability and compostability, and chemical recycling techniques of existing plastic waste into new materials of higher value.

**W. Scott Whiteside** – Professor, Ph.D., (Clemson University). Research interest in new shelf stable food packaging systems and technologies (i.e., retort pouches, trays, bowls, cups, etc.) and thermal processing of foods (USDA & FDA process authority expertise). Additional research interest in modification of packaging biopolymers and oxygen scavenging technology. Extension responsibility includes providing assistance to South Carolina food processing and packaging companies and supervision of the Cryovac® Flavour Mark™ Retort Laboratory.

**Hannah K. Wilson** – Assistant Professor, PhD, (University of Georgia). Research interests focus on development, dissemination, and implementation of programs and interventions aiming to reduce the public health burden of lifestyle-related chronic diseases that account for many of the leading causes of death in the US, including diabetes, cardiovascular disease, obesity, and cancer.

# MEET THE STAFF

**Glenda S. Brown** – Administrative Coordinator (Undergraduate Student Services), Room 224 Poole Agricultural Center. Registration Coordinator and Room Coordinator for the Food Science and Human Nutrition program and the Packaging Science program, manages advisor assignments, textbook and grade coordinator, maintains undergraduate academic files, coordinates and maintains PKSC alumni list, and manages course scheduling and room scheduling.

**Belinda A. Cochran** – Research Assistant, Room 226 Life Sciences Facility. Belinda works for Dr. Paul Dawson & Dr. Julie Northcutt primarily on a rapid detection Biosensor project to detect SARS-CoV-2. She is also available to help students in 230A and 230B with their lab projects. Her background is in Environmental Microbiology and Clinical Microbiology.

**Kimberly Leopard** – Sales Representative, Room A203H Poole Agricultural Center. Manages day-to-day operations of Clemson's '55 Exchange retail ice cream store. The '55 Exchange is a student entrepreneurial center that is responsible for the manufacture and retail sale of Clemson ice cream.

**Brennan J. Lytle** – Research Laboratory Manager, Room 109 Newman Hall. Manages and coordinates the Sonoco Transport Testing Laboratory where he conducts contract testing for a variety of companies.

**Donald O. Massey** – Research Specialist III, Center for Flexible Packaging (CEFPACK), 118 Newman Hall. Manages and coordinates the work done in the DuPont Lab, including service work, regular equipment maintenance, and equipment training.

# ADVISORS

## Food Science and Human Nutrition

### *Food Science and Technology Concentration (FDST)*

**Ms. Sara Cothran**
210 Poole Agricultural Center…508-0875…sstanci@clemson.edu

**Ms. Marie Hegler**
205 Poole Agricultural Center…656-1201…carol@clemson.edu

### *Nutrition Concentration (NUTR)*

**Dr. Bridgit Corbett: (includes *Dietetics Emphasis*)**
219 Poole Agricultural Center…656-8914...bridgic@clemson.edu

**Ms. Katie Black**
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## Packaging Science

**Ms. Haley Appleby**
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**Dr. Kay Cooksey**
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**Dr. Duncan Darby**
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**Ms. Pat Marcondes**
230 Poole Agricultural Center…650-5830…patm@clemson.edu

***All advisors are willing to assist you in any way possible in addition to pre-registration. Feel free to stop by during office hours or schedule an appointment.***

# BACHELOR OF SCIENCE

# IN

# FOOD SCIENCE & HUMAN NUTRITION

## Curriculum

## and

## Course Descriptions

# Food Science and Human Nutrition Major
## Food Science and Technology Concentration Curriculum
2025-2026

### *Freshman Year*

| Fall Semester | | |
|---|---|---|
| BIOL 1030 | General Biol I ***and*** | 3 |
| BIOL 1050 | General Biol Lab I ***or*** | 1 |
| BIOL 1100 | Principles of Biology I | 4 |
| BIOL 1101 | Principles of Biology 1 Lab | 0 |
| CH 1010 | General Chemistry ***and*** | 4 |
| CH 1011 | General Chemistry Lab | 0 |
| ENGL 1030 | Composition & Rhetoric ***and*** | 3 |
| ENGL 1031 | Composition & Rhetoric Lab | 0 |
| FDSC 1020 | Perspective in FD & Nutr Sci | 1 |
| MATH 1020 | Business Calculus I ***or*** | 3 |
| MATH 1060 | Calculus of One Var I | 4 |
| | | **15-16** |

| Spring Semester | | |
|---|---|---|
| BIOL 1040 | General Biology II ***and*** | 3 |
| BIOL 1060 | General Biology II Lab or | 1 |
| BIOL 1110 | Principles of Biology II | 4 |
| BIOL 1111 | Principles of Biology II Lab | 0 |
| CH 1020 | General Chemistry ***and*** | 4 |
| CH 1021 | General Chemistry Lab | 0 |
| FDSC 2150 | Culinary Fundamentals | 2 |
| FDSC 2151 | Culinary Fundam Lab | 0 |
| PSYC 2010 | Intro to Psychology | 3 |
| Oral Communication Requirement [1] | | 3 |
| | | **16** |

### *Sophomore Year*

| Fall Semester | | |
|---|---|---|
| CH 2010 | Survey Organic Chem ***and*** | 3 |
| CH 2020 | Survey Organic Chem Lab ***or*** | 1 |
| CH 2230 | Organic Chemistry ***and*** | 3 |
| CH 2270 | Organic Chemistry Lab | 1 |
| FDSC 3010 | Food Reg and Policy[2] | 3 |
| FDSC 4170 | Seminar | 1 |
| FDSC 4500 | Creative Inquiry | 1 |
| PHYS 2070 | General Physics I ***and*** | 3 |
| PHYS 2090 | General Physics I Lab ***or*** | 1 |
| PHYS 2000 | Physics for Everyone ***or*** | 4 |
| PHYS 1220 | Physics w/Calculus I ***and*** | 3 |
| PHYS 1240 | Physics I Lab | 1 |
| STAT 2300 | Statistical Methods I | 3 |
| STAT 2301 | Statistical Methods I Lab | 0 |
| | | **16** |

| Spring Semester | | |
|---|---|---|
| BCHM 3050 | Essen Elem of Biochem | 3 |
| FNPS 2140 | Food Resources &Society[2] | 3 |
| FDSC 3040 | Evaluation Dairy Prod ***and*** | 2 |
| FDSC 3041 | Evaluation Dairy Prod Lab | 0 |
| FDSC 4090 | Total Quality Management | 3 |
| FDSC 4500 | Creative Inquiry | 1 |
| Social Science Requirement[1] | | 3 |
| | | **15** |

### *Junior Year*

| Fall Semester | | |
|---|---|---|
| FDSC 4010 | Food Chemistry I | 3 |
| MICR 3050 | Gen Microbiology | 3 |
| MICR 3060 | Gen Microbiology Lab | 1 |
| NUTR 2030 | Intro to Princ of Human Nutr | 3 |
| FDSC 4300 | Dairy Proc & Sanitation | 3 |
| FDSC 4301 | Dairy Proc & Sanit Lab | 0 |
| Arts & Humanities (Lit) Requirement [1] | | 3 |
| | | **16** |

| Spring Semester | | |
|---|---|---|
| FDSC 4020 | Food Chemistry II | 3 |
| FDSC 4030 | Food Chem & Analy ***and*** | 2 |
| FDSC 4031 | Food Chem Lab | 0 |
| FDSC 4500 | Creative Inquiry | 2 |
| MICR 4070 | Food & Dairy Micro ***and*** | 4 |
| MICR 4071 | Food & Dairy Micro Lab | 0 |
| Emphasis Area Requirement[3] | | 3 |
| | | **14** |

### *Senior Year*

| Fall Semester | | |
|---|---|---|
| FDSC 4040 | Food Preservation & Proc | 3 |
| FDSC 4060 | Food Preservation & Proc Lab | 1 |
| FDSC 4100 | Food Product Dev ***and*** | 4 |
| FDSC 4101 | Food Product Dev Lab | 0 |
| FDSC 4500 | Creative Inquiry | 1 |
| Emphasis Area Requirement[3] | | 6 |
| | | **15** |

| Spring Semester | | |
|---|---|---|
| FDSC 4080 | Food Process Engr ***and*** | 4 |
| FDSC 4081 | Food Process Engr Lab | 0 |
| FDSC 4230 | Food Safety Certifications | 3 |
| PCID 3040 | Business Comm & ID ***or*** | 3 |
| PCID 3140 | Technical Comm & ID ***or*** | 3 |
| PCID 3150 | Science Comm & ID | 3 |
| Arts & Humanities (Non-Lit) Requirement[1] | | 3 |
| Emphasis Area Requirement[3] | | 3 |
| | | **16** |

123-124 TOTAL SEMESTER HOURS

[1] See General Education Requirements. Three of these credits must also satisfy the South Carolina REACH Act Requirement. See the South Carolina REACH Act Requirement in the Academic Regulations section.
[2] This course also satisfies a Global Challenge requirement.
[3] Emphasis Areas consist of 12 credit hours. See advisor and departmental undergraduate student handbook/website for more detailed information.
NOTE: A transfer course may not be used to satisfy the General Education Global Challenges Requirement. While a transfer course may fulfill other degree requirements, students must enroll in a Clemson course(s) on the Global Challenges list to fulfill the Global Challenges Requirement.
**IMPORTANT NOTE:** If you have not taken the required courses at the appropriate time as outlined in the above curriculum map, then you assume the risk of possibly not graduating by your intended graduation date. Note that most nutrition and food science courses are only offered one time per year – typically the semester listed on the curriculum map. Many courses have pre-requisites which are strictly enforced. Failure to complete the pre-requisites will prevent you from taking the course. Check *Undergraduate Catalog* for the specific pre-requisites required for individual course.

## EMPHASIS AREA 1 - CULINARY SCIENCES and CULINOLOGY™

- Required:
    - FDSC 2160/FDSC 2161 and FDSC 3060 or FDSC 3070.
    - Students who desire the Research Chef's Association Culinology™ Designation, must take the following 2 courses:
        - FDSC 2500 ***and***
        - FDSC 3500.
- Select remaining credits from the following: ACCT 2010, ACCT 2020, AFLS 2000, AGED 4160, AGRB 2050, ANT 3250, BIOL 2220/BIOL 2221, BIOL 2230 / BIOL 2231 , ENTR 1010, FDSC 4200 , FDSC 4500, HLTH 2500 , HORT 4560 , IS 2100, PES 3150, PKSC 4010, PKSC 4220, PKSC 4640/PKSC 4641, MGT 2010, MKT 3010, NUTR 4510, NUTR 4550, STAT 3300

## EMPHASIS AREA 2- FOOD SYSTEMS

- Required courses:
    - PKSC 4010 or PKSC 4640/PKSC 4641
- Select remaining credits from the following: ACCT 2010, ACCT 2020, AFLS 2000, AGED 4160, AGRB 2050, ANT 3250, BIOL 2220/BIOL 2221, BIOL 2230/BIOL 2231, ENTR 1010, FDSC 2160/FDSC 2161, FDSC 3060 or FDSC 3070, FDSC 4200, FDSC 4500, HLTH 2500, HORT 4560, IS 2100, PES 3150, PKSC 4010, PKSC 4220, PKSC 4640/PKSC 4641, MGT 2010, MKT 3010, NUTR 4510, NUTR 4550, STAT 3300

# FOOD SCIENCE AND HUMAN NUTRITION MAJOR

## Food Science Course Offerings*

| | Taught When | | |
|---|---|---|---|
| | Fall | Spring | Summer* |
| FDSC 1020 (1) - Perspectives in Food and Nutrition Sciences – Preq: FDHN major or FDSC minor | | X | |
| FNPS 2140 (3) - Food Resources and Society – Preq: FDHN major or FDSC minor | | X | X |
| FDSC 2150/2151 (2) - Culinary Fundamentals; Preq: FDHN major; Coreq: FSC 2151 | | X | |
| FDSC 2160/2161 (2) - Fundamentals of Baking Science – Preq: FDHN major; Coreq: FDSC 2161 | X | | |
| FDSC 2500 - Culinary Science Internship – Preq: FDSC 2150 | X | X | X |
| FDSC 3010 (3) - Food Regulation and Policy | X | | |
| FDSC 3040/3041 (2) - Evaluation of Dairy Products - Preq: FDHN major or FDSC minor; and STAT 2300; Coreq: FDSC 3041 | | X | |
| FDSC 3060 (3) - Institutional Food Service Management - Preq: FDHN major. | X | | |
| FDSC 3070 (3) - Restaurant Food Service Management | X | | |
| FDSC 3500 - Food Science Internship - Preq: FNPS 2140 | | X | |
| FDSC 4010 (3) - Food Chemistry I - Preq: FDHN major, FDSC minor, or PKSC major/minor; and BCHM 3050 | X | | |
| FDSC 4020 (3) - Food Chemistry II - Preq: FDHN major or FDSC minor; and FDSC 4010. | | X | |
| FDSC 4030/4031 (2) - Food Chemistry and Analysis - Preq: FDHN or FDSC minor; and FDSC 4010. | | X | |
| FDSC 4040/4060 (4 total) - Food Preservation and Processing - Preq: FDHN major or FDSC minor or PKSC major or minor; and FDSC 4010 and MICR 3050; and one of PHYS 1220 or PHYS 2000 or PHYS 2070. | X | | |
| FDSC 4080/4081 (4) - Food Process Engineering - Preq: FDHN major or FDSC minor; and CH 1020 and FDSC 2140; and one of MATH 1020 or MATH 1060; and one of PHYS 1220 or PHYS 2000 or PHYS 2070. Coreq: FDSC 4081 | | X | |
| FDSC 4090 (3) - Total Quality Management for the Food and Packaging Industries (3) - Preq: STAT 2300 or EXST 3010. | | X | |
| FDSC 4100/4101 (4) - Food Product Development - Preq: FDHN major or FDSC minor; and Junior standing; Preq or concurrent enrollment: FDSC 4030; Coreq: FDSC 4101 | | X | |
| FDSC 4170 (1) - Seminar - Preq: FDHN major. | | X | |
| FDSC 4180 (1) - Seminar - Preq: FDHN major. | X | | |

| | | | |
|---|---|---|---|
| FDSC 4200 (1-3) - Special Topics in Food Science – Includes Honors sections. Preq: Consent of instructor. | X | X | X |
| FDSC 4210 (1-4) - Special Problems in Food Science – Includes Honors sections. Preq: Consent of instructor. | X | X | X |
| FDSC 4300/4301 (3) - Dairy Processing and Sanitation - Preq: CH 1020; and either both BIOL 1040 and BIOL 1060, or BIOL 1110; Coreq: FDSC 4301 | X | | |
| FDSC 4500 (1-6) - Creative Inquiry/Food Science. May be repeated for a maximum of ten credits. | X | X | |
| FDSC 4910 (1-4) - Practicum - Preq: FDHN major and Junior standing and consent of department chair. | X | X | |
| FDSC 4950/4951 (3) - Senior Honors Research in Food Science - Preq: Membership in Calhoun Honors College and FDHN major; Coreq: FDSC 4951 | X | | |
| FDSC 4960/4961 (3) - Senior Honors Research in Food Science - Preq: Membership in Calhoun Honors College and FDHN major; Coreq: FDSC 4961 | | X | |

*Information is subject to change and subject to sufficient enrollment.

# Food Science and Human Nutrition Major
## Nutrition Concentration Curriculum
2025-2026

### *Freshman Year*

| Fall Semester | | |
|---|---|---|
| BIOL 1030 | General Biol I ***and*** | 3 |
| BIOL 1050 | General Biol Lab I ***or*** | 1 |
| BIOL 1100 | Principles of Biology I | 4 |
| BIOL 1101 | Principles of Biology 1 Lab | 0 |
| CH 1010 | General Chemistry ***and*** | 4 |
| CH 1011 | General Chemistry Lab | 0 |
| ENGL 1030 | Composition & Rhetoric ***and*** | 3 |
| ENGL 1031 | Composition & Rhetoric Lab | 0 |
| NUTR 1010 | Intro to FDSC & NUTR | 1 |
| MATH 1020 | Business Calculus I ***or*** | 3 |
| MATH 1060 | Calculus of One Var I | 4 |
| | | **15-16** |

| Spring Semester | | |
|---|---|---|
| BIOL 1040 | General Biology II ***and*** | 3 |
| BIOL 1060 | General Biology II Lab or | 1 |
| BIOL 1110 | Principles of Biology II | 4 |
| BIOL 1111 | Principles of Biology II Lab | 0 |
| CH 1020 | General Chemistry ***and*** | 4 |
| CH 1021 | General Chemistry Lab | 0 |
| PSYC 2010 | Intro to Psychology | 3 |
| | Oral Communication Requirement [1] | 3 |
| | Social Science Requirement[1] | 3 |
| | | **17** |

### *Sophomore Year*

| Fall Semester | | |
|---|---|---|
| BIOL 2220 | Human Anatomy & Phys I | 4 |
| BIOL 2221 | Human Anatomy & Phys I Lab | 0 |
| CH 2230 | Organic Chemistry ***and*** | 3 |
| CH 2270 | Organic Chemistry Lab | 1 |
| ECON 2000 | Economic Concepts ***or*** | 3 |
| ECON 2110 | Princip of Microeconomics ***or*** | 3 |
| ECON 2120 | Princip of Macroeconomics | 3 |
| NUTR 2030 | Intro to Princip of Human Nutr | 3 |
| NUTR 2160 | Evidence-Based Nutrition | 2 |
| | | **16** |

| Spring Semester | | |
|---|---|---|
| BCHM 3050 | Essen Elem of Biochemistry | 3 |
| BIOL 2230 | Human Anatomy & Phys II | 4 |
| BIOL 2231 | Human Anatomy & Phys II Lab | 0 |
| MGT 2010 | Principles of Management | 3 |
| NUTR 2040 | Nutrition Across the Life Cycle | 3 |
| STAT 2300 | Statistical Methods I | 3 |
| STAT 2301 | Statistical Methods I Lab | 0 |
| | | **16** |

### *Junior Year*

| Fall Semester | | |
|---|---|---|
| ACCT 2010 | Financial Acct Concepts ***or*** | 3 |
| ACCT 2020 | Managerial Acct Concepts | 3 |
| FDSC 4500 | Creative Inquiry | 1 |
| MICR 3050 | General Microbiology ***and*** | 3 |
| MICR 3060 | General Microbiology Lab | 1 |
| NUTR 3020 | Nutrition Assessment | 4 |
| NUTR 3021 | Nutrition Assessment Lab | 0 |
| NUTR 4510 | Human Nutr & Metabolism I | 3 |
| | | **15** |

| Spring Semester | | |
|---|---|---|
| FDSC 2010 | Introduction to Food ***or*** | 3 |
| FNPS 2140 | Food Resources & Soc | 3 |
| FDSC 4500 | Creative Inquiry | 1 |
| MICR 4070 | Food and Dairy Micro ***and*** | 4 |
| MICR 4071 | Food and Dairy Micro Lab | 0 |
| NUTR 3010 | Food and Culture | 3 |
| NUTR 4550 | Human Nutr & Metabolism II | 3 |
| | Emphasis Area Professional Development[2] | 1 |
| | | **15** |

### *Senior Year*

| Fall Semester | | |
|---|---|---|
| ENGL(PCID) 3040 | Business Writing ***or*** | 3 |
| ENGL 3140 (PCID) | Technical Writing | 3 |
| | Arts &Humanities (Lit) Requirement[1] | 3 |
| | Emphasis Area Requirements[3] | 7-8 |
| | Global Challenges Requirement[1] | 3 |
| | | **16-17** |

| Spring Semester | | |
|---|---|---|
| NUTR 4260 | Community Nutrition | 3 |
| | Arts &Humanities (Non-Lit) Requirement[1] | 3 |
| | Emphasis Area Requirements[3] | 9 |
| | | **15** |

125-127 TOTAL SEMESTER HOURS

[1] See General Education Requirements. Three of these credits must also satisfy the South Carolina REACH Act Requirement. See the South Carolina REACH Act Requirement in the Academic Regulations section. A transfer course may not be used to satisfy the General Education Global Challenges Requirement. While a transfer course may fulfill other degree requirements, students must enroll in a Clemson course(s) on the Global Challenges list to fulfill the Global Challenges Requirement.

[2] NUTR 4180 is required for the Dietetics emphasis, and NUTR 4190 is required for students in all other emphasis areas.

[3] See advisor; Completion of an emphasis is required for the concentration. The approved course list for the four emphasis areas is available in the department undergraduate student handbook or the department office. Emphasis areas consist of 17 or 18 credits selected from one of the following areas: Dietetics, Basic and Behavioral Science, Community Health and Wellness, and Food Industry. To be accepted into the Dietetics emphasis area, students must have a minimum GPA of 3.2, have earned a C or better in science and social science coursework, and a B or better in food science and nutrition coursework. Refer to the Dietetics Program Admission Policy in the FNPS undergraduate student handbook for details.

**IMPORTANT:** Make note of all pre-requisites and co-requisites associated with specific courses as indicated in the course catalog. If the curriculum is not followed as outlined, it may impair one's ability to progress through the curriculum or pass with a specified grade. Most courses within the major are offered one time per year as outlined above. If the required courses are not taken at the appropriate time as outlined in the curriculum map, the student will assume the potential risk of not graduating on time.

# Food Science and Human Nutrition Major
## Nutrition Concentration Curriculum
## Dietetics Emphasis[2,3]
2025-2026

### *Freshman Year*

| Fall Semester | | |
|---|---|---|
| BIOL 1030 | General Biol I ***and*** | 3 |
| BIOL 1050 | General Biol Lab I ***or*** | 1 |
| BIOL 1100 | Principles of Biology I | 4 |
| BIOL 1101 | Principles of Biology 1 Lab | 0 |
| CH 1010 | General Chemistry ***and*** | 4 |
| CH 1011 | General Chemistry Lab | 0 |
| ENGL 1030 | Composition & Rhetoric ***and*** | 3 |
| ENGL 1031 | Composition & Rhetoric Lab | 0 |
| NUTR 1010 | Intro to FDSC & NUTR | 1 |
| MATH 1020 | Business Calculus I ***or*** | 3 |
| MATH 1060 | Calculus of One Var I | 4 |
| | | **15-16** |

| Spring Semester | | |
|---|---|---|
| BIOL 1040 | General Biology II ***and*** | 3 |
| BIOL 1060 | General Biology II Lab or | 1 |
| BIOL 1110 | Principles of Biology II | 4 |
| BIOL 1111 | Principles of Biology II Lab | 0 |
| CH 1020 | General Chemistry ***and*** | 4 |
| CH 1021 | General Chemistry Lab | 0 |
| PSYC 2010 | Intro to Psychology | 3 |
| Oral Communication Requirement [1] | | 3 |
| Social Science Requirement [1] | | 3 |
| | | **17** |

### *Sophomore Year*

| Fall Semester | | |
|---|---|---|
| BIOL 2220 | Human Anatomy & Phys I | 4 |
| BIOL 2221 | Human Anatomy & Phys I Lab | 0 |
| CH 2230 | Organic Chemistry ***and*** | 3 |
| CH 2270 | Organic Chemistry Lab | 1 |
| ECON 2000 | Economic Concepts ***or*** | 3 |
| ECON 2110 | Princip of Microeconomics ***or*** | 3 |
| ECON 2120 | Princip of Macroeconomics | 3 |
| NUTR 2030 | Intro to Princip of Human Nutr | 3 |
| NUTR 2160 | Evidence-Based Nutrition | 2 |
| | | **16** |

| Spring Semester | | |
|---|---|---|
| BCHM 3050 | Essen Elem of Biochemistry | 3 |
| BIOL 2230 | Human Anatomy & Phys II | 4 |
| BIOL 2231 | Human Anatomy & Phys II Lab | 0 |
| MGT 2010 | Principles of Management | 3 |
| NUTR 2040 | Nutrition Across the Life Cycle | 3 |
| STAT 2300 | Statistical Methods I | 3 |
| STAT 2301 | Statistical Methods I Lab | 0 |
| | | **16** |

### *Junior Year*

| Fall Semester | | |
|---|---|---|
| ACCT 2010 | Financial Acct Concepts ***or*** | 3 |
| ACCT 2020 | Managerial Acct Concepts | 3 |
| FDSC 4500 | Creative Inquiry | 1 |
| MICR 3050 | General Microbiology ***and*** | 3 |
| MICR 3060 | General Microbiology Lab | 1 |
| NUTR 3020 | Nutrition Assessment | 4 |
| NUTR 3021 | Nutrition Assessment Lab | 0 |
| NUTR 4510 | Human Nutr & Metabolism I | 3 |
| | | **15** |

| Spring Semester | | |
|---|---|---|
| FDSC 2010 | Introduction to Food ***or*** | ***3*** |
| FNPS 2140 | Food Resources & Soc | 3 |
| FDSC 4500 | Creative Inquiry | 1 |
| MICR 4070 | Food and Dairy Micro ***and*** | 4 |
| MICR 4071 | Food and Dairy Micro Lab | 0 |
| NUTR 3010 | Food and Culture | 3 |
| NUTR 4550 | Human Nutr & Metabolism II | 3 |
| NUTR 4180 | Profess Dev in Dietetics | 1 |
| | | **15** |

### *Senior Year*

| Fall Semester | | |
|---|---|---|
| ENGL (PCID) 3040 | Business Writing ***or*** | 3 |
| ENGL (PCID) 3140 | Technical Writing | 3 |
| FDSC 3060 | Inst Food Service Mgt | 3 |
| NUTR 4240 | Medical Nutr Therapy I | 3 |
| Arts &Humanities (Lit) Requirement[1] | | 3 |
| Global Challenges Requirement[1] | | 3 |
| Emphasis Area Requirement | | 2-3 |
| | | 17-18 |

| Spring Semester | | |
|---|---|---|
| NUTR 4260 | Community Nutrition | 3 |
| NUTR 4250 | Medical Nutr Therapy II | 3 |
| NUTR 4070 | Quantity Food Production | 3 |
| NUTR 4071 | Quantity Food Prod Lab | 0 |
| NUTR 4270 | Nutrition Counseling | 2 |
| Arts &Humanities (Non-Lit) Requirement[1] | | 3 |
| | | **14** |

125-127 TOTAL SEMESTER HOURS

[1]See General Education requirements. Three of these credits must also satisfy the South Carolina REACH Act Requirement. See the South Carolina REACH Act Requirement in the Academic Regulations section of the catalog. A transfer course may not be used to satisfy the General Education Global Challenges Requirement. While a transfer course may fulfill other degree requirements, students must enroll in a Clemson course(s) on the Global Challenges list to fulfill the Global Challenges Requirement.

[2]The Dietetics Emphasis is the only emphasis area within the B.S. in Food Science and Human Nutrition degree program to be accredited as a Didactic Program in Dietetics (DPD) by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®). Only students who complete the Dietetics Emphasis in accordance with the Dietetics Program Declaration of Intent and Verification Statement Policy (refer to FNPS undergraduate student handbook for details) are eligible to receive a Verification Statement. A Verification Statement is required for acceptance into an ACEND®-accredited Dietetic Internship (DI). Completion of a DPD + DI are required for eligibility to sit for the Registration Examination for Dietitians to become a Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN).

[3]To be accepted into the Dietetics Emphasis, students must meet a minimum GPA of 3.20, complete 60 credit hours, achieve a C or better in science and social science coursework and B or better in food science and nutrition coursework. Refer to the Dietetics Program Admission Policy in the FNPS undergraduate student handbook for details.

**IMPORTANT:** Make note of all pre-requisites and co-requisites associated with specific courses as indicated in the course catalog. If the curriculum is not followed as outlined, it may impair one's ability to progress through the curriculum or pass with a specified grade. Most courses within the major are offered one time per year as outlined above. If required courses are not taken at the appropriate time as outlined in the curriculum map, the student will assume the potential risk of not graduating on time.

# FOOD SCIENCE AND HUMAN NUTRITION MAJOR
# NUTRITION CONCENTRATION – EMPHASIS AREA COURSE LIST
## 2025-2026

Students who select the Nutrition Concentration are required to focus their program of study on one of four emphasis areas: (1) Dietetics; (2) Basic and Behavioral Science; (3) Community Health and Wellness; or (4) Food Industry. The Dietetics emphasis prepares students for an ACEND®-accredited dietetic internship program to become a Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN). The curriculum for the Nutrition Concentration with a Dietetics emphasis is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®) as a Didactic Program in Dietetics (DPD). The Basic and Behavioral Science emphasis prepares students for graduate study in nutrition and health professions. The Community Health and Wellness emphasis prepares students for careers in community nutrition interacting with healthy populations. The Food Industry emphasis allows students to pair nutrition and food science knowledge for job opportunities in food product development or food service management.

Each emphasis consists of 17 or 18 credits of coursework selected in consultation with one's academic advisor. Completion of 17 or 18 credits in an emphasis area is required for completion of the Nutrition Concentration. All Nutrition Concentration students regardless of emphasis area must complete 1 credit of professional development coursework, either NUTR 4180 Professional Development in Dietetics (dietetics emphasis only) or NUTR 4190 Professional Development in Nutrition. The remaining 16 or 17 credits in an emphasis area should be selected from the suggested emphasis area course list as outlined below. Additional courses not listed below may be applied to the emphasis area as approved by one's academic advisor, but the advisor does not have the final decision. The final decision will be approved by other faculty, such as the department chair and the associate dean of academics-CAFLS and dean-CAFLS. Students are encouraged to choose their emphasis area by the beginning of spring semester of the sophomore year to allow one to graduate in a timely manner. Completion of a Change of Academic Program form is required for officially declaring an emphasis area. **Check prerequisites for all classes.**

## DIETETICS EMPHASIS[1]

Students **must** complete each of the following courses:

**NUTR 4180 Professional Development in Dietetics[2] – 1**
FDSC 3060 Institutional Food Service Management – 3
NUTR 4070/4071 Quantity Food Production and Lab – 3
NUTR 4240 Medical Nutrition Therapy I – 3
NUTR 4250 Medical Nutrition Therapy II – 3
NUTR 4270 Nutrition Counseling – 2

**AND three additional credits selected from:**
HLTH 2020 Introduction to Public Health – 3
HLTH 2030 Overview of Health Care Systems – 3
HLTH 2600 Medical Terminology and Communication – 3
NUTR 2100 Nutrition and Physical Activity – 3
PSYC 3400 Lifespan Developmental Psychology – 3
PSYC 3830 Abnormal Psychology – 3

# FOOD SCIENCE AND HUMAN NUTRITION MAJOR
# NUTRITION CONCENTRATION – EMPHASIS AREA COURSE LIST (continued)
**2025-2026**

## BASIC AND BEHAVIORAL SCIENCE EMPHASIS

**NUTR 4190 Professional Development in Nutrition[3] – 1**
AGRB (HLTH) 3610 Introduction to Health Care Economics – 3
BIOL 4780 Exercise Physiology - 3
CH 2240/2280 Organic Chemistry and Lab – 4
FDSC 4500 Creative Inquiry – 1
GEN 3000 Fundamental Genetics – 3
*HLTH 2020 Introduction to Public Health[5] – 3
*HLTH 2030 Overview of Health Care Systems[5] – 3
HLTH 2600 Medical Terminology and Communication – 3
*HLTH 3800 Epidemiology[5] – 3
NUTR 2100 Nutrition and Physical Activity – 3
PHYS 2070/2090 Physics I and Lab – 4
PHYS 2080/2100 Physics II and Lab – 4
PSYC 3400 Lifespan Developmental Psychology[4] – 3
PSYC 3830 Abnormal Psychology[4]– 3
SOC 2010 Introduction to Sociology – 3
*SOC 3600 Social Class and Poverty – 3
STAT 3300 Statistical Methods II – 3

*Course must be taken online

## COMMUNITY HEALTH AND WELLNESS EMPHASIS

**NUTR 4190 Professional Development in Nutrition[3] – 1**
BIOL 2030 Human Disease & Society – 3
BIOL 4780 Exercise Physiology - 3
COMM 2090 Communication Across Media Platforms – 3
ELE 3010 Entrepreneurial Foundations[4] – 3
FDSC 4500 Creative Inquiry – 1
*HLTH 2020 Introduction to Public Health[5] – 3
*HLTH 2030 Overview of Health Care Systems[5] – 3
HLTH 2600 Medical Terminology and Communication – 3
HLTH 2980 Human Health and Disease – 3
*HLTH 3800 Epidemiology[5] – 3
MICR 4000 Public Health Microbiology – 3
MICR 4160 Introductory Virology – 3
MKT 3010 Principles of Marketing[4] – 3
NUTR 2100 Nutrition and Physical Activity – 3
PSYC 3400 Lifespan Developmental Psychology[4] – 3
PSYC 3450 Adulthood and Aging[4] – 3
PSYC 4800 Health Psychology[4] – 3
SOC 2010 Introduction to Sociology – 3
SOC 2020 Social Problems – 3
SOC 3600 Social Class and Poverty[4] – 3
STAT 3300 Statistical Methods II – 3

*Course must be taken online

## FOOD SCIENCE AND HUMAN NUTRITION MAJOR
## NUTRITION CONCENTRATION – EMPHASIS AREA COURSE LIST (continued)
**2025-2026**

## FOOD INDUSTRY EMPHASIS

**NUTR 4190 Professional Development in Nutrition[3] – 1**
FDSC 3070 Restaurant Food Service Management – 3
FDSC 4010 Food Chemistry I – 3
FDSC 4020 Food Chemistry II – 3
FDSC 4030 Food Chemistry & Analysis – 2
FDSC 4090 TQM Food & Package Industries – 3
FDSC 4100 Food Product Development – 4
FDSC 4500 Creative Inquiry – 1
NUTR 4070/4071 Quantity Food Production and Lab – 3

[1]To be accepted into the Dietetics Emphasis, students must meet a minimum GPA of 3.20, complete 60 credit hours, achieve a C or better in science and social science coursework and B or better in food science and nutrition coursework. Refer to the Dietetics Program Admission Policy in the department undergraduate student handbook for details.
[2]Required emphasis area course for all Dietetics emphasis students.
[3]Required emphasis area course for all Basic and Behavioral Science, Community Health and Wellness, and Food Industry emphasis students.
[4]CBBS course fee applies when taking this course.
[5]Completion of all three courses is required to obtain a Public Health Certificate (online) through the Department of Public Health Sciences. A minimum average GPR 2.5 for the three courses and course completion with a grade of D or better required

# FOOD SCIENCE AND HUMAN NUTRITION MAJOR
# NUTRITION CONCENTRATION – COURSE OFFERINGS, PRE-REQUISITES, AND CO-REQUISITES
## 2025-2026 Curriculum

| Course | Course Title | Credit Hr | Semesters Offered* *Subject to change | Prerequisite(s) | Co-requisite(s) | Honors Sections |
|---|---|---|---|---|---|---|
| BIOL 1030 | General Biology I | 3 | F, Su | | | Yes |
| BIOL 1040 | General Biology II | 3 | Sp, Su | BIOL 1030 & 1050 OR BIOL 1100 | | Yes |
| BIOL 1050 | General Biology I Laboratory | 1 | F, Su | | BIOL 1030 | |
| BIOL 1060 | General Biology Lab II | 1 | Sp, Su | | BIOL 1040 | |
| BIOL 2220 | Human Anatomy and Physiology I | 4 | F, Su | BIOL 1030 & 1050 OR BIOL 1100 & CH 1010 or CH 1050 | BIOL 2221 (lab) | |
| BIOL 2221 | Human Anatomy & Physiology I Lab | 0 | F, Su | | BIOL 2220 | |
| CH 1010 | General Chemistry | 4 | F, Sp, Su | SAT Math score ≥640 OR ACT Math score ≥27 OR MATH 1010, 1020, or 1030 with grade C or better OR | CH 1011 (lab) | Yes |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | MATH 1040, 1050, 1060, 1070, 1080, 2060, 2080, STAT 2300, or CH 1040 | | |
| **Course** | **Course Title** | **Credit Hr** | **Semesters Offered*** *Subject to change | **Prerequisite(s)** | **Co-requisite(s)** | **Honors Sections** |
| CH 1011 | General Chemistry Lab | 0 | F, Sp, Su | | CH 1010 | |
| CH 1020 | General Chemistry | 4 | F, Sp, Su | CH 1010 with grade C or better | CH 1021 (lab) | Yes |
| CH 1021 | General Chemistry Lab | 0 | F, Sp, Su | | CH 1020 | |
| CH 2230 | Organic Chemistry | 3 | F, Sp, Su | CH 1020 | | |
| CH 2270 | Organic Chemistry Lab | 1 | F, Sp, Su | | CH 2230 | |
| COMM 1500 | Intro to Human Communications | 3 | F, Sp, Su | | COMM 1501 – match class with lab section | |
| ECON 2000 | Economic Concepts | 3 | F, Sp, Su | | | |
| ECON 2110 | Principles of Micoeconomics | 3 | F, Sp, Su | | | |
| ECON 2120 | Principles of Macroeconomics | 3 | F, Sp, Su | ECON 2110 | | Yes |
| ENGL 1030 | Composition and Rhetoric | 3 | F, Sp, Su | | ENGL 1031 (lab) | Yes |
| ENGL 1031 | Composition and Rhetoric Lab | 0 | F, Sp, Su | | ENGL 1030 | |
| MATH 1020 | Business Calculus I | 3 | F, Sp, Su | SAT Math score ≥620 OR | MATH 1021 (lab) | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | ACT Math score ≥26 OR CMPT score ≥60 OR Any MATH or STAT course | | |
| **Course** | **Course Title** | **Credit Hr** | **Semesters Offered*** *Subject to change | **Prerequisite(s)** | **Co-requisite(s)** | **Honors Sections** |
| MATH 1060 | Calculus of One Variable I | 4 | F, Sp, Su | SAT Math score ≥680 OR ACT Math score ≥29 OR CMPT score ≥80 | | Yes |
| MGT 2010 | Principles of Management | 3 | F, Sp, Su | Sophomore Standing | | Yes |
| NUTR 1010 | Intro to Food Science and Nutrition | 1 | F | | | |
| NUTR 2030 | Intro to Principles of Human Nutrition | 3 | F, Sp, Su | | | |
| NUTR 2160 | Evidence-Based Nutrition | 2 | F | FDHN Major | | |
| PSYC 2010 | Introduction to Psychology | 3 | F, Sp, Su | | | Yes |

| Course | Course Title | Credit Hr | Semesters Offered* *Subject to change | Prerequisite(s) | Co-requisite(s) | Honors Sections |
|---|---|---|---|---|---|---|
| STAT 2300 | Statistical Methods I | 3 | F, Sp, Su | SAT Math score ≥620 OR ACT Math score ≥26 OR CMPT score ≥65 OR Any Math or Stat Course | STAT 2301 (lab) | Yes |
| STAT 2301 | Statistical Methods I Lab | 0 | F, Sp, Su | | STAT 2300 | |
| BIOL 2230 | Human Anatomy and Physiology II | 4 | Sp, Su | BIOL 2220 | BIOL 2231 (lab) | |
| BIOL 2231 | Human Anatomy & Physiology II Lab | 0 | Sp, Su | | BIOL 2230 | |
| NUTR 2040 | Nutrition Across the Life Cycle | 3 | Sp | FDHN Major AND NUTR 2030 | | |
| BCHM 3050 | Essential Elements of Biochemistry | 3 | F, Sp, Su | BIOL 1030, BIOL 1100, or BIOE 1010 AND pre-req or concurrent enrollment: CH 2010 or CH 2230 | | Yes |
| ACCT 2010 | Financial Accounting Concepts | 3 | F, Sp, Su | | | Yes |

| Course | Course Title | Credit Hr | Semesters Offered *Subject to change | Prerequisite(s) | Co-requisite(s) | Honors Sections |
|---|---|---|---|---|---|---|
| ACCT 2020 | Managerial Accounting Concepts | 3 | F, Sp, Su | ACCT 2010 | | Yes |
| MICR 3050 | General Microbiology | 3 | F, Sp, Su | Sophomore Standing and (CH 1010 and 1020, and BIOL 1030 and BIOL 1050, 1060), OR BIOL 1100; and one of the following: BE 2100, or BIOL 1040 and BIOL 1060, or BIOL 1110, or EES 2020 | MICR 3060 (lab) | |
| MICR 3060 | General Microbiology Laboratory | 1 | F, Sp, Su | Sophomore Standing and (CH 1010 and 1020, and BIOL 1030 and BIOL 1050, 1060), OR BIOL 1100; and one of the following: BE 2100, or BIOL 1040 and BIOL 1060, or BIOL 1110, or EES 2020 | MICR 3050 | |
| NUTR 3020 | Nutrition Assessment | 4 | F, Sp | BIOL 2230 NUTR 2030 | NUTR 3021 (lab) | |

| Course | Course Title | Credit Hr | Semesters Offered *Subject to change | Prerequisite(s) | Co-requisite(s) | Honors Sections |
|---|---|---|---|---|---|---|
| NUTR 3021 | Nutrition Assessment Laboratory | 0 | F,Sp | | NUTR 3020 | |
| NUTR 4510 | Human Nutrition and Metabolism I | 3 | F, Su | FDHN Major/Minor, NUTR 2030, AND one of BCHM 3050, BCHM 4060 or BCHM 4230 | | Yes |
| FDSC 4500 | Creative Inquiry | 1 to 6 | F, Sp | | | |
| NUTR 3010 | Food and Culture | 3 | Sp | FDHN Major AND Junior Standing AND NUTR 2030 | | |
| MICR 4070 | Food and Dairy Microbiology | 4 | Sp | MICR 3050 with a C or better AND BCHM 3050 OR CH 2230 OR CH 2010 | MICR 4071 (lab) | Yes |
| MICR 4071 | Food and Dairy Microbiology Lab | 0 | Sp | | MICR 4070 | |
| NUTR 4550 | Human Nutrition and Metabolism II | 3 | Sp, Su | BIOL 2220, 2230, AND NUTR 4510 | | Yes |
| NUTR 4180 | Professional Development in Dietetics | 1 | Sp | FDHN Major AND Junior Standing | | |
| NUTR 4190 | Professional Development in Nutrition | 1 | Sp | FDHN Major AND Junior Standing | | |
| ENGL(PCID) 3040 | Business Writing | 3 | F, Sp, Su | Junior Standing | | |
| ENGL(PCID) 3140 | Technical Writing | 3 | F, Sp, Su | Junior Standing | | Yes |
| NUTR 4260 | Community Nutrition | 3 | F, Sp | FDHN major/minor AND NUTR 2030 | | |

| Course | Course Title | Credit Hr | Semesters Offered *Subject to change | Prerequisite(s) | Co-requisite(s) | Honors Sections |
|---|---|---|---|---|---|---|
| FDSC 3060 | Institutional Food Service Management | 3 | F | FDHN Major | | |
| NUTR 4240 | Medical Nutrition Therapy I | 3 | F | FDHN major/minor, BIOL 2220, 2230, AND NUTR 4510 | | Yes |
| NUTR 4070 | Quantity Food Production | 3 | Sp | FDHN major/minor, FDSC 2010 (FNPS 2140), FDSC 3060, AND NUTR 2030 | NUTR 4071 (lab) | |
| NUTR 4071 | Quantity Food Production Lab | 0 | Sp | FDHN major/minor | NUTR 4070 | |
| NUTR 4250 | Medical Nutrition Therapy II | 3 | Sp | FDHN major/minor, BIOL 2220, BIOL 2230, AND NUTR 4240 | | Yes |
| NUTR 4270 | Nutrition Counseling | 2 | Sp | NUTR 4240 | | |
| NUTR 4950 | Senior Honors Research in Nutrition | 3 | F | Membership in Calhoun Honors College | NUTR 4951 | Yes |
| NUTR 4951 | Senior Honors Research in Nutrition Lab | 0 | F | Membership in Calhoun Honors College | NUTR 4950 | Yes |

| Course | Course Title | Credit Hr | Semesters Offered<br>*Subject to change | Prerequisite(s) | Co-requisite(s) | Honors Sections |
|---|---|---|---|---|---|---|
| NUTR 4960 | Senior Honors Research in Nutrition | 3 | Sp | Membership in Calhoun Honors College | NUTR 4961 | Yes |
| NUTR 4961 | Senior Honors Research in Nutrition Lab | 0 | Sp | Membership in Calhoun Honors College | NUTR 4960 | Yes |

Legend: F = Fall Semester, Sp = Spring Semester, Su = Summer
Note: Information in the table is subject to change. Refer to Courses of Instruction section in current *Undergraduate Catalog* for further information.

# ACADEMIC INTEGRITY

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

**I. Academic Integrity Policy**

A. Any breach of the principles outlined in the Academic Integrity Statement is considered an act of academic dishonesty.

B. Academic dishonesty is further defined as:

1. Giving, receiving, or using unauthorized aid, including the inappropriate use of electronic devices, on any work submitted to fulfill academic requirements. In examination situations all electronic devices must be off and stowed unless otherwise authorized by the instructor;

2. Plagiarism, which includes the intentional or unintentional copying of language, structure, or ideas of another and attributing the work to one's own efforts;

3. Attempts to copy, edit, or delete computer files that belong to another person or use of computer accounts that belong to another person without the permission of the file owner or account owner;

4. Failure to have an approved proctor during examinations. Instructors have final determination on personnel used for proctoring of examinations. Students in online courses may suggest potential proctors, however the instructor will decide on the location and personnel involved.

C. All academic work submitted for grading or to fulfill academic requirements contains an implicit pledge and may contain, at the request of an instructor, an explicit pledge by the student that no unauthorized aid has been received.

D. It is the responsibility of every member of the Clemson University community to enforce the Academic Integrity Policy.

**See full Academic Integrity Policy in the Academic Regulations section of the 2025-2026 Undergraduate Catalog.**

# COURSES IN
# FOOD SCIENCE (FDSC) AND NUTRITION (NUTR)

## FOOD SCIENCE

**FDSC 1020 Perspectives in Food and Nutrition Sciences (1)** Discussion course covering topics related to food science and human nutrition. Subjects include topics of current interest and involve familiarization with scientific literature in nutrition and food sciences. *Preq:* FDHN major or FDSC minor.

**FDSC 2150 Culinary Fundamentals (2)** Emphasizes the safe handling of food utilizing recognized procedures in equipment safety and sanitation. Cooking methods are investigated, along with ingredient functionality and flavor development. Organizational skills utilized in a real-world environment assist students in preparing, presenting and evaluating their finished products. *Preq:* FDHN major. *Coreq:* FDSC 2151.

**FDSC 2151 Culinary Fundamentals Laboratory (0)** Non-credit laboratory to accompany FDSC 2150. *Preq*: FDHN major. *Coreq*: FDSC 2150.

**FDSC 2160 Fundamentals of Baking Science (2)** Emphasizes the science of baking, ingredient functionality, formulas and Bakers Percentages, and various mixing methods used to produce an array of baked products. Organizational skills, utilized in a real world environment, assist students in preparing, presenting, and evaluating their finished products. *Preq:* FDHN major. *Coreq:* FDSC 2161

**FDSC 2161 Fundamentals of Baking Science Laboratory (0)** Non-credit laboratory to accompany FDSC 2160. *Preq:* FDHN major. *Coreq:* FDSC 2160.

**FDSC 2500 Culinary Science Internship (0)** Students experience the science and art of food preparation, with the ultimate object of improving the ease of manufacture as well as the overall quality and nutrition of the food produced. Students are able to observe, interact, and practice principles of culinary sciences. To be taken Pass/No Pass only. *Preq:* FDSC 2150.

**FDSC 3010 Food Regulation and Policy (3)** Introduction to origin and practice of food laws and regulations in the United States and other countries. Regulatory agencies (FSIS, FDA, EPA, etc.) are covered, as well as globalization and the impact of the Food Safety Modernization Act (FSMA) on the import and export of food products. (Global Challenge)

**FDSC 3040 Evaluation of Dairy Products (2)** Emphasizes sensory evaluation of dairy products. Discusses basic principles of organoleptic evaluation, fundamental rules for scoring and grading dairy products; evaluation of all classes of dairy products based on established grades and score cards. *Preq:* FDHN major or FDSC minor; and STAT 2300. *Coreq:* FDSC 3041

**FDSC 3041 Evaluation of Dairy Products Laboratory (0)** Non-credit laboratory to accompany FDSC 3040. *Coreq:* FDSC 3040.

**FDSC 3060 Institutional Food Service Management (3)** Principles of management of resources in institutional food service systems. Emphasizes financial management, menu planning, principles of quantity food production, and safety and sanitation. *Preq:* FDHN major.

**FDSC 3070 Restaurant Food Service Management (3)** Essentials of successful operation of restaurants, including menu design and pricing, marketing, customer satisfaction, purchasing, kitchen operations, and employment relationships.

**FDSC 3500 Food Science Internship (0)** Summer internship offered by Food Science and Human Nutrition Department and the Clemson Micro-Creamery and Food Manufacturing Industries.

Students are able to observe, interact, and practice principles of food science within the food industry. To be taken Pass/No Pass only. *Preq:* FNPS 2140.

**FDSC 4010 Food Chemistry I (3)** Basic composition, structure, and properties of food and the chemistry of changes occurring during processing utilization. Includes Honors sections. *Preq:* BCHM 3050; FDHN major, or FDSC minor, or PKSC major or minor.

**FDSC 4020 Food Chemistry II (3)** Application of theory and procedures for quantitative and qualitative analysis of food ingredients and food products. Methods for protein, moisture, lipid, carbohydrate, ash, fiber, rancidity, color, and vitamin analyses and tests for functional properties of ingredients are examined. Includes Honors sections. *Preq:* FDSC 4010; FDHN major, or FDSC minor.

**FDSC 4030 Food Chemistry and Analysis (2)** Principles of analytical procedures and techniques used to quantitatively and qualitatively determine chemical composition of foods, and elucidate the physio-chemical properties of food materials. Labs provide experience in critical thinking, performing food analysis and analyzing data. *Preq*: FDSC 4010 and FDHN major or FDSC minor. *Coreq*: FDSC 4031.

**FDSC 4031 Food Chemistry and Analysis Laboratory (0)** Non-credit laboratory to accompany FDSC 4030. *Coreq*: FDSC 4030.

**FDSC 4040 Food Preservation and Processing (3)** Principles of food preservation applied to canning, dehydration, freezing, fermentation, irradiation, packaging, additives and extrusion, and the importance of plant sanitation and water treatment. *Preq:* FDHN major, or FDSC minor, or PKSC major or minor; and FDSC 4010 and MICR 3050 and one of PHYS 1220 or PHYS 2000 or PHYS 2070.

**FDSC 4060 Food Preservation and Processing Laboratory I (1)** Laboratory exercises on preservation methods, equipment utilized, and processes followed in food manufacture. *Preq or concurrent enrollment*: FDSC 4040.

**FDSC 4080 Food Process Engineering (4)** Study of basic engineering principles and their application in food processing operations. Emphasizes the relation between engineering principles and fundamentals of food processing. *Preq:* FDHN major or FDSC minor; and CH 1020 and FDSC 2140, one of MATH 1020 or 1060, and one of PHYS 1220 or PHYS 2000 or PHYS 2070. *Coreq:* FDSC 4081.

**FDSC 4081 Food Process Engineering Laboratory (0)** Non-credit laboratory to accompany FDSC 4080. *Coreq:* FDSC 4080.

**FDSC 4090 Total Quality Management for the Food and Packaging Industries (3)** Introduction to the principles of modern quality management emphasizing quality standards and issues and the practices necessary for food processing and packaging companies to survive in a customer-driven marketplace. May also be offered as PKSC 4090. *Preq:* STAT 2300

**FDSC 4100 Food Product Development (4)** A strategic and systems approach to integrated product development practices for developing new food products within a team setting. Focuses on the Stage-Gate process for moving from product idea to launch and application of sensory analysis techniques. *Preq:* FDHN major or FDSC minor and Junior standing, *Preq or concurrent enrollment*: FDSC 4030. *Coreq:* FDSC 4101.

**FDSC 4101 Food Product Development Laboratory (0)** Non-credit laboratory to accompany FDSC 4100. *Coreq:* FDSC 4100.

**FDSC 4170 Seminar (1)** Literature research and oral presentation of a current food science topic. *Preq:* FDHN major.

**FDSC 4180 Seminar (1)** Literature research and oral presentation of a current food science topic.

*Preq:* FDHN major.

**FDSC 4200 Special Topics in Food Science (1-3)** Special topics in food science not covered in other courses. May be repeated for a maximum of 12 credits, but only if different topics are covered. *Preq:* Consent of instructor.

**FDSC 4210, H4210 Special Problems in Food Science (1-4)** Independent research investigation in food science areas not conducted in other courses. May be repeated for a maximum of 12 credits. *Preq:* Consent of instructor.

**FDSC 4230 Food Safety Certifications (3)** Food safety training in nationally-recognized programs (ServSafe, HACCP, and FSMA). Covers food safety concepts associated with proper food handling and sanitation throughout the flow of food, hazard analysis, and risk-based preventive controls for human food regulation. Preq: Junior standing and Food Science and Human Nutrition major or Packaging Science major.

**FDSC 4300 Dairy Processing and Sanitation (3)** Processing, manufacture and distribution of fluid, frozen, cultured and other dairy products. Emphasizes sanitation in a commercial food processing plant environment, chemical and microbiological aspects, processing procedures, equipment operation, ingredient applications, formulation and functional properties. *Preq:* CH 1020; and either BIOL 1040 and 1060, or BIOL 1110. *Coreq:* FDSC 4301.

**FDSC 4301 Dairy Processing and Sanitation Laboratory (0)** Non-credit laboratory to accompany FDSC 4300. *Coreq*: FDSC 4300.

**FDSC 4500 Creative Inquiry—Food Science (1-6)** Individual or small team research experience in close collaboration with a faculty member. Expands undergraduate learning by application of the scientific method. Research is selected by the student with approval of faculty. May be repeated for a maximum of 10 credits.

**FDSC 4910 Practicum (1-4)** Supervised experiential opportunities in the food industry. May be repeated for a maximum of 12 credits. *Preq:* FDHN major, Junior standing, and consent of department chair.

**FDSC 4950 Senior Honors Research in Food Science (3)** With professor supervision, students select a well-defined research question, plan the experimental design, perform data collection and results analysis, and prepare a project summary. *Preq*: Membership in Calhoun Honors College. *Coreq*: FDSC 4951.

**FDSC 4951 Senior Honors Research in Food Science Laboratory (0)** Non-credit laboratory to accompany FDSC 4950. *Coreq*: FDSC 4950.

**FDSC 4960 Senior Honors Research in Food Science (3)** Students complete an advanced, mentored, two-semester research project under a single research advisor, culminating in an advisor approved honors thesis, in-depth written report or portfolio of work. An oral project summary presentation is required. *Preq*: Membership in the Clemson University Honors College. *Coreq*: FDSC 4961

**FDSC 4961 Senior Honors Research in Food Science Laboratory (0)** Non-credit laboratory to accompany FDSC 4960. Second semester of professor supervised research experience. *Preq*: Membership in the Clemson University Honors College. Coreq: FDSC 4960

**FDSC 6010 Food Chemistry I (3)** Basic composition, structure, and properties of food and the chemistry of changes occurring during processing utilization. Includes Honors sections. *Preq:* BCHM 3050 with a C or better, and consent of instructor.

**FDSC 6020 Food Chemistry II (3)** Application of theory and procedures for quantitative and qualitative analysis of food ingredients and food products. Methods for protein, moisture, lipid, carbohydrate, ash, fiber, rancidity, color, and vitamin analyses and tests for functional properties

of ingredients are examined. Includes Honors sections. *Preq:* BCHM 3050 with a C or better, and consent of instructor.

**FDSC 6030 Food Chemistry and Analysis (2)** Principles of analytical procedures and techniques used to quantitatively and qualitatively determine chemical composition of foods, and elucidate the physio-chemical properties of food materials. Labs provide experience in critical thinking, performing food analysis and analyzing data. *Preq*: A C or better in: BCHM 3050, BIOL 4340, and FDSC 2140; and consent of instructor. *Coreq*: FDSC 6031.

**FDSC 6031 Food Chemistry and Analysis Laboratory (0)** Non-credit laboratory to accompany FDSC 6030. *Preq:* Consent of instructor. *Coreq*: FDSC 6030.

**FDSC 6040 Food Preservation and Processing (3)** Principles of food preservation applied to flow processes, ingredient functions, and importance of composition and physical characteristics of foods related to their processing; product recalls and product development concepts. *Preq:* A C or better in: BCHM 3050, one of FDSC 2140 or FDSC 3010, and one of PHYS 1220 or PHYS 2000 or PHYS 2070; or consent of instructor.

**FDSC 6060 Food Preservation and Processing Laboratory I (1)** Laboratory exercises on preservation methods, equipment utilized, and processes followed in food manufacture. *Preq*: FDSC 4040 with a C or better.

**FDSC 6070 Quantity Food Production (2)** Principles of the production of food in quantity for use in food service systems. Emphasizes functions of components of foods and of ingredients in food, and focuses on the quality of the final product, on safe production of food, and on proper use of equipment. Coreq: FDSC 6071.

**FDSC 6071 Quantity Food Production Laboratory (0)** Non-credit laboratory to accompany FDSC 6070. Coreq: FDSC 6070.

**FDSC 6080 Food Process Engineering (4)** Study of basic engineering principles and their application in food processing operations. Emphasizes the relation between engineering principles and fundamentals of food processing. *Preq:* A C or better in: CH 1020 and FDSC 2140, one of MATH 1020 or MATH 1060, and one of PHYS 1220 or PHYS 2000 or PHYS 2070. *Coreq:* FDSC 6081.

**FDSC 6081 Food Process Engineering Laboratory (0)** Non-credit laboratory to accompany FDSC 6080. *Coreq:* FDSC 6080.

**FDSC 6090 Total Quality Management for the Food and Packaging Industries (3)** Introduction to the principles of modern quality management emphasizing quality standards and issues and the practices necessary for food processing and packaging companies to survive in a customer-driven marketplace.

**FDSC 6100 Food Product Development (4)** A strategic and systems approach to integrated product development practices for developing new food products within a team setting. Focuses on the Stage-Gate process for moving from product idea to launch and application of sensory analysis techniques. *Coreq:* FDSC 6101.

**FDSC 6101 Food Product Development Laboratory (0)** Non-credit laboratory to accompany FDSC 6100. *Coreq:* FDSC 6100.

**FDSC 6300 Dairy Processing and Sanitation (3)** Processing, manufacture and distribution of fluid, frozen, cultured and other dairy products. Emphasizes sanitation in a commercial food processing plant environment, chemical and microbiological aspects, processing procedures, equipment operation, ingredient applications, formulation and functional properties. *Preq:* A C or better in: BIOL 1040 and BIOL 1060 and CH 1020. *Coreq:* FDSC 6301.

**FDSC 6301 Dairy Processing and Sanitation Laboratory (0)** Non-credit laboratory to

accompany FDSC 6300. *Coreq*: FDSC 6300

## NUTRITION

**NUTR 1010 Introduction to Food Science and Human Nutrition (1)** Introductory course providing an overview of career opportunities in both food science and human nutrition disciplines. Provides an orientation to principles related to food and human nutrition.

**NUTR 2030 Introduction to Principles of Human Nutrition (3)** Study of nutrient functions and requirements, food choices, dietary adequacy, and role of nutrition in physical fitness. Deals with social and scientific issues; evaluation and interpretation of nutrition sources from government, private, academic, and the health care sectors.

**NUTR 2040 Nutrition Across the Life Cycle (3)** Using current evidence, course examines nutrition issues and requirements across the life cycle, including pre-conception, pregnancy, lactation, infancy, childhood, adolescence, adulthood, and aging. Methods of nutritional assessment for each stage of life are explored. *Preq*: NUTR 2030 and FDHN major

**NUTR 2050 Nutrition for Nursing Professionals (3)** Investigation of targeted general and clinical nutrition topics, including principles of nutrition, life-cycle nutrition, relationship of diet to health and disease, and the role of nursing professionals and nutrition. *Preq*: NURS major. *Preq or concurrent enrollment*: BIOL 2220.

**NUTR 2100 Nutrition and Physical Activity (3)** Topics include role of carbohydrates, fats, and proteins on energy utilization during exercise; altering body composition and improving fitness with diet and physical activity; importance of fluid intake on performance; effectiveness of dietary supplements and ergogenic aids; and choosing a diet appropriate for individual physical activity levels. *Preq:* BIOL 1200; and one of BIOL 1220 or BIOL 1230

**NUTR 2160 Evidence-Based Nutrition (2)** Introduction to research methods, ethics in research, and evidence-based nutrition guidelines within the profession of nutrition and dietetics. *Preq*: FDHN major.

**NUTR 3010 Food and Culture (3)** Study of global religions, cultures, traditions, and cuisines as they influence human diets, nutrient needs, health and disease, social interactions, and economic decisions. Students build cultural competency in diet-related client/patient interactions and interventions. *Preq:* NUTR 2030; Junior standing; and FDHN major.

**NUTR 3020 Nutrition Assessment (4)** Overview of health, nutrition, and physical assessment principles and methods used in nutrition research and clinical nutrition care. Emphasis is on dietary assessment, body composition, resting energy expenditure, biochemical testing, nutrition-focused physical exam, and physical performance testing. *Preq:* BIOL 2230 and NUTR 2030. *Coreq:* NUTR 3021.

**NUTR 3021 Nutrition Assessment Laboratory (0)** Non-credit laboratory to accompany NUTR 3020. *Coreq:* NUTR 3020.

**NUTR 4010 Fundamentals of Nutrition (3)** Biochemical and physiological fundamentals of nutrition applicable to man and domestic animals. Considers digestive processes and absorption and metabolism of carbohydrates, lipids, proteins, water, minerals, and vitamins. Discusses energy metabolism and comparative anatomy and physiology of digestive systems. Includes Honors sections. Offered fall semester only. Preq: BCHM 3050 or CH 2230. This 4000-level course has a 6000-level counterpart. Students should refer to the Graduate Catalog for the 6000-level description and requirements.

**NUTR 4070 Quantity Food Production (3)** Principles of the production of food in quantity for use in food service systems. Emphasis is placed on safe food preparation, proper use of

equipment, menu and recipe development, ingredient scaling and procurement, quality of meal produced, meal supervision, and financial and time management. *Preq:* FDHN major or FDSC minor; and FDSC 2010 and FDSC 3060 and NUTR 2030. *Coreq:* NUTR 4071.

**NUTR 4071 Quantity Food Production Laboratory (0)** Non-credit laboratory to accompany NUTR 4070. *Coreq:* NUTR 4070.

**NUTR 4180 Professional Development in Dietetics (1)** Provides the steps for dietetic internship application process; career development in the dietetics field; and concepts of professional standards. *Preq:* FDHN major and Junior standing.

**NUTR 4190 Professional Development in Nutrition (1)** Career development strategies to assist students pursuing professional or graduate degrees. The focus is on standards used for admission, application preparation, and what to do when admitted. *Preq:* FDHN major and Junior standing.

**NUTR 4200 Selected Topics in Nutrition (1-3)** Comprehensive study of special topics in nutrition not covered in detail or contained in other courses. Current developments in each area are stressed. May be repeated for a maximum of three credits, but only if different topics are covered. *Preq:* FDHN major and Senior standing.

**NUTR 4210 Special Problems in Nutrition (1-4)** Independent research investigation in nutrition. Special emphasis is on developing a research proposal, conducting the research, and reporting the findings. May be repeated for a maximum of six credits, but only if different topics are covered. *Preq:* FDHN major and Senior standing.

**NUTR 4240 Medical Nutrition Therapy I (3)** Principles of nutritional assessment, education, and counseling skills; development of medical nutrition therapy for individuals with obesity and eating disorders, gastrointestinal disorders, metabolic and renal disorders. Includes Honors sections. *Preq:* FDHN major or FDSC minor; and BIOL 2220 and BIOL 2230 and NUTR 4510.

**NUTR 4250 Medical Nutrition Therapy II (3)** Development of medical nutrition therapy for individuals with various disease states, including cardiovascular, hepatic, musculoskeletal, and neoplastic disorders. Also considers sociocultural and ethnic aspects of food consumption and alternative nutrition therapies. Includes Honors sections. *Preq:* FDHN major or FDSC minor; and BIOL 2220 and BIOL 2230, and NUTR 4240.

**NUTR 4260 Community Nutrition (3)** Study of fundamentals of nutrition care delivery in community programs beginning with assessment and problem identification and continuing through the development, implementation, and evaluation of nutrition intervention programs. *Preq:* FDHN major or FDSC minor and NUTR 4510.

**NUTR 4270 Nutrition Counseling (2)** Examination and application of nutrition counseling methods, theories and strategies needed to promote nutrition behavior change. Assessment and interpretation of client information, development of client goals, and evaluation of interventions are discussed. *Preq*: NUTR 4240.

**NUTR 4510 Human Nutrition and Metabolism I (3)** Concepts of metabolism fundamental to understanding human nutrition are examined. Bioenergetics as well as metabolism of carbohydrates, lipids, and amino acids are discussed. Includes Honors sections. *Preq:* FDHN major or FDSC minor; and NUTR 2030; and one of BCHM 3050 or BCHM 4060 or BCHM 4230.

**NUTR 4550 Human Nutrition and Metabolism II (3)** Concepts of metabolism fundamental to understanding human nutrition are examined. Bioenergetics related to the metabolism of vitamins and minerals, as well as physical activity and hormonal responses are discussed. Preq: BIOL 2220 and NUTR 4510. *Preq or concurrent enrollment*: BIOL 2230.

**NUTR 4950 Senior Honors Research in Nutrition (3)** With professor supervision, students select a well-defined research question, plan the experimental design, perform data collection and results analysis, and prepare a project summary. *Preq*: Membership in Calhoun Honors College. *Coreq*: NUTR 4951.

**NUTR 4951 Senior Honors Research in Nutrition Laboratory (0)** Non-credit laboratory to accompany NUTR 4950. *Coreq*: NUTR 4950.

**NUTR 4960 Senior Honors Research in Nutrition (3)** Continuation of NUTR 4950. Students complete an advanced, mentored, two-semester research project under a single research advisor, culminating in an advisor approved honors thesis, in-depth written report or portfolio of work. An oral project summary presentation is required. Preq: Membership in Calhoun Honors College. Coreq: NUTR 4961.

**NUTR 4961 Senior Honors Research in Nutrition Laboratory (0)** Non-credit laboratory to accompany NUTR 4960. *Coreq*: NUTR 4960.

**NUTR 6010 Fundamentals of Nutrition (3)** Biochemical and physiological fundamentals of nutrition applicable to man and domestic animals. Considers digestive processes and absorption and metabolism of carbohydrates, lipids, proteins, water, minerals, and vitamins. Discusses energy metabolism and comparative anatomy and physiology of digestive systems. Offered fall semester only. Preq: BCHM 3050, CH 2230, or consent of instructor.

**NUTR 6240 Medical Nutrition Therapy I (3)** Principles of nutritional assessment, education, and counseling skills; development of medical nutrition therapy for individuals with obesity and eating disorders, gastrointestinal disorders, metabolic and renal disorders. *Preq:* BIOL 2220 and BIOL 2230 and NUTR 4510; or consent of instructor.

**NUTR 6250 Medical Nutrition Therapy II (3)** Development of medical nutrition therapy for individuals with various disease states, including cardiovascular, hepatic, musculoskeletal, and neoplastic disorders. Also considers sociocultural and ethnic aspects of food consumption and alternative nutrition therapies. Includes Honors sections. *Preq:* BIOL 2220 and BIOL 2230, and NUTR 4240.

**NUTR 6260 Community Nutrition (3)** Study of fundamentals of nutrition care delivery in community programs beginning with assessment and problem identification and continuing through the development, implementation, and evaluation of nutrition intervention programs. *Preq:* NUTR 2030 and NUTR 4510

**NUTR 6510 Human Nutrition and Metabolism I (3)** Concepts of metabolism fundamental to understanding human nutrition are examined. Bioenergetics as well as metabolism of carbohydrates, lipids, and amino acids are discussed. *Preq:* NUTR 2030, and one of BCHM 3050 or BCHM 4060 or BCHM 4230.

**NUTR 6550 Human Nutrition and Metabolism II (3)** Concepts of metabolism fundamental to understanding human nutrition are examined. Bioenergetics related to the metabolism of vitamins and minerals, as well as physical activity and hormonal responses are discussed. Preq: BIOL 2220 and NUTR 4510. *Preq or concurrent enrollment*: BIOL 2230.

## OTHER FOOD RELATED COURSES

**PKSC 1010 Packaging Orientation (1)** Overview of the various principles and practices in packaging science, historical development, packaging as a career.

**PKSC 1020 Introduction to Packaging Science (2)** Considers functions of a package; materials, processes, and technology used in package development; and the relationship of packaging to the corporation, consumer, and society as a whole.

**FNPS 3680 Packaging and Society (3)** Study of the role of packaging in society as it specifically relates to the responsibilities of the packaging scientist in protecting people and the environment. Includes study of packaging and environmental regulations and guidelines currently in place to achieve these goals. Ability to make informed decisions and ethical judgments is an encompassing goal. Includes Honors sections.

**PKSC 4640 Food and Health Care Packaging Systems (4)** Characteristics, engineering properties, and applications of various materials and systems used in the packaging of foods, pharmaceuticals, and medical devices. Packaging systems for specific food and medical applications are considered. Laboratory and field exercises on food and medical packaging operations and packaging materials are included. Emphasis is on evaluation methods. Includes Honors sections. Preq: PKSC major or FDHN major; and either FDSC 4170 or all three of PKSC 1020 with a grade of C or better and PKSC 2010 with a grade of C or better and PKSC 2040 with a grade of C or better. Coreq: PKSC 4641.

# FOOD SCIENCE & TECHNOLOGY

# CONCENTRATION

# FOOD SCIENCE AND TECHNOLOGY CONCENTRATION

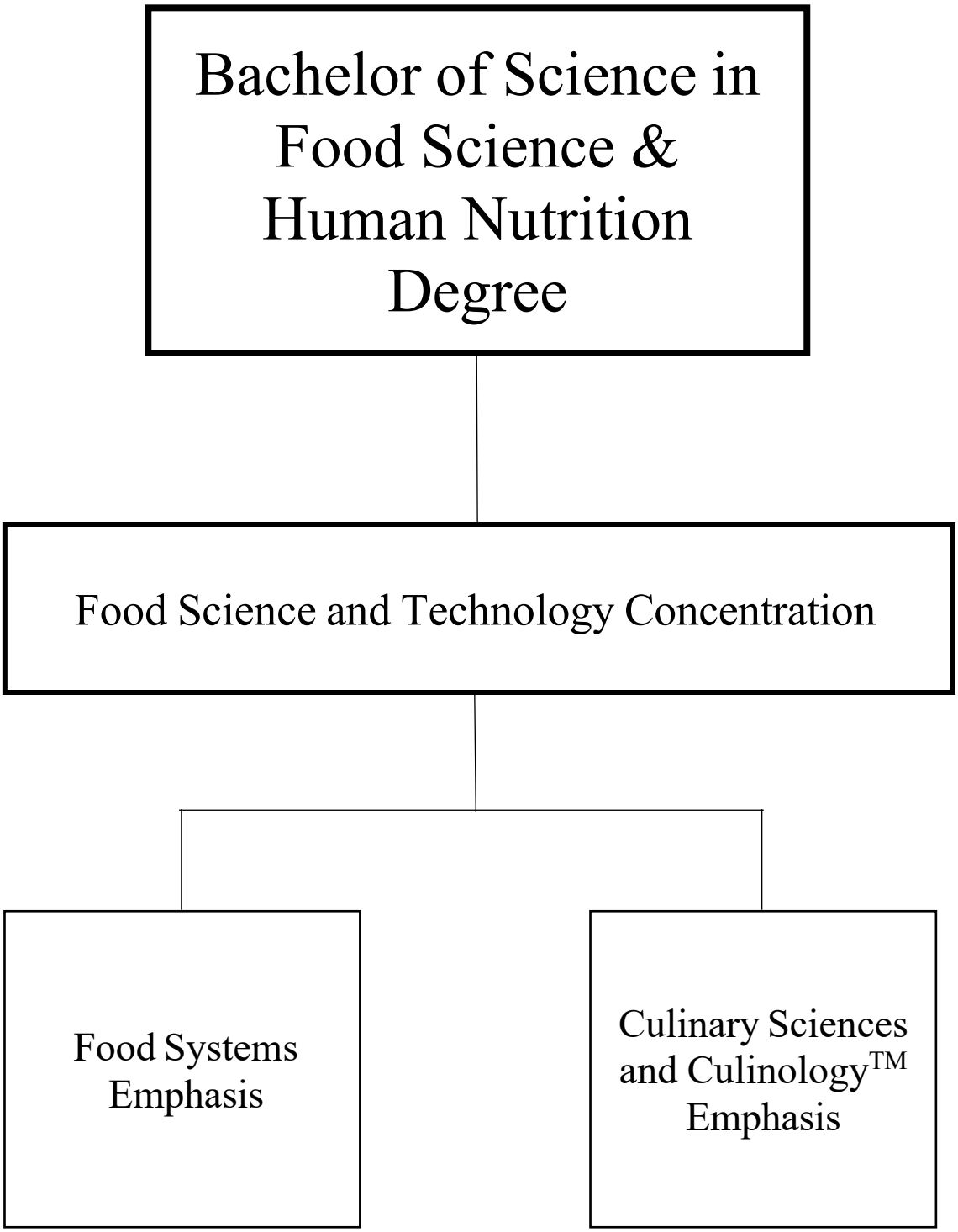
## Emphasis Areas

**(choose one of the following)**

### 1. Food Systems
### 2. Culinary Sciences and Culinology™

## EMPHASIS AREA COURSE REQUIREMENTS

- Select Emphasis Area As Soon As Possible
- A Minimum of 12 Credit Hours Required
- Courses Taken for Major Cannot Be Used for Emphasis Area Credit


Bachelor of Science in Food Science & Human Nutrition Degree
Food Science and Technology Concentration
Food Systems Emphasis
Culinary Sciences and Culinology™ Emphasis

# IFT Undergraduate Education Standards for Degrees in Food Science

## Definition of the Field of Study

**Food Science** is the discipline in which the engineering, biological, and physical sciences are used to study the nature of foods, the causes of deterioration, the principles underlying food processing, and the improvement of foods for the consuming public.

**Food Technology** is the application of food science to the selection, preservation, processing, packaging, distribution, and use of safe, nutritious, and wholesome food.

In practice, the terms food science and food technology are often used interchangeably.

## Objectives

The primary objective of the educational program of the Institute of Food Technologists (IFT) (www.ift.org) is the professional development of food scientists. To this end, IFT has developed these Education Standards to provide assistance to colleges and universities for evaluating the effectiveness of academic selection, guidance, and preparation of undergraduate students. The IFT Executive Committee has adopted these Education Standards as the core competencies required of all undergraduate food science students.

Application of these education standards is intended to promote continued excellence in food science education. Students with the skills designated by these standards will have the foundation for continued professional development. It is the intent of these standards to foster rigorous scientific training and to develop professional skills for students enrolled in a Bachelor of Science food science curriculum.

### Core Competencies in Food Science

| Core competency | Content | By the completion of food science program, the student should: |
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| **Food Chemistry and Analysis** | • Structure and properties of food components, including water, carbohydrates, protein, lipids, other nutrients and food additives | • Understand the chemistry underlying the properties and reactions of various food components |

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| | • Chemistry of changes occurring during processing, storage and utilization | • Have sufficient knowledge of food chemistry to control reactions in foods.<br>• Understand the major chemical reactions that limit shelf life of foods.<br>• Be able to use the laboratory techniques common to basic and applied food chemistry. |
| | • Principles, methods, and techniques of qualitative and quantitative physical, chemical, and biological analyses of food and food ingredients. | • Understand the principles behind analytical techniques associated with food.<br>• Be able to select the appropriate analytical technique when presented with a practical problem.<br>• Demonstrate practical proficiency in a food analysis laboratory. |
| **Food Safety and Microbiology** | • Pathogenic and spoilage microorganisms in foods | • Identify the important pathogens and spoilage microorganisms in foods and the conditions under which they will grow.<br>• Identify the conditions under which the important pathogens are commonly inactivated, killed or made harmless in foods.<br>• Utilize laboratory techniques to identify microorganisms in foods. |
| | • Beneficial microorganisms in food systems | • Understand the principles involving food preservation via fermentation processes. |
| | • Influence of the food system on the growth and survival of microorganisms | • Understand the role and significance of microbial inactivation, adaptation and environmental factors (i.e., aW, pH, temperature) on growth and response of microorganisms in various environments. |

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| | • Control of microorganisms | • Be able to identify the conditions, including sanitation practices, under which the important pathogens and spoilage microorganisms are commonly inactivated, killed or made harmless in foods. |
| **Food Processing and Engineering** | • Characteristics of raw food material | • Understand the source and variability of raw food material and their impact on food processing operations. |
| | • Principles of food preservation including low and high temperatures, water activity, etc. | • Know the spoilage and deterioration mechanisms in foods and methods to control deterioration and spoilage.<br>• Understand the principles that make a food product safe for consumption. |
| | • Engineering principles including mass and energy balances, thermodynamics, fluid flow, and heat and mass transfer | • Understand the transport processes and unit operations in food processing as demonstrated both conceptually and in practical laboratory settings.<br>• Be able to use the mass and energy balances for a given food process.<br>• Understand the unit operations required to produce a given food product. |
| | • Principles of food processing techniques, such as freeze drying, high pressure, aseptic processing, extrusion, etc. | • Understand the principles and current practices of processing techniques and the effects of processing parameters on product quality. |
| | • Packaging materials and methods | • Understand the properties and uses of various packaging materials. |
| | • Cleaning and sanitation | • Understand the basic principles and practices of cleaning and sanitation in food processing operations. |

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| | • Water and waste management | • Understand the requirements for water utilization and waste management in food and food processing. |
| **Applied Food Science** | • Integration and application of food science principles (food chemistry, microbiology, engineering/processing, etc.) | • Be able to apply and incorporate the principles of food science in practical, real-world situations and problems. |
| | • Computer skills | • Know how to use computers to solve food science problems. |
| | • Statistical skills | • Be able to apply statistical principles to food science applications. |
| | • Quality assurance | • Be able to apply the principles of food science to control and assure the quality of food products. |
| | • Analytical and affective methods of assessing sensory properties of food utilizing statistical methods | • Understand the basic principles of sensory analysis. |
| | • Current issues in food science | • Be aware of current topics of importance to the food industry. |
| | • Food laws and regulations | • Understand government regulations required for the manufacture and sale of food products. |
| **Success Skills** | • Communication skills (i.e., oral and written communication, listening, interviewing, etc.) | • Demonstrate the use of oral and written communication skills. This includes such skills as writing technical reports, letters and memos; communicating technical information to a nontechnical audience; and making formal and informal presentations. |

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| • Critical thinking/problem solving skills (i.e., creativity, common sense, resourcefulness, scientific reasoning, analytical thinking, etc.) | • Define a problem, identify potential causes and possible solutions, and make thoughtful recommendations.<br>• Apply critical thinking skills to new situations. |
| • Professionalism skills (i.e., ethics, integrity, respect for diversity) | • Commit to the highest standards of professional integrity and ethical values.<br>• Work and/or interact with individuals from diverse cultures. |
| • Life-long learning skills | • Explain the skills necessary to continually educate oneself. |
| • Interaction skills (i.e., teamwork, mentoring, leadership, networking, interpersonal skills, etc.) | • Work effectively with others.<br>• Provide leadership in a variety of situations.<br>• Deal with individual and/or group conflict. |
| • Information acquisition skills (i.e., written and electronic searches, databases, Internet, etc.) | • Independently research scientific and nonscientific information.<br>• Competently use library resources. |
| • Organizational skills (i.e., time management, project management, etc.) | • Manage time effectively.<br>• Facilitate group projects.<br>• Handle multiple tasks and pressures. |

# NUTRITION CONCENTRATION

# NUTRITION CONCENTRATION

**Introduction**

Nutrition is a fast-growing discipline devoted to understanding the relationship between nutrients and human health. The nutrition concentration allows students to focus their program of study in one of four emphasis areas: (1) Dietetics; (2) Basic and Behavioral Science; (3) Community Health and Wellness; or (4) Food Industry. The Dietetics emphasis prepares students for an ACEND®-accredited dietetic internship program to become a Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN). The curriculum for the Nutrition Concentration with a Dietetics emphasis is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®) as a Didactic Program in Dietetics (DPD). The Basic and Behavioral Science emphasis prepares students for graduate study in nutrition and health professions. The Community Health and Wellness emphasis prepares students for careers in community nutrition interacting with healthy populations. The Food Industry emphasis allows students to pair nutrition and food science knowledge for job opportunities in food product development and food service management. Each emphasis provides coursework to prepare students for evidence-based practice in their respective clinical, community, and management areas.

**Emphasis Area Selection**

For each emphasis area, the same course plan is followed the first two years with the junior and senior years varying according to the emphasis area. Students are encouraged to choose their emphasis area by the beginning of spring semester of the sophomore year to allow one to graduate in a timely manner. Completion of a Change of Academic Program form is required for officially declaring an emphasis area.

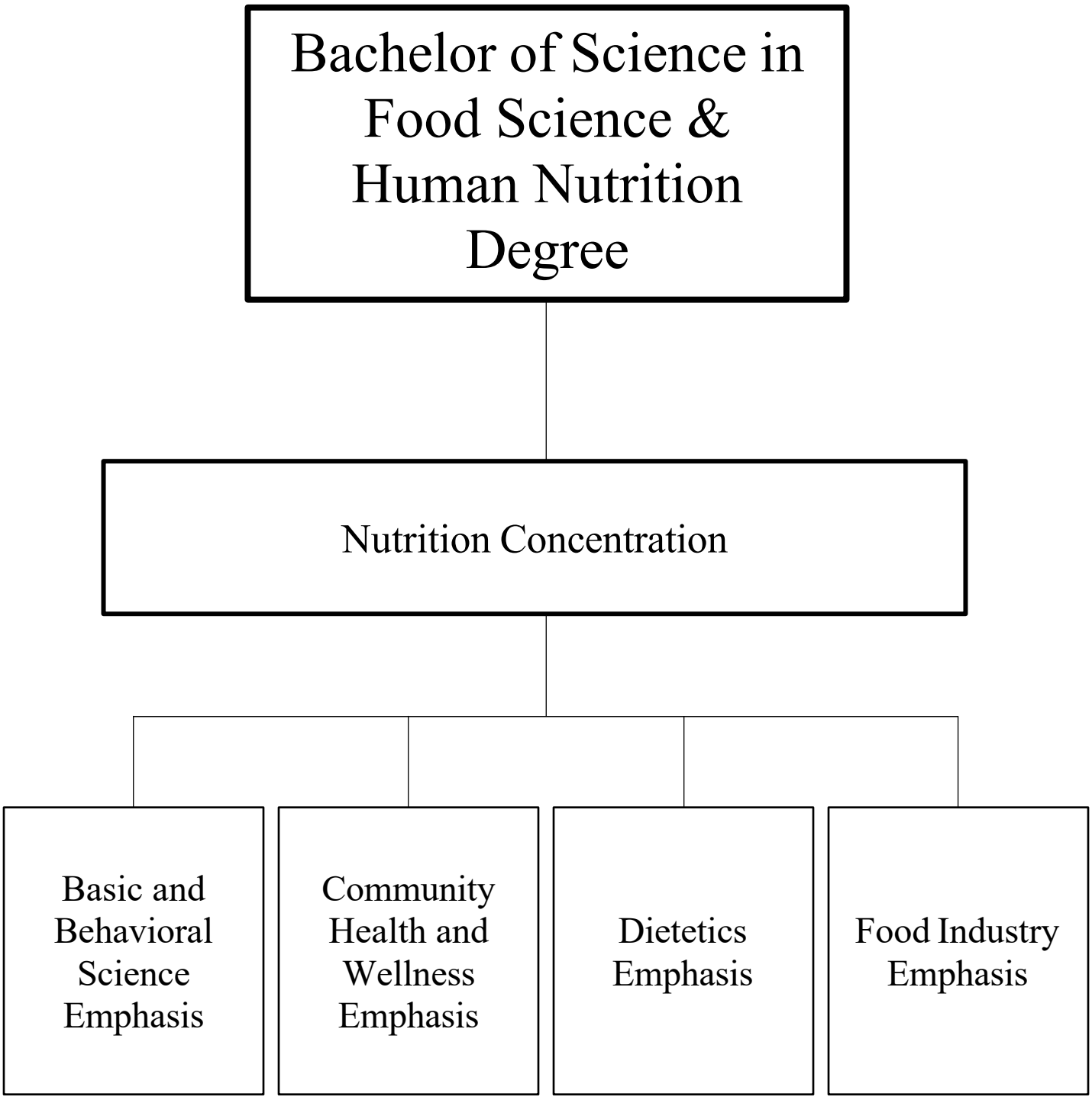
Students who select the Dietetics emphasis must complete a formal application process and meet specific criteria for acceptance into the emphasis (refer to the Dietetics Program Admission Policy for more details). The demand for dietetic internship appointments greatly exceeds the number of available positions. Due to the competitive nature of dietetic internship admission, minimum grade criteria in specific courses must be met for Dietetics emphasis acceptance. Two application times for admission into the Dietetics emphasis are available, one at the beginning of the spring semester and one at the beginning of the fall semester. Students must be formally admitted into the Dietetics emphasis before they are permitted to take coursework designated “Dietetics Emphasis Only.”

Acceptance into the Dietetics emphasis constitutes acceptance into the Clemson University Didactic Program in Dietetics (DPD); therefore, students accepted into the Dietetics emphasis are classified as students enrolled in the Clemson University DPD and are expected to follow all dietetics program policies. Only students who complete the Dietetics emphasis curriculum in accordance with the Dietetics Program Declaration of Intent and Verification Statement Policy will be eligible to receive a Verification Statement upon program completion. A Verification Statement is required for acceptance into an ACEND®-accredited dietetic internship following Clemson dietetics program completion. Acceptance and successful completion of the Dietetics emphasis curriculum will not guarantee acceptance into an ACEND®-accredited dietetic internship.

Students may select one of the other three emphasis areas (Basic and Behavioral Science, Community Health and Wellness, or Food Industry) without a formal application process or the requirement of meeting minimum acceptance criteria. Students who select one of these emphasis areas (Basic and Behavioral Science, Community Health and Wellness, or Food Industry) are not considered students enrolled in the Clemson University dietetics program and will not be eligible to receive a Verification Statement for acceptance into an ACEND®-accredited dietetic internship program.

**Emphasis Area Course Requirements**

Each emphasis consists of 17 or 18 credits of coursework selected in consultation with one's academic advisor. Completion of 17 or 18 credits in an emphasis area is required for completion of the Nutrition Concentration. All Nutrition Concentration students regardless of emphasis area must complete 1 credit of professional development coursework, either NUTR 4180 Professional Development in Dietetics (dietetics emphasis only) or NUTR 4190 Professional Development in Nutrition. The remaining 16 or 17 credits in an emphasis area should be selected from the suggested emphasis area course list or may be selected from other available courses as approved by one's academic advisor.


Bachelor of Science in Food Science & Human Nutrition Degree
Nutrition Concentration
Basic and Behavioral Science Emphasis
Community Health and Wellness Emphasis
Dietetics Emphasis
Food Industry Emphasis

# BASIC AND BEHAVIORAL SCIENCE EMPHASIS

The Basic and Behavioral Science emphasis is designed to provide students with pre-professional coursework in preparation for graduate training in nutrition science, biomedical sciences, medicine, and other healthcare-related fields. The curriculum provides a strong science and social science foundation to fulfill academic requirements for admission into graduate and professional healthcare programs.

Students interested in pursuing the Basic and Behavioral Science emphasis area in preparation for graduate training in medicine, dentistry, and allied health are encouraged to meet with a pre-professional advisor in the CAFLS Bookhart Student Services Center (http://www.clemson.edu/science/departments/pre-health/) in addition to their assigned academic advisor within the Department of Food, Nutrition, and Packaging Sciences. The pre-professional advisors are specially versed in pre-professional academic and extracurricular requirements for acceptance into healthcare-related graduate programs.

Career opportunities for students who pursue the Basic and Behavioral Science emphasis area include research, education, and healthcare professions. With completion of an advanced degree, students may pursue careers in medicine (MD, DO, PA), dentistry, physical therapy, occupational therapy, pharmacy, and speech therapy, to name a few. Other opportunities include working in pharmaceutical and biomedical sales, public relations and consumer affairs, and healthcare organizations.

# COMMUNITY HEALTH AND WELLNESS EMPHASIS

The Community Health and Wellness emphasis is designed to provide students with coursework in preparation for careers working with generally healthy populations through non-profit, for-profit, and government community health and wellness programs. The curriculum provides a strong science and social science foundation for developing well-rounded professionals who are trained in evidence-based practice and are culturally competent.

Career opportunities for students who pursue the Community Health and Wellness emphasis include educating individuals, families and groups concerning nutrition practices intended to prevent disease and enhance health. Employment settings include community health programs, senior centers, Meals on Wheels, cooperative extension, public health agencies, non-profit organizations, worksite wellness programs, health and fitness centers, government programs (Women, Infants, and Children [WIC], National School Lunch Program [NSLP], Supplemental Nutrition Assistance Program [SNAP], Older Americans Programs, etc.), and international food organizations (Peace Corps, United Nations Food and Agriculture Organization, World Health Organization, etc.).

# FOOD INDUSTRY EMPHASIS

The Food Industry emphasis is designed for students who are interested in pairing nutrition and food science knowledge for job opportunities in food service management, food product development, and hospitality. The curriculum provides a strong science, nutrition, and food science foundation for developing well-rounded professionals prepared for today's demands in business and industry.

Career opportunities for students who pursue the Food Industry emphasis include food service management, food product development, food manufacturing, food distribution, food marketing, food sales, public relations and consumer affairs. Employment settings include school nutrition and food service; healthcare facilities; food production, manufacturing, and distribution companies; and government agencies such as the USDA and FDA.

# DIETETICS EMPHASIS
# Didactic Program in Dietetics – General Program Information

**Program Overview**
Clemson University's Didactic Program in Dietetics is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®) of the Academy of Nutrition and Dietetics. ACEND® is the Academy of Nutrition and Dietetics' accrediting agency for education programs preparing students for careers as registered dietitian nutritionists (RDN) or dietetic technicians, registered (DTR). ACEND® serves and protects students and the public by assuring the quality and continued improvement of nutrition and dietetics education programs.

ACEND® is recognized by the United States Department of Education as a Title IV gatekeeper. This recognition affirms that ACEND® meets national standards and is a reliable authority on the quality of nutrition and dietetics education programs. ACEND® is also a member of the Association of Specialized Professional Accreditors (ASPA) and abides by its code of good practice.

If you have questions about program accreditation, you may contact ACEND® at:

Accreditation Council for Education in Nutrition and Dietetics
Academy of Nutrition and Dietetics
120 South Riverside Plaza, Suite 2190
Chicago, IL 60606-6995
(800) 899-0040 ext. 5400
Email: acend@eatright.org
Website: www.eatright.org/ACEND

The DPD director is Dr. Bridgit D. Corbett, Ed.D., R.D.N, L.D. She is happy to answer any questions you have about Clemson's DPD program and to share data related to our accreditation process or status. Program outcomes data is available upon request. Her office is 219 Poole Agricultural Center (P&A), e-mail is bridgic@clemson.edu, and office phone is 864-656-8914.

**What is a Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN)?**
Registered Dietitian Nutritionists and Registered Dietitians are food and nutrition experts who have met the criteria to earn the credential of RDN or RD. While variations exist in the credential name, RDN and RD are equivalent legally protected credentials requiring the same steps for attainment. The following steps are required to earn the RDN or RD credential:

1. Complete a minimum of a bachelor's degree at a U.S. regionally accredited university or college and course work from an ACEND®-accredited Didactic Program in Dietetics (DPD), such as the program at Clemson University.
2. Complete a master's degree in nutrition or a related field.
3. Complete an ACEND®-accredited supervised practice program, e.g. Dietetic Internship (DI) or Individual Supervised Practice Pathway (ISPP). Internships are typically non-paid, 8-12 months in length and charge tuition. They are postbaccalaureate programs which provide a supervised clinical experience in a

health-care facility, community agency, and/or foodservice corporation to practice the role of a dietitian and meet the competencies of ACEND®. Programs may be two years or longer in length if coupled with a master's degree program. The ISPP requirements are the same as a DI and may be pursued if a student does match to a DI (contact Program Director for more details).

4. Successfully pass the Registration Examination for Dietitians administered by the Commission on Dietetic Registration (CDR).
5. Gain liscensure in the state of your practice, if applicable.
6. Maintain continuing professional education requirements.

For more information on the steps to become a RD or RDN, visit: https://www.eatrightpro.org/about-us/become-an-rdn-or-dtr/high-school-students/5-steps-to-become-a-registered-dietitian-nutritionist. For more information on ACEND®-accredited dietetic education programs and dietetic internship programs, visit https://www.eatrightpro.org/acend/accredited-programs/

**What is a Licensed Dietitian (LD) or Licensed Dietitian Nutritionist (LDN)?**
In addition to earning the national RD or RDN credential, many states (47 out of 50) have enacted dietetics certification and licensure laws which require individuals holding the title *dietitian* or *nutritionist* and practicing as a dietitian or nutritionist to either be certified or licensed in the state of practice. Many states provide dietetic licensure only to those who have earned the RD or RDN credential. State licensure is in addition to, separate from, and obtained after national credentialing as a RDN or RD. To learn more about state licensure and certification as a dietitian/nutritionist, visit: https://www.cdrnet.org/state-licensure.

**What career opportunities exist for a RD or RDN?**
Registered dietitians and registered dietitian nutritionists work in a wide variety of employment settings, including clinical/health care, community/public health, food service, business and industry, education, research, government agencies and private practice. Many work environments, particularly those in medical and health-care settings, require that an individual providing nutrition care to individuals and the public be credential as a RDN or RD. To learn more about career opportunities, salary and benefits, and job outlook for RDs and RDNs, visit https://www.eatrightpro.org/-/media/eatrightpro-files/career/become-an-rdn-or-dtr/becoming-a-registered-dietitian.pdf and http://www.bls.gov/ooh/healthcare/dietitians-and-nutritionists.htm.

**How does Clemson's Dietetics Program align with the steps for becoming a RD/RDN?**
Successful completion of Clemson University's B.S. in Food Science and Human Nutrition with a concentration in Nutrition and an emphasis in Dietetics fulfills the first step in the process to become a RDN or RD. To apply to an ACEND®-accredited dietetic internship (DI), students must complete a DPD and receive a Verification Statement (refer to the Dietetics Program Declaration of Intent and Verification Statement Policy for details). Clemson University does not offer an ACEND®-accredited DI program, so following Clemson DPD completion, students will need to complete a postbaccalaureate DI program outside of Clemson University. Application to a DI typically occurs the semester of graduation, which for most students is spring semester of the senior year. Completion of Clemson University's B.S. in Food Science and Human Nutrition with a concentration in

Nutrition and emphasis in Dietetics will not guarantee acceptance into an ACEND®-accredited supervised practice program.

Following successful completion of the supervised practice program, students are eligible to take the Registration Examination for Dietitians. If a student passes the exam, he/she will become a registered dietitian nutritionist or registered dietitian.

**How do I apply to an ACEND®-accredited Dietetic Internship?**
Application to an ACEND®-accredited supervised practice program, namely a dietetic internship (DI) is to complete a formalized application through the **Dietetic Internship Centralized Application System (DICAS)**. Students will submit applications based on the DI program due dates. Students will be notified on March 1 of their acceptance. Students will need to provide an acceptance response by March 15 to start in the Fall. Spring open enrollment begins with an applicant's deadline of no later than July 15th, 2025. Programs with openings should not have application due dates after this date. DICAS closes to applicants on July 31st, 2025. This is the last date applicants can make changes to an account already created. To learn more about the DI application visit: https://www.eatrightpro.org/acend/students-and-advancing-education/dietetic-internship-match-students/how-to-apply-for-a-dietetic-internship

**What is the acceptance potential into an ACEND®-accredited Dietetic Internship?**
The demand for dietetic internships, essential to becoming an RD or RDN, greatly exceeds the number of current internship slots. Therefore, an appointment for a dietetic internship is very competitive. Nationally during Spring 2019, 73% of students who applied to a DI through the computerized matching process received a match. For the 2018-2019 academic year, 95% of Clemson students who applied for a DI were accepted, which is above the national average. To be competitive for an internship appointment, it is important to maintain a solid GPA (typically 3.4 or greater) and obtain significant dietetics-related paid and volunteer experience (at least 200 hours prior to internship application). Achieving an acceptable GPA and obtaining volunteer and/or work experience does not guarantee placement in a dietetic internship, but failure to meet them will typically preclude placement. Many programs also require students to take the GRE® prior to application. Students are encouraged to take the GRE® either the summer before the senior year or fall of the senior year prior to DI application.

**What are the characteristics of a successful applicant for Dietetic Internships?**
Successfully securing a dietetic internship upon graduation begins long before a student's senior year. Although selection criteria vary among dietetic internship programs, common characteristics of applicants who receive appointments include:

- A cumulative GPA of 3.2 or higher (typically 3.4 or higher is recommended).
- A 3.2 GPA or higher in all Food Science and Nutrition courses.
- A 3.2 GPA or higher in all science and social science courses.
- A variety of quality paid and volunteer work experiences (*at least* 200 hours) that begins early in college. Consistent participation in a small number of experiences over many

weeks, months, and years is valued more highly than sporadic participation in multiple varied experiences.

- Strong letters of recommendation, including one from a program faculty member and one from a registered dietitian/registered dietitian nutritionist.
- Willingness to relocate.
- Leadership in campus, community, and professional organizations.

**How can I improve my chances of securing a Dietetic Internship appointment?**

- Investigate dietetic internships early to identify the specific admission criteria.
- Maintain a GPA of 3.2 or higher (typically 3.4 or higher is recommended).
- Join the Academy of Nutrition and Dietetics (AND) as a student member and attend state and district association meetings. Academy membership includes affiliate membership in the South Carolina Academy of Nutrition and Dietetics (SCAND). Only students who are members of AND and SCAND are eligible for national and state AND scholarships and awards! Student membership is only $58 per year. To learn more, visit: https://www.eatrightpro.org/membership/membership-types-and-criteria/student-member
- Join and actively participate in the Clemson University Nutrition Club.
- Participate in activities that demonstrate leadership – college/university clubs, sports, community service projects, organizations, etc.
- Obtain dietetics related work and/or volunteer experience to learn about the dietetics field. Students are encouraged to seek quality experiences in each of the three areas of dietetics practice: clinical, community, and food service.
  - Clinical – shadow and work with dietitians where they are employed in hospitals, physician offices, dialysis centers, diabetes self-management programs, weight management clinics and programs, pediatric clinics; consider clinical dietetics externship experiences (typically volunteer positions) at local healthcare systems.
  - Foodservice – K-12, college, restaurant, camp, long-term care, etc.
  - Community outreach and/or nutrition programs – free clinics, soup kitchens, food pantries, food banks, farmer's markets, community garden and gleaning programs, child and adult nutrition education cooking programs, school foodservice and summer feeding programs, etc.
  - Other nutrition- and healthcare-related paid and volunteer experiences.
- Get to know the Food Science and Human Nutrition faculty through office hours, Creative Inquiry & Undergraduate Research, club activities, creative inquiry, so they know you well enough to address your assets in letters of recommendation.
- Apply to more than one dietetic internship program – it is recommended that students apply to 3-5 programs.

- Apply to dietetic internship programs outside of South Carolina – be willing to relocate and/or apply to less competitive internship programs.

**How much does a Dietetic Internship cost?**
Both application to and completion of a dietetic internship costs money, often more than a student is initially expecting to pay. It is important to be aware of these costs in order to plan ahead.

During the dietetic internship application process, application fees are assessed at multiple points – during submission of application materials through the centralized application system called DICAS through separate program application fees in addition to DICAS application fees, and through college and university transcript request fees. Students applying to dietetic internships that either offer graduate credit or are combined with a graduate degree should expect to pay additional application and transcript request fees associated with graduate school application. Completion of the GRE® may be required.

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| DICAS Application Fees: | $ 50.00 | 1st application + $25 each additional application |
| DI Program Application Fee: | $ 75.00 | (average per program, varies by program) |
| Transcript Request Fee: | $ 12.00 | (Clemson) (varies by college/university) |
| GRE® | $ 205.00 | |

*The fee schedule is as of Fall 2023 and is subject to change.

Most dietetic internship programs require students to pay tuition in addition to paying for education and program materials such as textbooks, a lab coat, physical assessment equipment (i.e., stethoscope and pen light), immunizations, a criminal background check, health and drug screenings, and student professional liability insurance. Tuition and associated educational fees are determined by each program and vary by program. The average tuition for a dietetic internship without a graduate degree is $7500 to $10,000. Programs that offer graduate credit or are combined with a graduate degree cost $20,000 or more.

**Is a Master's degree required for becoming a RD or RDN?**
Currently, a Master's degree is required for becoming a RD or RDN e*ffective January 1, 2024. The Commission on Dietetic Registration (CDR) will require a minimum of a master's degree to be eligible to take the credentialing exam to become a registered dietitian nutritionist (RDN). For more information about this requirement visit CDR's website: **https://www.cdrnet.org/graduatedegree**. In addition, CDR requires that individuals complete coursework and supervised practice in programs accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Graduates who successfully complete the ACEND-accredited DPD program at Clemson University are eligible to apply to an ACEND-accredited supervised practice program.* A master's degree may be completed either before, during, or after a dietetic internship. Many dietetic internships offer graduate credit, graduate coursework, or a graduate degree concurrent with dietetic internship completion. To learn more about the new graduate degree eligibility requirement for becoming a RD/RDN, visit: https://www.cdrnet.org/new-graduate-degree-eligibility-requirement-effective-january-1-2024.

**Timeline for Successful Dietetic Internship Application – Preparation from Freshman through Senior Year**

| Recommendations for Securing a Dietetic Internship Match | Freshman/Sophomore Years | Junior Year | Senior Year |
|---|---|---|---|
| Attend seminars on the Dietetic Internship Application Process held each fall and spring semester. Notification is provided by the DPD Director via email, so check your inbox for meeting announcements. | ✓ | ✓ | ✓ |
| Maintain a GPA ≥3.2. (Preferably 3.4 or higher) | ✓ | ✓ | ✓ |
| Join the Academy of Nutrition and Dietetics (AND) as a student member. | ✓ | ✓ | ✓ |
| Join (for $15) and attend the Piedmont Dietetic Association (PDA) meetings. PDA is affiliated with the South Carolina Academy of Nutrition and Dietetics (SCAND). | ✓ | ✓ | ✓ |
| Become active in campus and community organizations/activities. | ✓ | ✓ | ✓ |
| Join and actively participate in the Clemson University Nutrition Club. | ✓ | ✓ | ✓ |
| Obtain food and nutrition related paid and/or volunteer experience – record all experiences including the learning opportunities and tasks completed, name and contact information of the supervisor, and the number of hours accrued. | ✓ | ✓ | ✓ |
| Take every opportunity to get to know the food science and human nutrition faculty and academic advisors. You will need recommendation letters from faculty for your internship application. | ✓ | ✓ | ✓ |
| Apply to the Dietetics Emphasis area – spring semester sophomore year preferred; Junior year is an option as well. | ✓ | | |
| Take NUTR 4180 – one-credit seminar course outlining the dietetic internship program application process (spring semester). | | ✓ | |

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| Begin reviewing the various dietetic internship programs through the AND website – http://www.eatrightpro.org/resources/career/become-an-rdn-or-dtr and the Applicant Guide to Supervised Practice (an electronic copy may be available from the DPD Director). | | ✓ | |
| **Recommendations for Securing a Dietetic Internship Match (cont.)** | **Freshman/Sophomore Years** | **Junior Year** | **Senior Year** |
| Increase active involvement and become a leader in the Clemson University Nutrition Club – run for office or chair a committee. | | ✓ | ✓ |
| Continue to research the various dietetic internship programs – call, email, and visit internships for additional information; attend any that offer an open house to learn more about specific programs. | | ✓ | ✓ |
| Narrow down your dietetic internship programs to 3-5 that match your interests, qualifications, and needs. Be flexible by applying to a few less competitive programs and programs located in different geographic locations. | | | ✓ |
| Check application deadlines for dietetic internship programs and graduate programs. Graduate program application may be due in December or January and dietetic internship program application is due February 15 (some may be earlier). | | | ✓ |
| Apply to dietetic internship programs and graduate programs. | | | ✓ |
| Notify the DPD Director and other program faculty of your acceptance status into either a dietetic internship or graduate school. Notification will help them best assist you with next steps in your education and career journey whether or not you receive a dietetic internship or graduate school appointment. | | | ✓ |

**What if I do not get a Dietetic Internship appointment?**
Because the selection process for acceptance into a dietetic internship program is competitive, even having a strong application packet does not guarantee an appointment. Students who do not receive an appointment in the match should see the DPD Director **immediately** about possible options. Two possible reasons for the failed match include: (1) the student was a qualified candidate, but the qualifications of other applicants were ranked higher or (2) the student's application did not meet all program qualifications due to insufficient preparation or documentation. If a student is not successful, it is recommended that he/she re-evaluate his/her situation by identifying strengths and weaknesses related to the application.

Some steps include:

- Consider second-round match options, including individualized supervised practice pathways (ISPPs).
- Evaluate how to improve or enhance one's qualifications.
- Look at other dietetic internship programs other than the ones to which one applied.
- Obtain and/or increase nutrition/dietetics related work experience.
- Reapply in the next computer matching cycle.
    - Apply to programs that receive a lower ratio of applicants to the number of available positions.
    - Do not limit yourself to one geographic region.
    - Contact the internship director to determine the qualifications and documentation needed to make your application competitive.
    - Research each program to make sure you are qualified.

The department faculty are interested and concerned about each student's future. We can be helpful in providing necessary support and assistance. If you are passionate about becoming a Registered Dietitian Nutritionist, do not give up!

# DIETETICS EMPHASIS
# Didactic Program in Dietetics – Mission, Goals, and Objectives

**Dietetics Program Mission**
The mission of the Didactic Program in Dietetics (DPD) is to produce graduates prepared to complete a supervised practice program leading to eligibility for the Commission on Dietetic Registration credentialing exam to become entry-level registered dietitian nutritionists, to become food and nutrition professionals, or to pursue additional educational opportunities. Graduates will be prepared to focus on service to their clients in South Carolina, the nation, and the world; to use evidence-based guidelines in their practices; and to contribute to the generation of knowledge.

**Dietetics Program Goals and Objectives**
To monitor progress on achievement of the program's mission, faculty members have identified program goals and objectives. The two overall program goals and the associated objectives are listed below.

**Goal 1**: Graduates will be prepared for careers as entry level nutrition and dietetics professionals in a variety of practice settings.

- Objective 1: At least 80% of graduates who take the Registration Examination for Dietitians will pass within one year following the first attempt.
- Objective 2: At least 80% of students enrolled the dietetics program will complete degree and program requirements within three years (150% of the program length).
- Objective 3: At least 75% of supervised practice directors responding to a survey will rate program graduate's preparation for supervised practice as "above average" or better using 5-point scale where 4 is "above average" .
- Objective 4: At least 80% of graduates who complete and ACEND- accredited supervised practice program will indicate that they "strongly agree" or "agree" that Clemson University's dietetic program prepared them for supervised practice.

**Goal 2**: Graduates will be prepared to succeed in one or more of the following: acceptance to a graduate program, acceptance to an ACEND-accredited supervised practice program or employment.

- Objective 1: Of program graduates, at least 50% will apply for admission to an ACEND-accredited supervised practice program within 12 months of completing program requirements.
- Objective 2: Of program graduates who apply to an ACEND-accredited supervised practice program, at least 50% are admitted within 12 months of graduation.
- Objective 3: Of program graduates who do not apply or were not accepted to an ACEND-Accredited supervised practice program, at least 75% will apply to professional or graduate school or secure nutrition, health, or food science-related employment within 12 months of program completion.
- Objective 4: Of program graduates who graduate in May , at least 80% will indicate they "strongly agree" or "agree" the program prepared them for a career in food, nutrition, or

dietetics.

To maintain accreditation, the DPD program must have in place a plan to assure students achieve certain knowledge and skills to prepare them for future practice. Below are the Core Knowledge Domains and the Foundation Knowledge Requirements outlined in the ACEND Accreditation Standards for Nutrition and Dietetics Didactic Programs which were effective June 1, 2022. Assignments in the various Nutrition and Food Science courses will provide the opportunity to achieve these knowledge requirements.

**Core Knowledge for the RD**

| Knowledge Requirement Domains | Knowledge Requirements in Dietetics and Nutrition (KRDN) |
|---|---|
| Domain 1. The curriculum must prepare students in the core knowledge of the Scientific and Evidence Base of Practice: Integration of scientific information and translation of research into practice. | 1.1 Students are able to demonstrate how to locate, interpret, evaluate and use professional literature to make ethical evidence-based practice decisions<br>1.2 Students are able to select and use current information technologies to locate and apply evidence-based guidelines and protocols.<br>1.3 Students are able to apply critical thinking skills. |
| Domain 2. The curriculum must include core knowledge of Professional Practice Expectations: Beliefs, values, attitudes and behaviors for the nutrition and dietetics practitioner level of practice. | 2.1 Students are able to demonstrate effective and professional oral and written communication and documentation.<br>2.2 Students are able to describe the governance of nutrition and dietetics practice, such as the Scope of Practice for the Registered Dietitian Nutritionist and the Code of Ethics for the Profession of Nutrition and Dietetics.<br>2.3 Students are able to discuss the impact of a public policy position on the nutrition and dietetics profession.<br>2.4 Students are able to discuss the impact of health care policy and different health care delivery systems on food and nutrition services.<br>2.5 Students are able to identify and describe the work of interprofessional teams and the roles of others with whom the registered dietitian nutritionist collaborates.<br>2.6 Students are able to demonstrate cultural humility, awareness of personal biases and an understanding of cultural differences as |

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| | they contribute to diversity, equity and inclusion.<br>2.7 Students are able to describe contributing factors to health inequity in nutrition and dietetics including structural bias, social inequities, health disparities and discrimination.<br>2.8 Students are able to participate in a nutrition and dietetics professional organization and explain the significant role of the organization.<br>2.9 Students are able to defend a position on issues impacting the nutrition and dietetics profession. |
| Domain 3. The curriculum must include core knowledge of Clinical and Client Services: Development and delivery of information, products, and services to individuals, groups, and populations. | 3.1 Students are able to use the Nutrition Care Process and clinical workflow elements to assess nutritional parameters, diagnose nutrition related problems, determine appropriate nutrition interventions and develop plans to monitor the effectiveness of these interventions.<br>3.2 Students are able to develop an educational session or program/educational strategy for a target population.<br>3.3 Students are able to demonstrate counseling and education methods to facilitate behavior change and enhance wellness for diverse individuals and groups.<br>3.4 Students are able to practice routine health screening assessments, including measuring blood pressure and conducting waived point-of-care laboratory testing (such as blood glucose or cholesterol).<br>3.5 Students are able to describe concepts of nutritional genomics and how they relate to medical nutrition therapy, health and disease.<br>3.6 Students are able to develop nutritionally sound meals, menus and meal plans that promote health and disease management and meet client's/patient's needs. |
| Domain 4. The curriculum must include core knowledge of Practice Management and Use of Resources: Strategic application of principles of management and systems in the | 4.1 Students are able to apply management theories to the development of programs or services. |

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| provision of services to individuals and organizations. | 4.2 Students are able to evaluate a budget/financial management plan and interpret financial data.<br>4.3 Students are able to demonstrate an understanding of the regulation system related to billing and coding, what services are reimbursable by third party payers, and how reimbursement may be obtained.<br>4.4 Students are able to apply the principles of human resource management to different situations.<br>4.5 Students are able to apply safety and sanitation principles related to food, personnel and consumers.<br>4.6 Students are able to explain the processes involved in delivering quality food and nutrition services.<br>4.7 Students are able to evaluate data to be used in decision-making for continuous quality improvement. |
| Domain 5. The curriculum must include core knowledge of Leadership and Career Management: Skills, strengths, knowledge and experience relevant to leadership potential and professional growth for the nutrition and dietetics practitioner. | 5.1 Students are able to perform self-assessment that includes awareness in terms of learning and leadership styles and cultural orientation and develop goals for self-improvement.<br>5.2 Students are able to identify and articulate one's skills, strengths, knowledge and experiences relevant to the position desired and career goals.<br>5.3 Students are able to practice how to self-advocate for opportunities in a variety of settings (such as asking for needed support, presenting an elevator pitch).<br>5.4 Students are able to practice resolving differences or dealing with conflict.<br>5.5 Students are able to promote team involvement and recognize the skills of each member.<br>5.6 Students are able to demonstrate an understanding of the importance and expectations of a professional in mentoring and precepting others. |

Support knowledge: knowledge underlying the requirements specified above.

- The food and food systems foundation of the dietetics profession must be evident in the curriculum. Course content must include the principles of food science and food systems, food preparation techniques and evaluation, modification and development of recipes, and menus and food products acceptable to diverse groups.
- The physical and biological science foundation of the dietetics profession must be evident in the curriculum. Course content must include organic chemistry, biochemistry, anatomy, physiology, genetics, microbiology, pharmacology, statistics, logic, nutrient metabolism, integrative and functional nutrition, and nutrition across the lifespan.
- The behavior and social science foundation of the dietetics profession must be evident in the curriculum. Course content must include cultural competence, concepts of human behavior and diversity, and psychology, sociology or anthropology.

# DIETETICS EMPHASIS
# Didactic Program in Dietetics – Policies and Procedures

Students enrolled in the Clemson University Didactic Program in Dietetics (DPD) are expected to comply with all Clemson University policies and procedures outlined in *Undergraduate Catalog (http://catalog.clemson.edu/index.php?catoid=21*) and the *Student Handbook* (https://www.clemson.edu/studentaffairs/student-handbook/ ). In addition to Clemson University policies, program specific policies have been developed in compliance with accreditation standards set forth by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®) and apply to all students enrolled in the DPD.

**Dietetics Program Admissions Policy**

A registered dietitian nutritionist (RDN) or registered dietitian (RD) is a food and nutrition expert who has completed multiple layers of education and training accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®) and credentialed by the Commission on Dietetic Registration (CDR). To become a RDN or RD, students must complete four steps. The steps include 1) completing a specially designed, ACEND®-accredited bachelor's degree curriculum; 2) completing an ACEND®-accredited supervised practice program; 3) completing a master's degree curriculum; and 4) passing the nationally-recognized Registration Examination for Dietitians administered by CDR. Successful completion of Clemson University's B.S. in Food Science and Human Nutrition with a concentration in Nutrition and emphasis in Dietetics fulfills only the first step of this three step process to become a RDN or RD. The Dietetics emphasis curriculum is an ACEND®-accredited Didactic Program in Dietetics (DPD).

Students who select the Dietetics emphasis must complete a formal application and meet specific criteria for acceptance. The demand for dietetic internship positions greatly exceeds the number of available positions. Due to the competitive nature of dietetic internship acceptance, minimum grade criteria in specific DPD courses are required for Dietetics emphasis acceptance. Acceptance and successful completion of the Dietetics emphasis curriculum will not guarantee acceptance into a dietetic internship, step 2 in the process of becoming a RDN or RD.

Two application times for admission into the Dietetics emphasis are planned, one at the beginning of the spring semester and one at the beginning of the fall semester. Students following the B.S. in Food Science and Human Nutrition with a concentration in Nutrition curriculum as freshmen are encouraged to apply during the spring semester of their sophomore year. Students who have transferred or changed their major into the program may apply during either the spring or fall semester based on when they attain the criteria for emphasis admission. Students must be formally admitted into the Dietetics emphasis before they are permitted to take coursework designated "Dietetics Emphasis Only." A delay in application once a student has achieved the admission criteria may result in additional semester(s) and a delay in graduation.

For Dietetics emphasis admission, students must meet the following criteria:

1. Documented attendance at a dietetics program information session discussing the steps to become a registered dietitian/registered dietitian nutritionist, held fall semester.
2. Complete a minimum of 60 credit hours by the end of the semester in which the student is applying.
3. Have a minimum cumulative GPA of 3.20.
4. Completed all biology and chemistry courses with a C or better.
5. Completed all nutrition courses with a B or better.
6. Complete the Dietetics Emphasis Application Form by the designated dates. See the DPD Program Director for yearly dates or website.

The DPD director will review the applications and make decisions concerning acceptance into the Dietetics emphasis. Students will normally receive notification through their Clemson University email regarding the status of his/her application prior to fall or spring advising and registration depending on the application and acceptance period. Students who meet all outlined criteria will be automatically accepted into the Dietetics emphasis. If a required course was taken elsewhere, it will be the student's responsibility to send an official transcript to the DPD director.

Students are allowed to apply up to two times. Therefore, a student should not apply until he or she is certain he or she has met or can meet the admission criteria, including completion of the required coursework. Upon acceptance into the Dietetic emphasis, students must complete the "Change of Academic Program" within iROAR to formalize selection of the "Dietetics" emphasis.

Once in the Dietetics emphasis, a student may complete the curriculum and graduate with a GPA ≥2.00. However, to receive a signed Declaration of Intent and/or Verification Statement, students must comply with the GPA, grade and other requirements indicated in the "Declaration of Intent and Verification Statement Policy".

**Withdrawal and Refund of Tuition and Fees**

Clemson University's Withdrawal Policy and Refund of Academic Fees Policy are followed when students withdraw from the dietetics program. Clemson University's Withdrawal Policy is available at https://www.clemson.edu/undergraduate-studies/withdrawal.html and in the Academic Regulations section of *Undergraduate Catalog*. Clemson University's Refund of

Academic Fees Policy is available at https://www.clemson.edu/finance/student-financials/refunds and in the Financial Information section of the *2025-2026 Undergraduate Catalog.*

**Scheduling and Program Calendar**
Clemson University's Academic Calendar is followed for dietetics program course scheduling, including vacations and holidays. Clemson University's Academic Calendar is available at https://www.clemson.edu/registrar/academic-calendars/.

**Protection of Privacy of Student Information**
The privacy of student information is protected in accordance with The Family Education Rights and Privacy Act (FERPA) as outlined in the Clemson University *Student Handbook* and *Undergraduate Catalog*. Policy information is available at https://www.clemson.edu/administration/ogc/selected-policies/ferpa.html and in the FERPA section of the *2025-2026 Undergraduate Catalog.*

**Access to Personal Files**
Student access to personal files is protected in accordance with The Family Education Rights and Privacy Act (FERPA) as outlined in the Clemson University *Student Handbook* and *Undergraduate Catalog*. Policy information is available at https://www.clemson.edu/academics/advising/advisors/ferpa.html and in the FERPA section of the *2025-2026 Undergraduate Catalog.*

**Access to Student Support Services**
Students enrolled in the dietetics program are provided access to a variety of student support services offered to all students at Clemson University. These services include, but are not limited to; academic success, career and professional development, computing and information technology, financial aid, mental health and counseling, health services, student disability, and testing. Information about each service may be accessed as listed below.

- Academic Success Center (ASC): http://www.clemson.edu/asc/
- Center for Career and Professional Development: https://career.sites.clemson.edu/
- Computing and Information Technology (CCIT): http://www.clemson.edu/ccit/
- Financial Aid: http://www.clemson.edu/financial-aid/
- Mental Health and Counseling Services: http://www.clemson.edu/campus-life/healthy-campus/mental-health/index.html
- Redfern Health Services: https://www.clemson.edu/campus-life/student-health/
- Student Accessibility Services (SAS): https://www.clemson.edu/academics/studentaccess/
- Test Proctoring Center (TPC): http://www.clemson.edu/academics/studentaccess/test-center.html

**Dietetics Program Insurance Policy**
Students enrolled in the dietetics program are expected to maintain personal health insurance coverage. A student health insurance plan may be purchased through the Student Insurance office in Redfern Health Center. Students enrolled in six or more on-campus credit hours during each fall and spring semester or three or more on-campus credit hours during each summer session are required to pay a student health fee to cover select professional health services in the

event of illness or injury. Information on the Student Health Fee is available at http://www.clemson.edu/campus-life/student-health/health-fee.html. Students enrolled in the dietetics program are not required to carry professional liability insurance, and the dietetics program does not purchase professional liability insurance for students.

**Dietetics Program Travel Policy**
The Department of Food, Nutrition, and Packaging Sciences purchases special risk accident insurance for students traveling in University vehicles for University-related travel (i.e., academic requirements and related events). Students are required to hold personal vehicle insurance when traveling in their personal vehicles. Policy information is available at http://www.clemson.edu/administration/risk/accident-insurance/.

**Dietetics Program Illness/Injury Policy**
A student enrolled in the dietetics program who becomes ill or injured while on Clemson University's main campus should seek medical attention through Redfern Health Center. A student who becomes ill or injured when Redfern Health Center is closed or while away from Clemson University's main campus (more than 30 miles) may be required to seek urgent care through an alternative facility. The Department of Food, Nutrition, and Packaging Sciences holds affiliation agreements with various facilities to which students travel for University-related business. These agreements make provisions for appropriate care should a student become ill or be injured while in that facility.

**Dietetics Program Complaint Policy**
A student enrolled in the dietetics program who has a formal academic complaint or appeal concerning the program or faculty should follow the informal or formal Clemson University grievance policies to resolve the issue. Dialogue should occur with relevant faculty (those directly involved in the complaint or appeal), the DPD Director, the Chair of the Department of Food, Nutrition, and Packaging Sciences, or the Dean of the College of Agriculture, Forestry, and Life Sciences. Information on grievance policies is available at https://www.clemson.edu/faculty-staff/faculty-senate/grievance.html. Information on the Academic Grievance Policy is available in the Academic Regulations section of the *2025-2026 Undergraduate Catalog.*

If the complaint is against the dietetics program, specifically as it relates to ACEND® accreditation standards, policies, or procedures, the student should discuss the complaint with the DPD Director. If the complaint directly involves the DPD Director or satisfactory resolution is unable to be sought through the DPD Director, the student should discuss the complaint with the Chair of the Department of Food, Nutrition, and Packaging Sciences. A written complaint should be completed for purposes of documentation. The written complaint should include:

- Student name and contact information (address, phone number, email address).
- The ACEND® standard, policies, or procedures being violated by the issue.
- The steps already taken to address the issue, including individuals involved.
- A succinct description of the complaint, including individuals involved.
- A succinct description of the outcome(s) desired in resolution.
- Signature of the complainant.

In the event that a student is unable to obtain grievance resolution through the above policies and procedures and the complaint relates to ACEND® accreditation standards, policies, or procedures, the student should submit the complaint in writing directly to ACEND®. Written complaints against the dietetics program should be submitted to ACEND® only after all other options with the program and institution for addressing the complaint have been exhausted. The procedure for filing a complaint with ACEND® against an accredited program may be found on ACEND®'s website at https://www.eatrightpro.org/acend/public-notices-and-announcements/filing-a-complaint-with-acend.

ACEND® may be contacted at: Accreditation Council for Education in Nutrition and Dietetics
120 South Riverside Plaza, Suite
2190 Chicago, IL 60606-6995
(800) 877-1600 ext. 5400
Email: acend@eatright.org
Website: www.eatright.org/ACEND

**Dietetics Program Assessment of Prior Learning Policy**
Clemson University's Transfer Credit Policy is followed regarding assessment of prior learning as it pertains to students enrolled in the dietetics program who have completed dietetics program coursework elsewhere. Information on the Transfer Credit Policy is available at https://www.clemson.edu/registrar/student-menu/transfer-credits.html and in the Academic Regulations section of the *2025-2026 Undergraduate Catalog.*

**Dietetics Program Assessment of Student Learning Policy**
Student learning is assessed in each course within the dietetics program as outlined in the course syllabus. The course syllabus is provided to students by the course instructor when the course commences. Student assessment is conducted periodically in each course through assignments, quizzes, exams, term papers, projects, or reports. At minimum a mid-term and end-of-term evaluation is made available to the student in accordance with the Clemson University policies for Mid-Term Evaluation, Final Examinations, and Grade Reports. Information regarding these policies is available in the Academic Regulations section of the *2025-2026 Undergraduate Catalog.*

**Dietetics Program Student Retention and Remediation Policy**
Students who receive less than 80% (B) on assignments/projects used to evaluate course-specific KRDNs are provided with remediation procedures (see student undergraduate handbook). The remediation process will also be discussed in the dietetic emphasis mandatory meeting.

Students who receive less than 80% on a major project or examination are required to redo the assignment and will be enrolled in a Special Topics Course where they will resubmit their assignment/project with provided instructions on improving their grade from the professor.

Nutrition faculty who teach courses including KRDNs will rotate overseeing this course if students are enrolled. Students who receive less than 80% on subsequent assignments/examinations are required to meet with the instructor to discuss a plan for improvement. During the meeting with their instructor, the student and instructor will need to sign a retention and remediation form to acknowledge their agreement.

The DPD program also follows guidelines set forth in the Clemson University retention/remediation policy. Appendix 4.1b provides evidence of the DPD retention/remediation policy.

The Clemson University Academic Eligibility Policy is followed regarding student retention and remediation. Information regarding the Academic Eligibility Policy is available at https://www.clemson.edu/academics/eligibility/ and in the Academic Regulations section of the *2025-2026 Undergraduate Catalog.*

**Dietetics Program Disciplinary/Termination Policy**

The Clemson University Academic Eligibility Policy and the Clemson University Student Code of Conduct are following student disciplinary/termination procedures. The Student Code of Conduct information is available in the *Student Handbook* at http://www.clemson.edu/studentaffairs/student-handbook/code-of-conduct/student_code_of_conduct.pdf.

**Dietetics Program Distance Learning Policy**
The DPD program at Clemson University employs online education modalities in a few courses during the summer-Introduction to Principals of Nutrition, Nutrition Metabolism I, and Nutrition Metabolism II. Therefore, students enrolled in the nutrition program must have access to technology that allows them to utilize Clemson Computing and Information Technology's (CCIT) supported services such as Clemson's Learning Management System (LMS), Canvas, email lists and attachments, video conferencing, and conference calls. Courses may be offered online synchronously, asynchronously, or in a hybrid format. In all instances, course resources are provided to students via Canvas. Access to online courses via Canvas, and other supported CCIT services, requires students to login with a Clemson University ID and password. Online testing is commonly monitored using a CCIT service, Respondus Lockdown Browser, to ensure academic integrity. Additional resources for distance instruction are available via Clemson Online at https://www.clemson.edu/online/.

**Dietetics Program Completion and Graduation Policy**
The Clemson University Graduation Requirements are followed regarding dietetics program completion and graduation. These requirements are outlined in the Academic Regulations section of the *2025-2026 Undergraduate Catalog.* Dietetics program completion and graduation is equivalent to completion of all Nutrition concentration and Dietetics emphasis course requirements as defined by one's declared catalog year in Degree Works and conferral of the B.S. in Food Science and Human Nutrition degree. Students are encouraged to complete all dietetics program and degree requirements within 150% of the program length (or 6 years) after enrolling in Clemson University; otherwise, additional coursework may be required to fulfill program and graduation requirements.

**Dietetics Program Declaration of Intent and Verification Statement Policy**
A Declaration of Intent form signed by the director of the Didactic Program in Dietetics (DPD) verifies the student's intent to complete the baccalaureate degree and/or ACEND® minimum academic requirements. This intent is based upon the courses that a student has already completed and the projected courses that the student has yet to complete. These remaining courses are documented on the Declaration of Intent form. This form is completed during the last semester of intended degree and dietetics program completion and allows students to apply for a dietetic internship during this final semester.

A Verification Statement is an official document signed by the director of the DPD certifying a student has successfully completed both a baccalaureate degree and the program's ACEND®-accredited dietetics coursework requirements. The Verification Statement can only be issued after a student has completed all degree and DPD course requirements. A signed Verification Statement is required for admission to a dietetic internship program.
Due to the competitive nature to secure a dietetic internship, specific criteria are required to receive a signed Declaration of Intent and/or Verification Statement through Clemson University's Didactic Program in Dietetics. Such standards will prepare students for the rigor and expectations of a dietetic internship.

To receive a signed Declaration of Intent and/or Verification Statement, a student must meet the following academic and professional requirements:

1. Earn a minimum of a baccalaureate degree from a U.S. regionally accredited college/university. Earning a B.S. in Food Science and Human Nutrition through Clemson University fulfills this requirement.
2. Complete all the academic requirements of a dietetics education program accredited by ACEND®. Completing all academic coursework required by Clemson University's B.S. in Food Science and Human Nutrition with a concentration in Nutrition and emphasis in Dietetics fulfills this requirement.
3. Demonstrate an overall minimum GPA of 3.0 based on all completed college coursework.
4. Complete all DPD-required NUTR and FDSC courses with a B or better. Students are allowed to have one "C" but not in Medical Nutrition Therapy.
5. Complete all other DPD-required coursework with a C or better.

6. Adhere to Clemson University's Academic Integrity Policy (see Academic Regulations in the 2025-2026 Undergraduate Catalog – http://catalog.clemson.edu/content.php?catoid=21&navoid=625#undergraduate-academic-integrity).
7. Be in good standing with Clemson University under the Student Code of Conduct (see http://www.clemson.edu/studentaffairs/student-handbook/code-of-conduct/).

Students may retake courses to achieve the above requirements to be eligible for a Verification Statement. Doing so may result in additional semester(s) and a delay in graduation.

Prior to graduation, the DPD director will contact students to request required information to verify that all of the stated criteria have been met for receiving a Declaration of Intent and/or Verification Statement. Students who took applicable DPD coursework elsewhere will be required to provide official transcripts from colleges/universities attended to verify course grades before a Verification Statement is issued to the student. Upon conferred graduation, completion of DPD requirements, and fulfillment of the above specified Verification Statement criteria, students will be mailed six original Verification Statements sent to the address provided by the student. An original copy of the Verification Statement will also be maintained in the department.

Receipt of a Verification Statement does not guarantee acceptance into an ACEND®-accredited dietetic internship program. Acceptance into an ACEND®-accredited dietetic internship program cannot be guaranteed.

# BACHELOR OF SCIENCE

# IN

# PACKAGING SCIENCE

## Curriculum

## and

## Course Descriptions

# PACKAGING SCIENCE CURRICULUM
## 2025-2026

FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL1030 General Biology I[1] | 3 | CH 1020/1021 General Chemistry | 4 |
| BIOL1050 General Biology Lab I[1] | 1 | GC 1020 Introduction to Digital Graphics | 2 |
| CH 1010/1011 General Chemistry | 4 | PKSC 1020 Intro to Packaging Science[2] | 2 |
| ENGL 1030/1031 Composition and Rhetoric | 3 | Oral Communication Requirement[3] | 3 |
| MATH 1060 Calculus of One Variable I | 4 | Social Science Requirement[3] | 3 |
| PKSC 1010 Packaging Orientation[2] | 1 | | 14 |
| | 16 | | |

SOPHOMORE YEAR

| First Semester[4] | | Second Semester[4] | |
|---|---|---|---|
| CH 2010 Survey of Organic Chemistry[5] | 3 | PKSC 2010 Packaging Perishable Products[2] | 3 |
| CH 2020 Survey of Organic Chemistry Lab[5] | 1 | PKSC 2040 Plastics, Glass, and Metal Packaging Materials and Containers[2,7] | 3 |
| PHYS 2070 General Physics I[6] | 3 | PKSC 2060 Container Systems Lab[2,7] | 1 |
| PHYS 2090 General Physics Lab I[6] | 1 | Arts & Humanities (Literature) Requirement[3] | 3 |
| PKSC 2020/2021 Cellulose Pkg Mat & Containers [2] | 4 | Breadth Requirement[8] | 4 |
| PKSC 2200/2201 Product/Pkg Design and Prototyping[2] | 4 | | 14 |
| | 16 | | |

CO-OP 1010 Cooperative Education[9] 0

JUNIOR YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| PCID 3140 Technical Writing | 3 | PKSC 3200/3201 Consumer Pkg Goods Devel[2] | 3 |
| GC 3020 Package Printing Fundamentals | 2 | FNPS 3680 Packaging & Society[2] | 3 |
| PKSC 4010 Packaging Machinery[2] | 3 | PKSC 4300/4301 Converting for Flexible Packaging[2] | 4 |
| PKSC 4040 Mechanical Properties of Packages & Principles of Protective Packaging[2,7] | 3 | PKSC 4400 Packaging for Distribution[2] | 3 |
| PKSC 4540 Product and Package Eval Lab[2,7] | 1 | STAT 2300/2301 Statistical Methods I | 3 |
| Breadth Requirement[8] | 3 | | 16 |
| | 15 | | |

SENIOR YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| PKSC 4050 Sustainable Packaging Systems | 3 | AGRB 2020 Agricultural Economics *or* | 3 |
| PKSC 4160/4161 Appl of Polymers in Packaging[2] | 4 | ECON 2110 Principles of Microeconomics | 3 |
| PKSC 4640/4641 Food & Health Care Pkg Syst[2] | 4 | PKSC 4030 Packaging Career Preparation[2,7] | 1 |
| Breadth Requirement[8] | 4 | PKSC 4200/4201 Package Design & Development[2,7] | 3 |
| | 15 | Arts & Humanities (Non-Lit) Requirement[3] | 3 |
| | | Breadth Requirement[8] | 4 |
| | | | 14 |

***Total Semester Hours – 120***

The Bachelor of Science degree in Packaging Science prepares students for careers in industries producing and utilizing packages for all types of products. Packaging is an essential part of industrialized economies, protecting, preserving, and helping to market products. The field of packaging is highly competitive and highly innovative, requiring an ever-increasing number of professional positions.

Opportunities for employment include a wide variety of career paths such as manufacturing, research and development, marketing, sales, design, purchasing, quality assurance, and customer services. Most career opportunities are in positions requiring technical knowledge combined with marketing and management skills.

The core curriculum assures graduates of having the skills and knowledge required by most entry-level packaging positions. Breadth requirement choices[8] or minors allow students to select courses to improve career preparation for specific industry segments including Distribution, Transportation and Engineering Technology; Food and Health Care Packaging; Materials; and Package Design and Graphics. Any University-approved minor may be completed (all required credits) in lieu of the breadth requirement.

[1] BIOL 1110 may be substituted for BIOL 1030 and BIOL 1050.

[2] Packaging Science majors are required to:
1. Complete FNPS 3680, PKSC 1020, PKSC 2010, PKSC 2020, PKSC 2040, PKSC 2060, and PKSC 2200 with a grade of C or better before being allowed to register for PKSC 4010, PKSC 4030, PKSC 4040, PKSC 4160, PKSC 4200, PKSC 4300, PKSC 4400, PKSC 4540, and PKSC 4640.
2. Earn a *C* or better in all PKSC courses in order to graduate.

[3] See General Education Requirements. Three of these credits must also satisfy the South Carolina REACH Act Requirement. See the South Carolina REACH Act Requirement in the Academic Regulations section.

[4] Students interested in minors or electives should take any prerequisites in the sophomore year.

[5] CH 2230 and 2270 may be substituted for CH 2010 and 2020.

[6] PHYS 1220 and 1240 may be substituted for PHYS 2070 and 2090.

[7] PKSC 2040 and PKSC 2060 must be taken concurrently. PKSC 4040 and PKSC 4540 must be taken concurrently. PKSC 4030 and PKSC 4200 must be taken concurrently.

[8] Select 15 credits from ACCT 2010, AGM 2050, AGM 4060, AGM 4600, BCHM 3050, BIOE 2010, BIOE 3020, BIOE 3200, BIOE 4010, BIOL 1040/BIOL 1060, BIOL 2220, CHE 3190, ECON 3140, ECON 3190, ENR 4290, EES 2010, EES 2020, ENSP 2000, ENSP 4000, FDSC 4010, FDSC 4020, FDSC 4040, FNPS 2140, GC 3460, GC 4060, GC 4070, GC 4510, LAW 3220, MATH 1080, MATH 2060, MGT 2010, MGT 3170, MGT 3030, MGT 4240, MICR 3050, MICR 4070, MKT 3010, MKT 3020, MSE 2100, MSE 3190, PHYS 2080, PHYS 2100, PHYS 2210, PHYS 2230, PKSC 4210, PKSC 4220, PKSC 4230, PKSC 4240, PKSC 4990, PKSC 8080, and STAT 8010. Any University-approved minor may be completed (all required credits) in lieu of the breadth requirement.

[9] At least one 15-week period of 40-hour weeks of Cooperative Education is required. A six-month period is preferred.
Two 10-week summer periods of 40-hour weeks with the same company is an option.

NOTE: A transfer course at the 3000/4000 level may not be used to satisfy the General Education Global Challenges Requirement. While a 3000/4000 level transfer course may fulfill other degree requirements, students must enroll in a Clemson course(s) on the Global Challenges list to fulfill the upper-level Global Challenges Requirement.

**Students changing majors into Packaging Science with 24 credits or more must:**
1. Have an overall minimum GPA of 2.0, **and**
2. Have completed four (4) of the following courses with an average GPA of 2.7:
   - BIOL 1030, BIOL 1040, CH 1010, CH 1020, MATH 1060 (or MATH 1040 and MATH 1070), PHYS 1220, PHYS 2070, PHYS 2080, PHYS 2210, ***AND***
3. Have completed PKSC 1020 with a grade of *C* or higher.

# PACKAGING SCIENCE CURRICULUM
**(2025-2026) 4.5 yr plans**

| FRESHMEN YEAR | FRESHMEN YEAR |
|---|---|
| Fall Semester | Spring Semester |
| PKSC 1010 Packaging Orientation*[1] ..... 1 | PKSC 1020 Intro to Packaging Science*[1] ..... 2 |
| BIOL1030 General Biology I.....3 | CH 1020/1021 General Chemistry.....4 |
| BIOL1050 General Biology Lab I .....1 | GC 1020 Introduction to Digital Graphics.....2 |
| CH 1010/1011 General Chemistry.....4 | Oral Communication Requirement[3] ..... 3 |
| ENGL 1030/1031 Composition and Rhetoric.....3 | Social Science Requirement*[2] ..... 3 |
| MATH 1060 Calculus of One Variable I.....4 | 14 |
| 16 | |
| **SOPHOMORE YEAR** | **SOPHOMORE YEAR** |
| Fall Semester*[3] | Spring Semester*[3] |
| PKSC 2020/2021 Cellulose Pkg Mat & Containers[1].. 4 | PKSC 2010 Packaging Perishable Products.....3 |
| PKSC 2200/2201 Product/Pkg Design and Proto.....4 | PKSC 2040 Container Systems*[1,5] ..... 3 |
| CH 2010 Survey of Organic Chemistry .....3 | PKSC 2060 Container Systems Lab*[1,5] ..... 1 |
| CH 2020 Survey of Organic Chemistry Lab.....1 | Arts & Humanities (Literature) Requirement.....3 |
| PHYS 2070 General Physics I and.....3 | Breadth Requirement[8] ..... 4 |
| PHYS 2090 General Physics Lab I.....1 | 14 |
| 16 | |

## Plan A: Co-op in Spring Semester Junior Year

| JUNIOR YEAR | JUNIOR YEAR |
|---|---|
| Fall Semester | Spring Semester |
| PKSC 4010 Packaging Machinery .....3<br>PKSC 4040 Mechanical Properties of Packages & Principles of Protective Packaging*[5] .....3<br>PKSC 4540 Product and Package Eval Lab*[5] .....1<br>GC 3020 Package Printing Fundamentals .....2<br>ENGL (PCID) 3140 Technical Writing .....3<br>Breadth Requirement[8] .....3<br>15 | CO-OP 1010 Cooperative Education*[4] ..... **0** |
| **SENIOR YEAR** | **SENIOR YEAR** |
| Fall Semester | Spring Semester |
| PKSC 4050 Sustainable Packaging Systems 3<br>PKSC 4160/4161 Appl of Polymers in Packaging4<br>PKSC 4640/4641 Food & Health Care Pkg Syst . 4<br>Breadth Requirement[8] .....4<br>15 | PKSC 3200/3201 Consumer Packaged Goods Development..... 3<br>FNPS 3680 Packaging & Society..... 3<br>PKSC 4300/4301 Converting for Flexible Pkg..... 4<br>PKSC 4400 Packaging for Distribution ..... 3<br>STAT 2300/2301 Statistical Methods I..... 3<br>16 |
| **SENIOR YEAR** | |
| Fall Semester | |
| PKSC 4030 Packaging Career Preparation .....1<br>PKSC 4200/4201 Package Design & Development .....3<br>AGRB 2020 Agricultural Economics or .....3<br>ECON 2110 Principles of Microeconomics .....3<br>Arts & Humanities (Non-Lit) Requirement .....3<br>Breadth Requirement[8] .....4<br>14 | |
| **Total Credits 120** | |

## Plan B: Co-op in Spring Semester Senior Year

| JUNIOR YEAR | JUNIOR YEAR |
|---|---|
| Fall Semester<br><br>PKSC 4010 Packaging Machinery .....3<br>PKSC 4040 Mechanical Properties of Packages & Principles of Protective Packaging*[5] .....3<br>PKSC 4540 Product and Package Eval Lab*[5] .....1<br>GC 3020 Package Printing Fundamentals.....2<br>PCID 3140 Technical Writing.....3<br>Breadth Requirement[8].....3<br>15 | Spring Semester<br><br>PKSC 3200/3201 Consumer Packaged Goods Development.....3<br>FNPS 3680 Packaging & Society.....3<br>PKSC 4300/4301 Converting for Flexible Pkg.....4<br>PKSC 4400 Packaging for Distribution .....3<br>STAT 2300/2301 Statistical Methods I.....3<br>16 |
| **SENIOR YEAR** | **SENIOR YEAR** |
| Fall Semester<br><br>PKSC 4050 Sustainable Packaging Systems 3<br>PKSC 4160/4161 Appl of Polymers in Packaging4<br>PKSC 4640/4641 Food & Health Care Pkg Syst. 4<br>Breadth Requirement[8].....4<br>15 | Spring Semester<br><br>CO-OP 1010 Cooperative Education*[4] ..... **0** |
| **SENIOR YEAR** | |
| Fall Semester<br><br>PKSC 4030 Packaging Career Preparation .....1<br>PKSC 4200/4201 Package Design & Development .....3<br>AGRB 2020 Agricultural Economics or .....3<br>ECON 2110 Principles of Microeconomics .....3<br>Arts & Humanities (Non-Lit) Requirement .....3<br>Breadth Requirement[8].....4<br>14 | |
| **Total Credits 120** | |

## Plan C: Co-op in Fall Semester Senior Year

| JUNIOR YEAR | JUNIOR YEAR |
|---|---|
| Fall Semester<br><br>PKSC 4010 Packaging Machinery .....3<br>PKSC 4040 Mechanical Properties of Packages & Principles of Protective Packaging*[5] .....3<br>PKSC 4540 Product and Package Eval Lab*[5] .....1<br>GC 3020 Package Printing Fundamentals.....2<br>PCID 3140 Technical Writing.....3<br>Breadth Requirement[8].....3<br>15 | Spring Semester<br><br>PKSC 3200/3201 Consumer Packaged Goods Development.....3<br>FNPS 3680 Packaging & Society.....3<br>PKSC 4300/4301 Converting for Flexible Pkg.....4<br>PKSC 4400 Packaging for Distribution .....3<br>STAT 2300/2301 Statistical Methods I.....3<br>16 |
| **SENIOR YEAR** | **SENIOR YEAR** |
| Fall Semester<br><br>CO-OP 1010 Cooperative Education*[4].....0 | Spring Semester<br><br>PKSC 4160/4161 Appl of Polymers in Packaging4<br>PKSC 4640/4641 Food & Health Care Pkg Syst . 4<br>Breadth Requirement[8].....4<br>12 |
| **SENIOR YEAR** | |
| Fall Semester<br><br>PKSC 4050 Sustainable Packaging Systems ..... 3<br>PKSC 4030 Packaging Career Preparation ..... 1<br>PKSC 4200/4201 Package Design & Development ..... 3<br>AGRB 2020 Agricultural Economics or..... 3<br>ECON 2110 Principles of Microeconomics ..... 3<br>Arts & Humanities (Non-Lit) Requirement ..... 3<br>Breadth Requirement[8].....4<br>17 | |
| **Total Credits 120** | |

# Packaging Science Course Offerings*

| | Fall | Spring | Summer |
|---|---|---|---|
| **PKSC 1010** (1) - Packaging Orientation – Marcondes<br>No preqs | X | | |
| **PKSC 1020** (2) - Introduction to Packaging Science - H Batt<br>No preqs; Fall-NO PKSC majors; only Non-majors, Bridge students or Change-of-Majors; Spring-PKSC only; then manual waitlist for GC and possible Change-of-Majors; ****Summer – Non-majors only** | X | X | X** |
| **PKSC 2010** (3) - Packaging Perishable Products - H Batt<br>preq: PKSC major/minor; preq or coreqs: PKSC 1020; and CH 2010 or CH 2230 | X | X | |
| **PKSC 2020/2021** (4) - Cellulose Packaging Materials and Containers - Marcondes<br>preq: PKSC major; PKSC 1020; lab coreq. PKSC 2021 is built-in. | X | X | |
| **PKSC 2040/2060** (4 total) - Container Systems (Rigid & Flexible) – Lecture: Marcondes / Lab: Campbell; prereq: PKSC major; PKSC 1020, 2020; coreq: PKSC 2060 (lab) | X | X | |
| **PKSC 2200/2201** (4) - Product/Package Design and Prototyping - Appleby<br>preq: PKSC major; PKSC 1020; lab coreq PKSC 2201 is built in. | X | X | X* |
| **PKSC 3200/3201** (3) - Consumer Packaged Goods Development - Hurley<br>preq: PKSC major; PKSC 1020, 2200; lab coreq PKSC 3201 is built-in. | X | X | |
| **FNPS 3680** (3) - Packaging and Society - H Batt; No preqs | | X | X* |
| **PKSC 4010** (3) - Packaging Machinery - Darby<br>preq: PKSC major or minor; PKSC 1020 and 2010 | X | | X* |
| **PKSC 4040/4540** (4 total) - Mechanical Properties - G Batt<br>preq: PKSC major; Junior standing; MATH 1060 or 1070; either PHYS 2070 or 1220; and PKSC 1020 and 2040 with a C or better; coreq: PKSC 4540 (lab) | X | | |
| **PKSC 4050/6050** – Sustainable Packaging Systems - Sternberg<br>preq: FNPS 3680 | X | | |
| **PKSC 4160/4161** (4) - Application of Polymers in Packaging - Campbell<br>preq: PKSC major; either PHYS 2070 or PHYS 1220; either CH 2010 or CH 2230; and PKSC 1020 and 2040/2060 with a C or better; lab coreq. PKSC 4161 is built-in. | X | X | |
| **PKSC 4300/4301** (4) - Converting for Flexible Packaging - Darby<br>preq: PKSC major; PKSC 1020 and 2040 with a C or better; lab coreq PKSC 4301 is built-in. | | X | |
| **PKSC 4400** (3) - Packaging for Distribution - Campbell<br>preq: PKSC major or minor; junior standing; MATH 1060 or 1070; PKSC 1020; and one of either PHYS 1220 or PHYS 2070 | X | X | X |
| **PKSC 4640/4641** (4) - Food and Health Care Packaging - Cooksey<br>preq: PKSC major; PKSC 1020, 2040, and 2010 with a C or better; lab coreq. PKSC 4641 is built-in. | X | X | |
| **PKSC 4200/4201** (3) and **PKSC 4030** (1) - Senior Capstone & E-portfolio – Appleby; preq: PKSC major; second semester senior standing; PKSC 1020 with a C or better, 3200, 3680, and 4400; preq or coreqs: PKSC 4010, 4040/4540, 4160, 4300, 4640; coreqs: PKSC 4030; lab coreq. PKSC 4201 is built-in. | X | X | |
| ALERT: Check for time conflict between PKSC 4030/PKSC 4200 and GC 3020 | | | |

***Information is subject to change and summer courses are subject to sufficient enrollment.**

****** Non-majors only**

# Packaging Science Courses – Tentative Schedule for Summer 2025**

| Summer Course | Long Summer | Summer Half 1 | Mini A | Mini B | Summer Half 2 | Mini C | Mini D |
|---|---|---|---|---|---|---|---|
| FNPS 3680<br>H Batt | | | | ASYNC<br>@ 8 | | | ASYNC<br>@ 8 |
| PKSC 4010/6010<br>Darby | | | SYNC | | | | |
| PKSC 4400/6400<br>Campbell | ASYNC | | | | | | |

****Information is subject to change and summer courses are subject to sufficient enrollment.**

# ACADEMIC INTEGRITY

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

**I. Academic Integrity Policy**

A. Any breach of the principles outlined in the Academic Integrity Statement is considered an act of academic dishonesty.

B. Academic dishonesty is further defined as:

1. Giving, receiving, or using unauthorized aid, including the inappropriate use of electronic devices, on any work submitted to fulfill academic requirements. In examination situations all electronic devices must be off and stowed unless otherwise authorized by the instructor;

2. Plagiarism, which includes the intentional or unintentional copying of language, structure, or ideas of another and attributing the work to one's own efforts;

3. Attempts to copy, edit, or delete computer files that belong to another person or use of computer accounts that belong to another person without the permission of the file owner or account owner;

4. Failure to have an approved proctor during examinations. Instructors have final determination on personnel used for proctoring of examinations. Students in online courses may suggest potential proctors, however the instructor will decide on the location and personnel involved.

C. All academic work submitted for grading or to fulfill academic requirements contains an implicit pledge and may contain, at the request of an instructor, an explicit pledge by the student that no unauthorized aid has been received.

D. It is the responsibility of every member of the Clemson University community to enforce the Academic Integrity Policy.

**See full Academic Integrity Policy in the Academic Regulations section of the 2025-2026 Undergraduate Catalog.**

# COURSES IN
# PACKAGING SCIENCE (PKSC)

**FNPS 3680 Packaging and Society (3)** Study of the role of packaging in society as it specifically relates to the responsibilities of the packaging scientist in protecting people and the environment. Includes study of packaging and environmental regulations and guidelines currently in place to achieve these goals. Ability to make informed decisions and ethical judgments is an encompassing goal. Includes Honors sections.

**PKSC 1010 Packaging Orientation (1)** Overview of the various principles and practices in packaging science, historical development, packaging as a career.

**PKSC 1020 Introduction to Packaging Science (2)** Considers functions of a package; materials, processes, and technology used in package development; and the relationship of packaging to the corporation, consumer, and society as a whole.

**PKSC 2010 Packaging Perishable Products (3)** Covers fundamental characteristics and applications of various materials and systems used to package perishable products such as foods and pharmaceuticals. Discusses packaging issues regarding food, pharmaceutical, and medical packaging. Includes product/package interactions and packaging requirements to address basic theory in food and pharmaceutical protection. *Preq:* PKSC major or minor. *Preq or concurrent enrollment:* One of CH 2010 or CH 2230; and PKSC 1020.

**PKSC 2020 Cellulose Packaging Materials and Containers (4)** Detailed study of packaging materials including glass, metal, metal foils and sheets, wood, paper, paperboard, plastics, composites, adhesives, coatings, cushioning media; their functional properties in packaging application; laminating and combining of different packaging materials. *Preq:* PKSC 1020 and PKSC major. *Coreq:* PKSC 2021.

**PKSC 2021 Packaging Materials and Manufacturing Laboratory (0)** Non-credit laboratory to accompany PKSC 2020. *Coreq*: PKSC 2020

**PKSC 2030 Packaging Research Fundamentals (2)** Principles, methods, and resources for organizing, researching, and reporting technical work in packaging science. Preq: PKSC 1020 and ENGL 1030 and Packaging Science major.

**PKSC 2040 Container Systems (Rigid and Flexible) (3)** Examination of all the packages and containers used to develop systems to distribute products. Compatibility of product and package, structural design, costs, and merchandising considerations are stressed. *Preq:* PKSC 1020 and PKSC 2020 and PKSC major. *Coreq:* 2060.

**PKSC 2060 Container Systems Laboratory (1)** Laboratory practice in sample making, designing, and constructing various containers. *Preq:* PKSC 1020 and PKSC major. *Coreq:* PKSC 2040.

**PKSC 2200 Product/Package Design and Prototyping (4)** Overview of structural and graphic development tools for product and packaging design. Focus on digital creation, photo rendering, wide-format plotting/proofing, rapid prototyping, visualization and real-time 2D/3D design. Course utilizes online lectures and hands-on laboratory experience at The Sonoco Institute. *Preq:* PKSC 1020 and PKSC major. *Coreq:* PKSC 2201.

**PKSC 2201 Product/Package Design and Prototyping Laboratory (0)** Non-credit laboratory to accompany PKSC 2200. *Coreq*: PKSC 2200.

**PKSC 3200 Consumer Packaged Goods Development (3)** Study of human factors

psychology as it relates to product and package development. Lecture topics center on advanced color theory, space, shape, texture, pattern, typography, branding, marketing, consumer studies, ergonomics, sustainability, and applied packaging. Laboratory focuses on developing retail packaging through applying course theory, group development, and peer critique. *Preq:* PKSC 1020 and PKSC 2200 and PKSC major. *Coreq:* 3201.

**PKSC 3201 Consumer Packaged Goods Development Laboratory (0)** Non-credit laboratory to accompany PKSC 3200. *Coreq*: PKSC 3200**.**

**PKSC 4010 Packaging Machinery (3)** Systematic study of types of machinery used to form, fill, seal, and handle various packaging, products, and packaging materials. Emphasizes basic mechanical, electrical, pneumatic, and hydraulic components of packaging machinery along with packaging machinery terminology. Discusses methods for machine line optimization and layout. *Preq:* PKSC major or minor or FDHN major; and either FDSC 4170 or both PKSC 1020 and 2010.

**PKSC 4030 Packaging Career Preparation (1)** Preparation for a successful career in Packaging Science by completing the professional e-portfolio, and finalizing a résumé and career e-portfolio. Refines career skills through role playing. Topics include presentations, interviewing, effective collaboration and communication, business and foreign travel etiquette. *Preq:* PKSC major *Coreq:* PKSC 4200, second semester senior standing.

**PKSC 4040 Mechanical Properties of Packages and Principles of Protective Packaging (3)** Study of the mechanical properties of products and packages and standard methods of determining these properties. Focuses on the functional properties of packages related to shock and vibration isolation and compression. Includes Honors sections. Preq: PKSC major and junior standing; and one of MATH 1060 or MATH 1070; and PKSC 1020 with a grade of C or better and PKSC 2040 with a grade of C or better; and one of PHYS 1220 or PHYS 2070.

**PKSC 4050 - Sustainable Packaging Systems (3)** This course explores the fundamentals behind assessing and measuring the sustainability of different packaging systems used today. Different evaluation paradigms are discussed, covering the environmental, economic, and social dimensions of using various packaging materials. An in-depth analysis of paper, plastic, metal, and glass material is presented to help students understand the energy demand, global warming potential, and other factors associated with the manufacturing and use of common materials. This course also covers end-of-life solutions for various materials, including a cost-benefit analysis for recycling, chemical recycling, and composting. Students complete an analysis of their own using one of the assessment techniques presented in the class to explore the impacts of a particular packaging application. Preq: FNPS 3680.

**PKSC (FDSC) 4090 Total Quality Management for the Food and Packaging Industries (3)** See FDSC 4090.

**PKSC 4160 Application of Polymers in Packaging (4)** Detailed study of polymer science and engineering as applied to packaging science. Includes polymer morphology, rheology, physical properties, processing methods, and polymerization. Emphasizes relationships among processing, structure, and properties. Preq: PKSC major; and one of CH 2010 or CH 2230; and one of PHYS 1220 or PHYS 2070; and PKSC 1020 with a grade of C or better and PKSC 2040 with a grade of C or better and PKSC 2060 with a grade of C or better. Coreq: PKSC 4161.

**PKSC 4161 Application of Polymers in Packaging Laboratory (0)** Non-credit laboratory to accompany PKSC 4160. *Coreq*: PKSC 4160.

**PKSC 4200 Package Design and Development (3)** Study of the principles and methods practiced in designing and developing packages and packaging systems and of methods used

to coordinate and analyze package development activities including interfacing with product development, manufacturing, marketing, purchasing, and accounting. Preq: PKSC major and second semester senior standing; and PKSC 1020 with a grade of C or better and PKSC 3200 and PKSC 3680 and PKSC 4400. Preq or concurrent enrollment: PKSC 4010 and PKSC 4040 and PKSC 4160 and PKSC 4300 and PKSC 4540 and PKSC 4640. Coreq: PKSC 4030 and PKSC 4201.

**PKSC 4201 Package Design and Development Laboratory (0)** Non-credit laboratory to accompany PKSC 4200. *Coreq*: PKSC 4200.

**PKSC 4210 Special Problems in Packaging Science (1-4)** Independent research investigations in packaging science related to packaging materials, machinery, design, and applications. Special emphasis is placed on organizing a research proposal, conducting research, and reporting results. May be repeated for a maximum of 15 credits. *Preq:* Consent of instructor.

**PKSC 4220 Selected Topics in Packaging Science (1-3)** Comprehensive study of selected topics in packaging science not covered in detail or contained in other courses. Contemporary developments in each area are stressed. May be repeated for a maximum of 15 credits, but only if different topics are covered. *Preq:* Consent of instructor.

**PKSC 4230 3D Parametric Design Online (3)** Provides an overview of the techniques used in designing 3D parametrics solid parts for packaging science applications. The course begins with a basic overview of design software and progresses to cover advanced applications, including simulation, surfacing, tooling, photorendering, and sustainability. Additionally, this course prepares students for a professional certification exam. Recommended for students who have experience with design software. Summer only.

**PKSC 4240 Structural Packaging Design Online (3)** Provides a comprehensive overview of how to design structural packaging for paperboard and corrugated mediums. This course begins with a basic overview and transitions into covering advanced applications. Access to design software (vector-based 2D CAD software, such as Illustrator or ArtiosCAD) is required. Recommended for students with design software experience. Summer only.

**PKSC 4300 Converting for Flexible Packaging (4)** Study of materials, methods, processes, and equipment used in converting web materials for flexible packaging. Laboratory provides hands-on experience preparing and operating pilot-scale converting equipment. Preq: PKSC major; and PKSC 1020 with a grade of C or better and PKSC 2040 with a grade of C or better. Coreq: PKSC 4301.

**PKSC 4301 Converting for Flexible Packaging Laboratory (0)** Non-credit laboratory to accompany PKSC 4300. *Coreq*: PKSC 4300.

**PKSC 4400 Packaging for Distribution (3)** Packages are exposed to various shipping methods and numerous hazards during distribution. To ensure adequate product protection, packaging professionals need to understand the fundamental principles of distribution packaging design. Topics include ASTM and ISTA packaging test methods, packaging design guidelines for distribution, terminology, transport modes, distribution hazards, and protective packaging materials. *Preq:* PKSC major or minor and Junior standing; PKSC 1020; one of MATH 1060 or 1070; and one of PHYS 1220 or 2070.

**PKSC 4540 Product and Package Evaluation Laboratory (1)** Laboratory experiments to determine properties of packaging materials and to evaluate the response of packages and products to shock, vibration, and compression. Students operate standard testing equipment and become familiar with industry recognized test methods and standards. *Preq:* PKSC major. *Preq or concurrent enrollment:* PKSC 4040.

**PKSC 4640 Food and Health Care Packaging Systems (4)** Characteristics, engineering

properties, and applications of various materials and systems used in the packaging of foods, pharmaceuticals, and medical devices. Packaging systems for specific food and medical applications are considered. Laboratory and field exercises on food and medical packaging operations and packaging materials are included. Emphasis is on evaluation methods. Includes Honors sections. Preq: PKSC major or FDHN major; and either FDSC 4170 or all three of PKSC 1020 with a grade of C or better and PKSC 2010 with a grade of C or better and PKSC 2040 with a grade of C or better. Coreq: PKSC 4641.

**PKSC 4641 Food and Health Care Packaging Systems Laboratory (0)** Non-credit laboratory to accompany PKSC 4640. *Coreq*: PKSC 4640.

**PKSC 4950 Senior Honors Research in Packaging Science (3)** With professor supervision, students select a well-defined research question, plan the experimental design, perform data collection and results analysis, and prepare a project summary. *Preq*: Membership in Calhoun Honors College. *Coreq*: PKSC 4951.

**PKSC 4951 Senior Honors Research in Packaging Science Laboratory (0)** Non-credit laboratory to accompany PKSC 4950. *Coreq*: PKSC 4950.

**PKSC 4960 Senior Honors Research in Packaging Science (3)** Continuation of PKSC 4950. Students complete an advanced, mentored, two-semester research project under a single research advisor, culminating in an advisor approved honors thesis, in-depth written report or portfolio of work. An oral project summary presentation is required. *Preq*: Membership in the Clemson University Honors College. *Coreq:* PKSC 4961

**PKSC 4961 Senior Honors Research in Packaging Science Laboratory (0)** Non-credit laboratory to accompany PKSC 4960 Professor supervised research experience. *Preq*: Membership in the Clemson University Honors College. *Coreq*: PKSC 4960

**PKSC 4990 Creative Inquiry—Packaging Science (1-3)** Students engage in creative inquiry projects such as surveys or literature research that do not require a laboratory component. Projects may be interdisciplinary in nature. Arrangements with mentors must be established prior to registration. May be repeated for a maximum of 12 credits.

**PKSC 6010 Packaging Machinery (3)** Systematic study of types of machinery used to form, fill, seal, and handle various packaging, products, and packaging materials. Emphasizes basic mechanical, electrical, pneumatic, and hydraulic components of packaging machinery along with packaging machinery terminology. Discusses methods for machine line optimization and layout. *Preq:* PKSC major or minor or FDHN major; and a C or better in: either FDSC 4170 or both PKSC 1020 and 2010.

**PKSC 6040 Mechanical Properties of Packages and Principles of Protective Packaging (3)** Study of the mechanical properties of products and packages and standard methods of determining these properties. Focuses on the functional properties of packages related to shock and vibration isolation and compression. *Preq:* PKSC major and Junior standing; and a C or better in: one of MATH 1060 or MATH 1070, one of PHYS 1220 or PHYS 2070, and PKSC 1020 and PKSC 2040.

**PKSC 6050 Sustainable Packaging Systems (3)** This course explores the fundamentals behind assessing and measuring the sustainability of different packaging systems used today. Different evaluation paradigms are discussed, covering the environmental, economic, and social dimensions of using various packaging materials. An in-depth analysis of paper, plastic, metal, and glass material is presented to help students understand the energy demand, global warming potential, and other factors associated with the manufacturing and use of common materials. This course also covers end-of-life solutions for various materials, including a cost-benefit analysis for recycling, chemical recycling, and composting. Students complete an analysis of their own using one of the assessment techniques presented in the

class to explore the impacts of a particular packaging application.

**PKSC 6160 Application of Polymers in Packaging (4)** Detailed study of polymer science and engineering as applied to packaging science. Includes polymer morphology, rheology, physical properties, processing methods, and polymerization. Emphasizes relationships among processing, structure, and properties. *Preq:* PKSC major; and a C or better in: one of CH 2010 or CH 2230, one of PHYS 1220 or PHYS 2070; and PKSC 1020 and PKSC 2040 and PKSC 2060. *Coreq:* PKSC 6161.

**PKSC 6161 Application of Polymers in Packaging Laboratory (0)** Non-credit laboratory to accompany PKSC 6160. *Coreq*: PKSC 6160.

**PKSC 6230 3D Parametric Design Online (3)** Provides an overview of the techniques used in designing 3D parametrics solid parts for packaging science applications. The course begins with a basic overview of design software and progresses to cover advanced applications, including simulation, surfacing, tooling, photorendering, and sustainability. Additionally, this course prepares students for a professional certification exam. Recommended for students who have experience with design software.

**PKSC 6240 Structural Packaging Design Online (3)** Provides a comprehensive overview of how to design structural packaging for paperboard and corrugated mediums. This course begins with a basic overview and transitions into covering advanced applications. Access to design software (vector-based 2D CAD software, such as Illustrator or ArtiosCAD) is required. Recommended for students with design software experience.

**PKSC 6300 Converting for Flexible Packaging (4)** Study of materials, methods, processes, and equipment used in converting web materials for flexible packaging. Laboratory provides hands on experience preparing and operating pilot-scale converting equipment. *Preq:* A C or better in PKSC 2040; or consent of instructor. *Coreq:* PKSC 6301.

**PKSC 6301 Converting for Flexible Packaging Laboratory (0)** Non-credit laboratory to accompany PKSC 6300. *Coreq*: PKSC 6300.

**PKSC 6400 Packaging for Distribution (3)** Packages are exposed to various shipping methods and numerous hazards during distribution. To ensure adequate product protection, packaging professionals need to understand the fundamental principles of distribution packaging design. Topics include ASTM and ISTA packaging test methods, packaging design guidelines for distribution, terminology, transport modes, distribution hazards, and protective packaging materials. *Preq:* A C or better in PKSC 4040.

**PKSC 6540 Product and Package Evaluation Laboratory (1)** Laboratory experiments to determine properties of packaging materials and to evaluate the response of packages and products to shock, vibration, and compression. Students operate standard testing equipment and become familiar with industry recognized test methods and standards. *Preq or concurrent enrollment:* PKSC 6040.

**PKSC 6640 Food and Health Care Packaging Systems (4)** Characteristics, engineering properties, and applications of various materials and systems used in the packaging of foods, pharmaceuticals, and medical devices. Packaging systems for specific food and medical applications are considered. Laboratory and field exercises on food and medical packaging operations and packaging materials are included. Emphasis is on evaluation methods. *Preq:* PKSC major or FDHN major; and a C or better in: either FDSC 4170 or all three of PKSC 1020 and PKSC 2010 and PKSC 2040. *Coreq:* PKSC 6641.

**PKSC 6641 Food and Health Care Packaging Systems Laboratory (0)** Non-credit laboratory to accompany PKSC 6640. *Coreq*: PKSC 6640.

# GENERAL INFORMATION

# CREATIVE INQUIRY

**What is "Creative Inquiry"?**

Creative Inquiry includes all intensive, discovery-oriented approaches to learning. Emphasis is placed on providing an experience that will be meaningful and will promote reasoning and critical thinking, ethical judgment, and communication skills as well as developing a deep understanding of the methods of scientific and/or humanities research. In our department, we are accomplishing this by involving students in teamwork.

**Opportunities for Creative Inquiry in Food Science, Human Nutrition, Culinary Science, and Packaging Science.**

We currently have Food Science, Human Nutrition, and Culinary Science "Creative Inquiry Teams" and Packaging Science "Creative Inquiry Teams" although the exact number and nature of the teams depends on student interests. Each team is mentored by a faculty member. Team inquiry areas for research and each team's faculty mentor are given below. The faculty encourages each student to participate so if you are not on a team, please consider joining. Just talk to any faculty member about your interests. You will certainly be welcomed and have great experience working with your classmates on a focused project.

## FDSC 4500

***Section #***

*001* *Assessing Impact of miR-33a, ABCA1, and ABCG1 Expression on Cholesterol Efflux in VSMC* ***ALEXIS STAMIKOS, mentor***

*003* *Basic Wet-Lab Etiquette* ***ALEXIS STAMATIKOS, mentor***

*004* *Culinology® Product Development Team* ***MARIE HEGLER, mentor***

*011* *Testing Variables of Foods, Films, Antimicrobials and Surfaces Affecting Transfer and/or Survival of Bacteria* ***PAUL DAWSON, mentor***

*012* *Using Creative Inquiry to Investigate Food Advertising Claims* ***PAUL DAWSON, mentor***

*014* *The Science of Brewing and Fermented Foods* ***PAUL DAWSON, mentor***

*015* *A Nutrition Education and Life-Style Intervention for Type 2 Diabetes* ***VIVIAN HALEY-ZITLIN, mentor***

*016* *Exploration of Weight Gain and Obesity in Adult Populations: A Mechanistic, Clinical and Educational Approach* ***VIVAN HALEY-ZITLIN, mentor***

*018* *Gaining Research Experiences from Participation in Microbiological Projects* ***XIUPING JIANG, mentor***

*026* *Research & Development for the National Dairy Council's Annual New Product Competition* ***SARA COTHRAN, mentor***

**PKSC 4990**

**Section#**

*01* *Chem & Organic Recycling of Plastics* ***JAMES STERNBERG, mentor***

*02* *Brown Box Agency* ***HALEY APPLEBY, mentor***

*03* *Creative Inquiry In Packaging Science* ***ANDREW HURLEY, mentor***

*04* *Assessment of Sterilization Effects on the Mechanical Properties of Biodegradable Polymers for Medical Device Packaging* ***OMAR SADAK, mentor***

# SCHOLARSHIPS

There are several scholarships available for Food Science and Human Nutrition and Packaging Science majors that are administered through the University. If you are enrolled at Clemson University, have a GPA greater than 2.50 and have completed at least 12 hours the previous semester, you are automatically considered for all scholarships that do not have a requirement for financial need.

If you wish to be considered for scholarships which require demonstration of financial need, you must complete a form which is available from the Financial Aid Office, G01 Sikes Hall, www.clemson.edu/finaid.

Scholarships through Clemson University are awarded for fall semester and for spring semester. If you are to receive a scholarship for the coming semester, you will be notified during the last week of the previous semester, i.e., in December for spring semester scholarships and in April for fall semester scholarships.

## FOOD SCIENCE AND HUMAN NUTRITON

Scholarships are available from the Institute of Food Technologists. Forms for these scholarships can be found on the IFT website. Applications become available December/February and are due soon after. More information can be found on the IFT website: Ift.org/community/students/scholarships.

Scholarships are also available for the Research Chefs Association. These scholarship applications become available in early fall semester and are due by November. More information can be found on the Research Chefs website: Culinology.org/page/students.

Scholarships are available from the Academy of Nutrition and Dietetics (ACEND) and the South Carolina Academy of Nutrition and Dietetics (SCAND). Scholarship applications become available late fall and are due early spring. Email notification of scholarship availability is provided to students by the DPD Director. More information may be found on the ACEND website (http://www.eatrightfoundation.org/Foundation/scholarships/) and on the SCAND website (http://www.eatrightsc.org/).

## PACKAGING SCIENCE

Scholarships are available from The Institute of Packaging Professionals. More information can be found on the IoPP website or see Ms. Pat Marcondes (patm@clemson.edu).

Students must be a member of the professional organizations to be eligible to apply. It is best not to procrastinate about completing these forms since they are very time intensive and require transcripts, letters of recommendation, and other documents. We will assist and advise you in your application preparation if you let us know your needs.

Announcements are generally made in class and via email about some of these and other scholarships as information becomes available and as deadlines approach.
Further information about scholarships can be obtained from the Financial Aid Office, www.clemson.edu/finaid ; phone: 864-656-2280; email: finaid@clemson.edu.

# INTERNSHIPS AND CO-OP'S

Numerous opportunities are available for paid internships and co-ops within the food manufacturing and packaging industry. Internships are usually coordinated through Ms. Paula Beecher located in the college's student services office at 153 P&A (lobby of the Poole Ag Center). Co-ops are coordinated through Mr. Jeff Neal (jfneal@clemson.edu) located in the cooperative education office (PKSC) at the Michelin Center, Suite 316 Hendrix Student Center. Corporate representatives regularly visit the campus to make presentations and interview students for these positions. It is very important for all students to participate in these events to develop corporate networks and gain experience in their interviewing skills. Notification will usually come by email, but students should visit the college's student services office to express their interest. Your academic advisor is also available to discuss your interest and help in this process.

# INTERNATIONAL EXPERIENCE

International experiences are coordinated upon request. For more information on international programs and study abroad opportunities, visit https://www.clemson.edu/administration/global-engagement/. Listed below are frequently asked questions:

**Can I take courses in my major abroad?** Yes. Any major can be studied overseas, although not every major is available at every study site. You will need to do some research to see what courses are available in the program you are interested in.

**What are the GPA requirements to study abroad?** A 2.75 GPA is preferred, a 2.5 is the minimum. Some programs may have higher GPA requirements. In some cases, exceptions are possible, if you are in this situation, you should contact the Study Abroad Office to discuss your specific circumstances.

**Will the credit transfer?** Yes. Credit taken overseas is transferable, with approval by your department. During Clemson Faculty-Led summer programs (and *some* semester programs) you will be registered for Clemson courses and these courses will be recorded on your Clemson transcript with both Clemson grades and credit hours. As part of the application for most other semester or year program, you will work with your advisor to complete the Request for Approval of Work to be Taken Abroad form. This form will determine how the courses you plan to take abroad will transfer back to Clemson.

**Can I use my financial aid or scholarships?** In general, financial aid and scholarships can be used for study abroad. You should work with the Clemson University Financial Aid Office as early as possible in the process. Students planning to participate in a summer study abroad program should be aware that financial aid resources for summer school are normally very limited.

**Are there scholarships available?** Yes. However, at this time the Clemson University Study Abroad Office has very limited scholarship money available. You should check on scholarships available outside of Clemson University or within your individual College.

**What's the difference between an exchange program and a non-exchange program?** Exchange programs involve the exchange of students between Clemson and an overseas university; you go to an institution overseas for a semester or year, and a student from abroad comes to study in the U.S. for a semester or a year. Each student pays normal tuition and trades places. Non-exchange programs do not involve international students coming to the U.S. -- you simply go abroad and pay the cost of that program to either the program sponsor or the international university. Non-exchange programs typically (but not always) cost more than exchange programs.

**What is ISEP?** ISEP (International Student Exchange Program) is one type of Clemson exchange program. You pay normal Clemson tuition. ISEP is an organization of over 100 institutions which have agreed to participate in student exchanges. Clemson's participation in ISEP allows you to attend universities in 39 countries worldwide.

**Do I have to be a junior to study abroad?** No. Students may study abroad any time after completing their freshman year, but some programs require junior standing to participate. Transfer students may study abroad at any time after their first semester at Clemson.

**Do I need to be a Clemson student to apply to the program?** No. You do not need to be a student to apply for a Clemson program. You can probably participate in one of our programs as a transient student. Contact our office for details.

**Do I need to speak a foreign language?** No. Although programs are available in many foreign languages for students who have studied those languages, there are English language programs in Western and Eastern Europe, Scandinavia, Africa, Asia, Australia, and the Pacific. If you do wish to spend a semester or year abroad on a non-English program, the requirement is usually that you have taken 2000-level or the equivalent of that language.

**Will I get any help preparing to go?** Yes. In addition to the mandatory orientation program each semester, our office and the Study Abroad office can help you by putting you in contact with former participants or international students from the country in which you will be studying. We will work to make sure YOU feel prepared.

**When I get back how do I talk about my study abroad experience in my resume or in interviews?** Review the brochure "AIFS Student Guide to Study Abroad and Career Development" at https://www.aifsabroad.com/advisors/pdf/Tillman_AIFS_Student_Guide_Career.pdf for some guidelines and ideas.

# COMBINED BACHELOR-TO-GRADUATE PROGRAM

Under this plan, students may reduce the time necessary to earn both degrees by applying graduate credits to both undergraduate and graduate program requirements.

**To be eligible for the Bachelor-to-Graduate plan, students must have completed their bachelor's curriculum through the junior year (minimum 90 credits) and have a minimum overall grade-point ratio of 3.40.** Information and application are available on the Graduate School's website. Endorsements by the program coordinator or department chair of both programs are required. If accepted, students will be given conditional admission to the master's program pending completion of their bachelor's degrees and submission of satisfactory GRE or GMAT scores, if required. Combined Plan students are not eligible for graduate appointments for financial aid until their bachelor's degrees have been awarded.

A maximum of 12 credits of graduate courses in the master's program may be applied to the bachelor's program. As determined by the participating bachelor's program, graduate courses may be applied to the bachelor's degree as free or technical electives, or by substitution of 800-level courses for required undergraduate courses. Under no circumstances can 600-level counterparts of courses required in the bachelor's program be counted toward master's requirements.

**The Department of Food, Nutrition, and Packaging Sciences offers an accelerated combined Bachelor-to-Graduate program that allows students to count up to 12 hours of graduate credit toward both the BS degree in Food Science and Human Nutrition and the MS degree in Food, Nutrition, and Culinary Sciences, or the BS degree in Packaging Science and the MS degree in Packaging Science.** For more information contact Dr. Paul Dawson, Chair of the FNPS Graduate Committee, pdawson@clemson.edu.

# GUIDE TO THE DEPARTMENT

**Employment Opportunities**. Students interested in developing their professional skills through hourly employment are encouraged to pursue opportunities within the department. Opportunities are available in the student operated and managed MicroCreamery/The '55 Exchange Retail Center (Dr. McGregor or Ms. Sara Cothran), various faculty directed research projects and laboratories, the sensory laboratory (Dr. McGregor), DuPont Laboratory (Dr. Darby), the main office (Ms. Kim Collins), and student services office (Ms. Glenda Brown). Students that are approved for work study programs can request that their assignment be started or transferred to within the department. To find out more about these opportunities contact the managing faculty or staff member.

**Professional Organization**. Within the Food, Nutrition, and Packaging Science Department, the Food Science Club, the Human Nutrition Club, and the Packaging Science Club promote teamwork, professional development, and social opportunities for undergraduate and graduate students. The Food Science Club is affiliated with respective regional and national professional societies such as the Institute of Food Technologists (IFT), the South Eastern Section of IFT, and the Research Chefs Association (RCA). The Human Nutrition Club is affiliated with respective regional and national professional nutrition and dietetics organizations such as the Academy of Nutrition and Dietetics (ACEND), the South Carolina Academy of Nutrition and Dietetics (SCAND), and the Piedmont Dietetic Association (PDA). Club members are provided the opportunity to participate in regional, state, and national professional nutrition societies. The Packaging Science Club has many connections with the packaging industry such as The Institute of Packaging Professionals (IoPP). All students are invited to join and actively participate in the department clubs. Dr. George Cavender is the Food Science Club advisor, Dr. Vivian Haley-Zitlin is the Nutrition Club advisor, and Ms. Lisi Campbell is the Packaging Science club advisor.

**Computer Systems**. Various open desktop computer locations for student use exist across the campus. All undergraduates are **required** to own a laptop. **Chromebooks and iPads are not a viable option for your primary laptop.** For various laptop information on purchasing and support, see the following site: http://www.clemson.edu/ccit/help_support/laptops/. As these specific web sites may change over time, use the Clemson homepage to find "Computing" (CCIT) for updated information.

**Facilities**. The Department of Food, Nutrition and Packaging Sciences have eight laboratories in the Poole Agricultural Center, four laboratories in Newman Hall, three laboratories in the Life Sciences Facility and one laboratory in the Harris A. Smith Building to support its research functions. Capabilities exist in the department for many types of chromatographic, spectrophotometric, electrophoretic, viscometric, microbiological, colorimetry, and compositional analysis techniques. Other supporting equipment includes centrifuges, freeze dryers, fermentation and environmental chambers, and texture and color evaluation equipment.

A. Equipment available for teaching

We have a full assortment of equipment available for teaching. Equipment ranges from ambient and refrigerated centrifuges, various HPLC, GC and MS units, colorimeters, viscometers, ovens, spectrophotometers, texture analyzers, freeze driers, microscopes,

stomachers, fermenters, incubators, autoclaves, balances, mixers, blenders, digestion and distillation units, spiral platter, laminar flow hoods, PCR, sensory panel booths, and culinary preparation equipment (ranges, hood, stoves, heat and chill, kettles, etc.). Other assorted product processing and packaging equipment is shared with other departments within the college.

B. Teaching laboratories (food chemistry, food microbiology, food engineering, sensory and culinary lab)

- Food Chemistry/Analysis Laboratory: Most of our general and analytical laboratories make use of the department's 960 $ft^2$ laboratory teaching facility built with bench space to accommodate 20 students. The lab is fully stocked with needed glass ware, balances, stirrers, hot plates, pH meters, water baths, and miscellaneous items.
- Research Kitchen: In 2008, the department renovated 1800 $ft^2$ for a culinary applications lab to support our product development, culinary skills, sensory analysis, food engineering and processing labs. This lab is fully equipped for accommodating 20 students to produce gold-standard to bench-top scale up food products (Mamma Mary's Culinary Pizza Kitchen). The facility is equipped with four culinary workstations. Each culinary station can support five person teams working on special projects or laboratory experiments. The facility has an adjoining focus group room equipped for real time observation during product testing and design.
- Sensory Research Laboratory: this facility (>900 $ft^2$) operates a support kitchen, resource room, and six sensory booths with computerized SIMS 2000 sensory data collection. Sensory evaluation projects typically include design of study, evaluation of protocol, recruiting and training panelists, preparation of products to be evaluated, execution of tests, statistical analysis, and record keeping.
- Sandbox Classroom: In 2009, the department created an interactive, collaborative classroom. The classroom design allows instructors and their students to use technology for teaching and learning. The classroom accommodates 40 students at five tables equipped with 46-inch flat panel LCD displays, internet, and video connections. The instructor is free to walk around the classroom to engage students because of a wireless control system that is used to manage lighting, to select computer screens to be projected and more. The space was specifically designed to create a more interactive setting for the department's Creative Inquiry (FDSC 4500) activities.
- Microbiology Teaching Lab: The food microbiology teaching laboratory has sufficient bench space to accommodate 28 students and is located within the Biological Sciences Department. The facility contains all the needed supplies and equipment for conducting traditional and advanced food microbiology lab experiments and is supported by a lab preparation facility within the university's microbiological laboratory cluster.

C. Retail operations and consumer interaction

The department maintains The '55 Exchange, a student operated and managed retail center in the Hendrix Center showcasing Clemson produced items. Items primarily sold are Clemson ice cream (www.clemson.edu/icecream), blue cheese, and t-shirts. The '55 Exchange features the *Tiger Slab* – which allows customers to customize their ice cream with various mix-ins. Student workers come from various departments of the University. Students learn first-hand how to operate a business – they experience each facet including personnel management, customer service, inventory management, financial management, and marketing. Student managers and staff conduct employment sessions for position openings.

D. Sonoco Institute of Packaging and Design

The Sonoco Institute laboratories located in the Harris A. Smith Building add state-of-the art design and prototyping, innovative printing technologies and consumer experience facilities to the existing Clemson infrastructures. The Institute is focused on bringing interdisciplinary resources to innovation in the fields of Packaging Design Workflow, Designing for Sustainability, Printed Electronics, and Integration of Human Factors into package design.

E. Sonoco Packaging Science Laboratory

This laboratory is located in Newman Hall and provides research and teaching in transportation and distribution packaging, including vibration recording and simulation, cushion material modeling and evaluation, dynamic compression, and clamp truck simulation; industry support through package testing, materials evaluation, and protective packaging design services.

F. DuPont Package Evaluation Laboratory

This laboratory is located in Newman Hall and conducts research in converting technologies, provides converting and analytical services to all tiers of the packaging industry, and develops and evaluates polymers, biopolymers, additives, adhesives, films and laminates for flexible, semi-rigid and rigid packaging.

G. Cryovac Flavourmark® Retort Laboratory

This laboratory is located in Newman Hall and its objectives are to develop new retort pouch materials and packaging systems; conduct research on the creation and characterization of innovative food processing and packaging technologies; and provide food processing and packaging services to the food packaging industry.

H. Food Packaging Laboratory

This laboratory, located in the P&A Building, quantifies and characterizes the quality of packaged food products, develops new packaging technologies to extend the shelf life of food products; and enhances the properties of selected biopolymers.

I. Harris A. Smith Active Food Packaging Laboratory

This laboratory, located in the P&A Building, develops active packaging technologies to improve food quality and safety, focusing on antimicrobial, spoilage indicator, and shelf life extension testing and development. Class II Biohazard approved.

# PROFESSIONAL ORGANIZATIONS

## INSTITUTE OF FOOD TECHNOLOGISTS
## The Society for Food Science and Technology

***About The Institute of Food Technologists***

Founded in 1939, the Institute of Food Technologists is a nonprofit scientific society with 28,000 members working in food science, food technology, and related professions in industry, academia and government.

**Mission**

The mission of IFT is to support improvement of the food supply and its use through science, technology, and education.

***Student Chapters***

Often thought of as "Food Science Clubs" within their universities, IFT Student Chapters hold events on campus such as educational programs, fund-raising events, and social functions. They also compete in a number of IFTSA competitions including the Chapter of The Year Competition, Product Development Competition, and the College Bowl Competition. Student Chapters are divided into Areas and represented on the Student Association Executive Committee by their Area Representative.

**SOUTHEAST -** Alabama A&M University, Auburn University, Clemson University, University of Florida, University of Georgia, University of Kentucky, North Carolina State, University of Tennessee, Virginia Polytechnic Institute and State University, Florida A&M University, North Carolina A&T, Tuskegee Institute

***Mission of the IFTSA***

The mission of the Student Association (SA), Institute of Food Technologists is to foster the professional development of its members.

**Critical Objectives:**

1. To promote student involvement at all levels of IFT.
2. To provide programs, activities, and services to fulfill professional needs of members.
3. To provide the organizational structure and financial capability to accomplish the mission of the Student Association, IFT.
4. To develop, maintain, and strengthen communication, internally and externally.
5. To be recognized as the scientific organization for students interested in food science and technology.

**Website: ift.org**

https://ift.com/

## THE ACADEMY OF NUTRITION AND DIETETICS

### *About the Academy of Nutrition and Dietetics*

Founded in 1917, the Academy of Nutrition and Dietetics (ACEND) is the largest professional organization for food and nutrition professionals. The ACEND has over 70,000 members working in all facets of foods and nutrition areas.

- **Mission**
  Empowering members to be the nation's food and nutrition leaders

- **Vision**
  Optimizing the nation's health through food and nutrition.

**Website**: www.eatright.org

## RESEARCH CHEFS ASSOCIATION

### *About the Research Chefs Association*

Formed in 1996 by a group of food professionals with a common interest in the challenges facing the profession, the Research Chefs Association (RCA) has rapidly grown to over 1,900 members. RCA has become the premier source of culinary and technical information for the food industry.

- **Mission**
  Defining the future of food through Culinology™ and the development of its practitioners.

- **Vision**
  Culinology™ will be a universally recognized discipline and its practitioners will shape the food industry.

**Website**: Culinology.org

Scholarships:
Gum Technology Corporation Hydrocolloids Culinology® Scholarship
Michele Block Memorial Scholarship
Bill "Pops" Hahne Memorial Scholarship
RCF Continuing Education Scholarship Application
RCF Higher Education Scholarship Application

# INSTITUTE OF PACKAGING PROFESSIONALS

***About the Institute of Packaging Professionals***

**Mission Statement**

The Institute of Packaging Professionals is dedicated to creating networking and educational opportunities that help packaging professionals succeed.

**Vision**

IoPP will be the central unifying force in packaging for the benefit of its members, the packaging community and society.

**Core Values**:

IoPP is dedicated to the proposition that packaging is a positive, environmentally responsible and economically efficient force, operating in a modern economic society for the benefit and improved well-being of its people.

IoPP is committed to leadership in packaging through the continuing education and growth of its members and other packaging professionals.

IoPP is operated with rigorous quality standards, reinforced by continuous improvement and growth in the organization, its activities and operations.

IoPP is working with a dedicated team of volunteer leaders and employed staff, which collaborate efficiently and effectively for the betterment of packaging, the packaging community, IoPP and all of us as individuals; IoPP is maintaining timely and efficient communications among themselves and all other interested parties.

IoPP is operated by individuals with a high standard of ethical conduct in all affairs, within budget and with cost controls to effect fiscal responsibility.

**Packaging Students**

IoPP supports students enrolled in packaging programs in college, universities and vocational/technical schools. IoPP offers the following educational programs dedicated to the success of packaging students:

- Certified Professionals in Training (CPIT)
- AmeriStar Student Package Competition
- The Italian Trade Commission IPTA program for packaging students
- Packaging Education Scholarship Fund

**Website**: https://www.iopp.org/

# APPENDIX

# ACADEMIC CALENDAR

## Fall 2025

### August

| | |
|---|---|
| Aug 19, Mon - Aug 20, Tue | Late enrollment |
| Aug 18, Mon | University Convocation |
| Aug 20, Wed | Classes begin |
| Aug 26, Tue | Last day to register or add a class or declare Audit |

### September

| | |
|---|---|
| Sep 1, Mon | Labor Day holiday (University Closed/Classes do not meet) |
| Sep 3, Wed | Last day to drop a class or withdraw from the University without a W grade |
| Sep 9, Tue | Last day to apply for December graduation |

### October

| | |
|---|---|
| Oct 10, Fri | Last day for instructors to issue midterm evaluations |
| Oct 13, Mon - Oct 14, Tue | Fall break (University Open/Classes do not meet) |
| Oct 28, Tue | Last day to drop a class or withdraw from the University without final grades |

### November

| | |
|---|---|
| Nov 5, Wed | Registration for spring term begins |
| Nov 26, Wed - Nov 28, Fri | Thanksgiving holidays (University Closed/Classes do not meet) |

### December

| | |
|---|---|
| Dec 4, Thu - Dec 5, Fri | Classes meet; exams permitted in labs and one-hour courses only |
| Dec 8, Mon - Dec 12, Fri | Examinations |
| Dec 15, Mon | 9:00 A.M.--Deadline to submit candidate grades |
| Dec 17, Wed | 9:00 A.M.--Deadline to submit other grades |
| Dec 17, Wed | Doctoral Commencement |
| Dec 18, Thu | Graduation |

# First Fall 2025

## August

Aug 18, Mon University Convocation

Aug 18, Mon Late enrollment

Aug 18, Mon Classes begin

Aug 25, Mon Last day to register or add a class or declare Audit

Aug 29, Fri Last day to drop a class or withdraw from the University without a W grade

## September

Sep 1, Mon Labor Day holiday (University Closed/Classes do not meet)

Sep 9, Tue Last day to apply for December graduation

Sep 12, Fri Last day for instructors to issue midterm evaluations

Sep 22, Mon Last day to drop a class or withdraw from the University without final grades

## October

Oct 3, Fri Last day of classes

Oct 6, Mon - Oct 10, FriExaminations

Oct 15, Wed 9:00 A.M.--Deadline to submit grades

# Second Fall 2025

## October

Oct 15, Wed Late enrollment

Oct 56, Wed Classes begin

Oct 22, Tue Last day to register or add a class or declare Audit

Oct 27, Mon Last day to drop a class or withdraw from the University without a W grade

## November

Nov 5, Wed Registration for spring term begins

Nov 11, Tue Last day for instructors to issue midterm evaluations

Nov 18, Tue Last day to drop a class or withdraw from the University without final grades

Nov 26, Wed - Nov 28, Fri Thanksgiving holidays (University Closed/Classes do not meet)

### December

Dec 5, Fri Last day of classes

Dec 8, Mon - Dec 12, Fri Examinations

Dec 15, Mon 9:00 A.M.--Deadline to submit candidate grades

Dec 17, Wed 9:00 A.M.--Deadline to submit other grades

Dec 17, Wed Doctoral Commencement

Dec 18, Thu Graduation

## Spring 2026

### January

Jan 5, Mon - Jan 7, Tue Late enrollment

Jan 5, Mon Orientation

Jan 7, Wed Classes begin

Jan 13, Tue Last day to register or add a class or declare Audit

Jan 19, Mon Martin Luther King Jr. holiday

Jan 21, Wed Last day to drop a class or withdraw from the University without a W grade

Jan 28, Wed Last day to apply for May commencement

### February

Feb 27, Fri Last day for instructors to issue midterm evaluations

### March

Mar 13, Fri Last day to drop a class or withdraw from the University without final grades

Mar 16, Mon - Mar 20, Fri Spring break

### April

Apr 4, Sat - Apr 11, Sat Honors and Awards Week

Apr 6, Mon Registration for fall and summer terms begins

Apr 23, Thu - Apr 24, Fri Classes meet; exams permitted in labs and one-hour courses only

Apr 27, Mon - May 1, Fri Examinations

### May

May 4, Mon 9:00 A.M.--Deadline to submit candidate grades

May 6, Tue Doctoral Commencement

May 6, Wed 9:00 A.M.--Deadline to submit other grades

May 7, Wed Candidates for commencement may access grades

May 8, Thu - May 9, Fri Commencement

## First Spring 2026

### January

Jan 5, Mon Late enrollment

Jan 5, Mon Classes begin

Jan 12, Mon Last day to register or add a class or declare Audit

Jan 19, Mon Martin Luther King Jr. holiday

Jan 20, Tue Last day to drop a class or withdraw from the University without a W grade

Jan 28, Wed Last day to apply for May commencement

### February

Feb 2, Mon Last day for instructors to issue midterm evaluations

Feb 9, Mon Last day to drop a class or withdraw from the University without final grades

Feb 23, Mon Last day of classes

Feb 24, Tue - Feb 27, Fri Examinations

### March

Mar 2, Mon 9:00 A.M.--Deadline to submit grades

## Second Spring 2026

### March

Mar 2, Mon Late enrollment

Mar 2, Mon Classes begin

Mar 9, Mon Last day to register or add a class or declare Audit

Mar 13, Fri Last day to drop a class or withdraw from the University without a W grade

Mar 16, Mon - Mar 20, Fri Spring break

### April

Apr 3, Fri – Apr 7, Tue Last day for instructors to issue midterm evaluations

Apr 6, Mon Registration for fall and summer terms begins

Apr 10, Fri Last day to drop a class or withdraw from the University without final grades

Apr 24, Fri Last day of classes

Apr 27, Mon - May 1, Fri Examinations

### May

May 4, Mon 9:00 A.M.--Deadline to submit candidate grades

May 5, Tue – May 8, Fri Doctoral Commencement

May 6, Wed 9:00 A.M.--Deadline to submit other grades

May 7, Thu - May 8, Fri Commencement

## Summer 2026

### May

May 12, Mon Late enrollment

May 12, Tue Classes begin

May 13, Wed Last day to register or add a class or declare Audit

May 19, Tue Last day to drop a class or withdraw from the University without a W grade

May 25, Mon Memorial Day holiday

### June

Jun 2, Tue Last day to apply for August graduation

Jun 15, Mon - Jun 19, Fri Long summer break

Jun 30, Tue Last day for instructors to issue midterm evaluations

### July

Jul 3, Fri July 4th holiday

Jul 7, Tue Last day to drop a class or withdraw from the University without final grades

Jul 29, Wed Last day of classes

### August

Aug 3, Mon - Aug 4, Tue Examinations

Aug 5, Wed 2:00 P.M.--Deadline to submit candidate grades

Aug 6, Thu 9:00 A.M.--Deadline to submit other grades

Aug 6, Thu Doctoral Commencement

Aug 7, Fri Graduation

## First Summer 2026

### May

May 12, Mon Late enrollment

May 12, Tue Classes begin

May 13, Wed Last day to register or add a class or declare Audit

May 18, Mon Last day to drop a class or withdraw from the University without a W grade

May 25, Mon Memorial Day holiday

May 29, Fri Last day for instructors to issue midterm evaluations

### June

Jun 2, Tue Last day to apply for August graduation

Jun 4, Thu Last day to drop a class or withdraw from the University without final grades

Jun 16, Tue Last day of classes

Jun 17, Wed Study day

Jun 18, Thu - Jun 19, Fri Examinations

Jun 23, Tue 9:00 A.M.--Deadline to submit grades

## Second Summer 2026

### June

Jun 27, Fri Late enrollment

Jun 29, Mon Classes begin

### July

Jul 1, Tue Last day to register or add a class or declare Audit

Jul 2, Thu Last day to drop a class or withdraw from the University without a W grade

Jul 3, Fri July 4th holiday

Jul 16, Thu Last day for instructors to issue midterm evaluations

Jul 21, Tue Last day to drop a class or withdraw from the University without final grades

Jul 31, Fri Last day of classes

## August

Aug 3, Mon - Aug 4, Tue Examinations

Aug 5, Wed 2:00 P.M.--Deadline to submit candidate grades

Aug 6, Thu 9:00 A.M.--Deadline to submit other grades

Aug 6, Thu Doctoral Commencement

Aug 7, Fri Graduation

# GENERAL EDUCATION COURSE LIST

- Literature (3 credit hours) -- Any 2000-level ENGL literature course or any of the other courses listed.
- Non-Literature (3 credit hours)
- Social Sciences (minimum of 6 credit hours) **Must** be selected from two different fields.
- Global Challenges (minimum of 6 credit hours) **Must** be selected from two different fields unless identified as interdisciplinary. At least three credit hours must be selected from a course(s) at the 3000-level or higher. A transfer course may not be used to satisfy the General Education Global Challenges Requirement. While a transfer course may fulfill other degree requirements, students must enroll in a Clemson course(s) on the Global Challenges list to fulfill the Global Challenges Requirement.
- Any combination of one-credit courses can be used to meet the three-credit requirement for Arts & Humanities, non-literature.

| Abbr. | Course Title | Literature (3 credits) | Non-Literature (3 credits) | Social Sciences (6 credits) | Global Challenges (6 credits) |
|---|---|---|---|---|---|
| AAH 1010 | Survey of Art & Arch. Hist. I | | • | | |
| AAH 3050 | Contemporary Art History | | | | • |
| AGED 4160 | Ethics and Issues in Agriculture and the Food and Fiber System | | | | • |
| AGED(EDF) 4800 | Found. of Dig. Media & Learning | | | | • |
| AGRB 2020 | Agricultural Economics | | | • | |
| AGRB 2050 | Agriculture and Society | | | | • |
| ANTH 2010 | Introduction to Anthropology | | | • | |
| ANTH 3010 | Cultural Anthropology | | | | • |
| ANTH 3200 | North American Indian Cultures | | | | • |
| ANTH 3250 | The Anthropology of Food | | | | • |
| ANTH 3280 | The Future of Humanity | | | | • |
| ANTH (LANG) 3910 | Medical Anthropology | | | | • |
| ANTH (LANG) 4170 | Japanese Culture and Society | | | | • |
| ANTH (JUST, SOC) 4850 | Atrocity Crimes | | | | • |
| ARCH 3040 | Critical Perspectives on Modern Architecture in a Global Context | | | | • |
| ART 2100 | Art Appreciation | | • | | |
| ASL 2050 | Deaf Studies in the US | | • | | |
| ASL 3500 | The Global Deaf Experience | | | | • |
| AUE 3010 | Energy for Mobility | | | | • |
| AVS 3700 | Principles of Animal Nutrition | | | | • |
| AVS 4150 | Contemporary Issues in Animal Science | | | | • |
| BIOE 4010 | Bioengineering Design Theory | | | | • |
| BIOL 2000 | Biology in the News | | | | • |
| BIOL (WFB) 3130 | Conservation Biology | | | | • |
| BIOL 4930 | Senior Seminar | | | | • |

| Abbr. | Course Title | Literature (3 credits) | Non-Literature (3 credits) | Social Sciences (6 credits) | Global Challenges (6 credits) |
|---|---|---|---|---|---|
| BSHS 3330 | Engaging Global Challenges Through Creative Inquiry | | | | • |
| BUS 3400 | Global Leadership Lessons | | | | • |
| CHIN(PHIL) 3120 | Philosophy in Ancient China | | • | | |
| CHIN(PHIL) 3130 | Philosophy in Modern China | | • | | |
| CHIN 4010 | Pre-Modern Chin. Lit. in Trans. | • | | | |
| CHIN 4020 | Modern Chinese Literature in Translation | • | | | |
| CHIN(PHIL) 4140 | Philosophy in Medieval China | | • | | |
| CHIN 4990 | Selected Topics in Chinese Culture | | • | | |
| COMM 1070 | Media Representations of Science & Tech. | | | • | |
| COMM 1800 | Intro to Cross-Cultural Comm. | | | | • |
| COMM 3080 | Public Comm. & Pop. Culture | | | • | |
| COMM 3800 | Intercultural Communication | | | | • |
| CPSC 2920 | Computing, Ethics and Global Society | | | | • |
| CSM 3070 | Principles and Practices of Sustainable Construction | | | | • |
| ECAS 1900 | Global Challenges: Service Learning I | | | | • |
| ECAS 2900 | Global Challenges: Service Learning II | | | | • |
| ECAS 3210 | Design Elements of Global Challenges | | | | • |
| ECAS 3900 | Global Challenges: Service Learning III | | | | • |
| ECAS 3910 | Global Challenges: Leadership Development III | | | | • |
| ECE 4960 | Integrated System Design II | | | | • |
| ECON 3100 | International Economy | | | | • |
| ECON 3190 | Environmental Economics | | | | • |
| ECON 2000 | Economic Concepts | | | • | |
| ECON 2050 | Why Business? | | | • | |
| ECON 2110 | Principles of Microeconomics | | | • | |
| ECON 2120 | Principles of Macroeconomics | | | • | |
| ECON 4580 | Natural Resource Use in the Global Economy | | | | • |
| ED 3010 | Principals of American Education | | | | • |
| EDF(AGED) 4800 | Foundations of Digital Media and Learning | | | | • |
| EDHC 3300 | Concepts of Human Capital Education and Development | | | | • |
| EDHD 4310 | Selected Topics in Education and Human Development | | | | • |
| EDLT 2000 | Exploring Contemporary Social Issues Through Children's Literature | | | | • |
| EDSC 4260 | Teaching Secondary Mathematics | | | | • |
| EES 4140 | Radioecology | | | | • |
| EES 4860 | Environmental Sustainability | | | | • |
| ENGL 2020 | Literary Forms and Creative Writing | • | | | |
| ENGL 2120 | World Literature | • | | | |
| ENGL 2130 | British Literature | • | | | |

| Abbr. | Course Title | Literature (3 credits) | Non-Literature (3 credits) | Social Sciences (6 credits) | Global Challenges (6 credits) |
|---|---|---|---|---|---|
| ENGL 2140 | American Literature | • | | | |
| ENGL 2150 | Lit. in 20th and 21st Century Contexts | • | | | |
| ENGL 2160 | African American Literature | • | | | |
| ENGL 3490 | Technology & Popular Imagination | | | | • |
| ENGL (GW) 3510 | Great Books of the Western World | | • | | |
| ENGL 3550 | Global Studies in Popular Culture | | • | | |
| ENGL 3560 | Science Fiction | | | | • |
| ENGL(WCIN) 3570 | Film | | • | | |
| ENGL (LANG, WCIN) 4540 | Selected Topics in International Film | | • | | |
| ENGR 1020 | Engineering Disciplines and Skills | | | | • |
| ENGR 1510 | Engineering Skills | | | | • |
| ENSP (GEOL) 1250 | Sustainable Resource Use | | | | • |
| ENSP 2000 | Intro. to Environmental Science | | | | • |
| ENSP 2010 | Exploring Environmental Science | | | | • |
| ENT 2000 | Six-Legged Science | | | | • |
| FDSC 3010 | Food Regulation and Policy | | | | • |
| FNPS 2140 | Food Resources and Society | | | | • |
| FNPS 3680 | Packaging and Society | | | | • |
| FOR 4160 | Forest Policy and Administration | | | | • |
| FR 2600 | Selected Topics in French Literature | • | | | |
| FR 3000 | Survey of French Lit. | • | | | |
| FR 3040 | French Short Story | • | | | |
| FR 3070 | French Civilization | | • | | |
| FR 3170 | Contemporary French Civilization | | • | | |
| GBS 1000 | Introduction to Global Black Studies | | | | • |
| GBS (WS) 3100 | Introduction to Black Feminist Thought | | • | | |
| GC 4440 | Current Developments and Trends in Graphic Communications | | | | • |
| GEOG 1010 | Introduction to Geography | | | • | |
| GEOG 1030 | World Regional Geography | | | | • |
| GEOL 1200 | Natural Hazards | | | | • |
| GEOL (ENSP) 1250 | Sustainable Resource Use | | | | • |
| GEOL 2300 | The Global Ocean: A Survey of Oceanography | | | | • |
| GER 2400 | Selected Topics in German Culture | | • | | |
| GER 2600 | Selected Topics in German Lit. | • | | | |
| GER 3060 | German Short Story | • | | | |
| GER 3600 | German Literature to 1832 | • | | | |
| GER 3610 | German Lit. from 1832 to Modernism | • | | | |
| GER 3690 | Special Topics in German Literature | • | | | |
| GER 4160 | German for International Business II | | | | • |
| GLCH 1510 | Perspectives & Pathways Through a Pandemic | | | | • |

| Abbr. | Course Title | Literature (3 credits) | Non-Literature (3 credits) | Social Sciences (6 credits) | Global Challenges (6 credits) |
|---|---|---|---|---|---|
| GLCH 1550 | Debunking Pseudoscience | | | | • |
| GLCH 1990 | Selected Topics in Global Challenges I | | | | • |
| GLCH 2990 | Selected Topics in Global Challenges II | | | | • |
| GLCH 3510 | Marginality and Health Outcomes | | | | • |
| GLCH 3520 | The Health Impact of Abuse | | | | • |
| GLCH 3990 | Selected Topics in Global Challenges III | | | | • |
| GW (ENGL) 3010 | Great Books of the Western World | | • | | |
| GW 4050 | The Darwinian Revolution | | • | | |
| HIST 1010 | History of the U.S. to 1877 | | | • | |
| HIST 1020 | History of the U.S. Since 1877 | | | • | |
| HIST 1220 | History, Technology, & Society | | | | • |
| HIST 1240 | Environmental History Survey | | | | • |
| HIST 1720 | The West and the World I | | | • | |
| HIST 1730 | The West and the World II | | | • | |
| HIST 1930 | Modern World History | | • | | |
| HIST 2150 | Introduction to Digital History | | | | • |
| HIST 3120 | African American History from 1877 to the Present | | | | • |
| HIST 3210 | History of Science | | | | • |
| HIST 3230 | History of American Technology | | | | • |
| HIST 4370 | Slavery in Africa | | | | • |
| HIST 4900 | Senior Seminar | | | | • |
| HLTH 2980 | Human Health and Disease | | | | • |
| HLTH 3100 | Women's Health Issues | | | | • |
| HLTH 3300 | International Health Perspectives and Comparative Systems | | | | • |
| HON 1900 | First Year Seminar: Arts & Hum (lit) | • | | | |
| HON 1910 | First-Year Seminar: Arts & Hum (Non-Lit) | | • | | |
| HON 1920 | Fr Colloq.: Social Science | | | • | |
| HON 1960 | First-Year Seminar: Global Challenges | | | | • |
| HON 2020 | Science, Culture, & Human Values | | | • | |
| HON 2030 | Society, Art, and Humanities | | • | | |
| HON 2060 | Controversies in Science & Technology | | | | • |
| HON 2100 | Experiencing the Arts | | • | | |
| HON 2200 | Studies in Social Science | | | • | |
| HON 2210 | Studies in Literature | • | | | |
| HON 2220 | Studies in Arts and Humanities | | • | | |
| HON 2820 | Global Policy Process | | | | • |
| HON 3960 | Global Challenges Seminar | | | | • |
| HPA 2010 | Global Experiences in Health Professions | | | | • |
| HUM 3060 | One Big Book | | | | • |
| IE 4880 | Human Factors Engineering | | | | • |
| INNO 3930 | Cross-Disciplinary Creative Inquiry with Global Challenges | | | | • |
| INT 3010 | International Internship | | | | • |

| Abbr. | Course Title | Literature (3 credits) | Non-Literature (3 credits) | Social Sciences (6 credits) | Global Challenges (6 credits) |
|---|---|---|---|---|---|
| INT 3500 | Global Challenges Internship Part Time | | | | • |
| INT 3600 | Global Challenges Internship Full Time | | | | • |
| IS 1020 | Global Challenges: Place, Nations, and Identities | | | | • |
| IS 1030 | Global Challenges: Science and Sustainability | | | | • |
| IS 1040 | Global Challenges on Gender: Health and Human Rights | | | | • |
| ITAL 3020 | Modern Italian Lit. | • | | | |
| JAPN 3070 | Japanese Civilization I | | • | | |
| JAPN 3080 | Japanese Civilization II | | • | | |
| JAPN 4010 | Japanese Lit. in Translation | • | | | |
| JAPN 4060 | Intro. to Japanese Lit. | • | | | |
| JAPN (ANTH) 4170 | Japanese Culture and Society | | | | • |
| JAPN (WCIN) 4560 | Japanese Film | | • | | |
| JUST 4130 | Race and Crime | | | | • |
| JUST 4950 | Critical Issues in Policing | | | | • |
| LANG 2540 | Introduction to World Cinemas | | • | | |
| LANG 3100 | East Asian Pop Culture | | | | • |
| LANG 3400 | Cosmopolis: Myth of the City | | • | | |
| LANG 3420 | Sacred and Profane Bodies | | • | | |
| LANG 3480 | Special Topics in Languages and Global Challenges | | | | • |
| LANG (ANTH) 3910 | Medical Anthropology | | | | • |
| LANG (ENGL, WCIN) 4540 | Selected Topics in International Film | | • | | |
| LANG 4620 | Borders | | | | • |
| LARC 1150 | Introduction to Landscape Architecture | | | | • |
| LARC 1160 | History of Landscape Architecture | | | | • |
| LARC 4230 | Environmental Issues in Landscape Architecture | | | | • |
| MATH 2190 | Introduction to Cryptography | | | | • |
| MATH 2800 | Introduction to Data Science | | | | • |
| ME 3120 | Mfg. Processes and Their Application | | | | • |
| MGT 4150 | Business Strategy | | | | • |
| MICR 4930 | Senior Seminar | | | | • |
| MKT 3030 | Marketing and Society | | | | • |
| MSE 4070 | Senior Capstone Design | | | | • |
| MUSC 1510 | Applied Music | | • | | |
| MUSC 1520 | Applied Music | | • | | |
| MUSC 1530 | Applied Music for Majors | | • | | |
| MUSC 1540 | Applied Music for Majors | | • | | |
| MUSC 2100 | Music Appreciation: Music in the Western World | | • | | |
| MUSC 2510 | Applied Music | | • | | |
| MUSC 2530 | Applied Music for Majors | | • | | |
| MUSC (THEA) 3080 | Survey of Broadway Musicals I | | • | | |
| MUSC (THEA) 3090 | Survey of Broadway Musicals II | | • | | |

| Global Challenges | Global Challenges | Global Challenges | Global Challenges | Global Challenges | Global Challenges |
|---|---|---|---|---|---|
| MUSC 3110 | History of American Music | | • | | |
| MUSC 3120 | History of Jazz | | • | | |
| MUSC 3130 | History of Rock and Roll | | • | | |
| MUSC 3140 | World Music | | • | | |
| MUSC 3150 | The Music of Black Americans | | | | • |
| MUSC 3170 | History of Country Music | | • | | |
| MUSC 3450 | Chamber Choir | | • | | |
| MUSC 3610 | Marching Band** | | • | | |
| MUSC 3620 | Symphonic Band** | | • | | |
| MUSC 3630 | Jazz Ensemble** | | • | | |
| MUSC 3640 | Concert Band** | | • | | |
| MUSC 3680 | String Orchestra** | | • | | |
| MUSC 3690 | Symphony Orchestra** | | • | | |
| MUSC 3700 | Clemson University Singers** | | • | | |
| MUSC 3710 | Women's Chorus** | | • | | |
| MUSC 3720 | Men's Chorus** | | • | | |
| NURS 1400 | Computer Applications in Nursing | | | | • |
| NURS 3300 | Research in Nursing | | | | • |
| PHIL 1010 | Intro. To Philosophic Problems | | • | | |
| PHIL 1020 | Intro. To Logic | | • | | |
| PHIL 1030 | Intro. To Ethics | | • | | |
| PHIL 1040 | Introduction to Law, Liberty, and Justice | | | | • |
| PHIL 1240 | Technology and Its Discontents | | | | • |
| PHIL(CHIN) 3120 | Philosophy in Ancient China | | • | | |
| PHIL(CHIN) 3130 | Philosophy in Modern China | | • | | |
| PHIL 3230 | Theory of Knowledge | | • | | |
| PHIL 3260 | Science and Values | | • | | |
| PHIL 3440 | Business Ethics | | • | | |
| PHIL 3450 | Environmental Ethics | | | | • |
| PHIL 3460 | Biomedical Ethics | | | | • |
| PHIL(WS) 3490 | Theories of Gender and Sexuality | | • | | |
| PHIL(CHIN) 4140 | Philosophy in Medieval China | | • | | |
| PHYS 2450 | Physics of Global Climate Change | | | | • |
| PKSC 3200 | Packaging Design Theory | | | | • |
| POSC 1010 | American National Government | | | • | |
| POSC 1020 | Introduction to International Relations | | | | • |
| POSC 1030 | Introduction to Political Theory | | | • | |
| POSC 1040 | Introduction to Comparative Politics | | | | • |
| POSC 3620 | International Organizations | | | | • |
| POSC 3760 | Democratization | | | | • |
| POSC 3770 | Human Rights | | | | • |
| POSC 4480 | International Political Economy | | | | • |
| POSC 4570 | Terrorism and Violent Extremism | | | | |
| POSC 4590 | Nationalism and Ethnic Conflict | | | | • |
| PRTM 2140 | Wilderness Perspectives | | • | | |
| PRTM 3010 | Recreation and Society | | | • | |
| PRTM 3500 | Global Challenges in Parks, Rec., Tourism, | | | | • |

| | Sport, and Events | | | | |
|---|---|---|---|---|---|
| Global Challenges | Global Challenges | Global Challenges | Global Challenges | Global Challenges | Global Challenges |
| PSYC 2010 | Introduction to Psychology | | | • | |
| PSYC 2500 | Pursuing Happiness | | | | • |
| PYSC 3570 | Psychology and Culture | | | | • |
| REL 1010 | Introduction to Religion | | • | | |
| REL 1020 | World Religions | | • | | |
| REL 2010 | Global Challenges and Religion | | | | • |
| REL 3010 | The Old Testament | | • | | |
| REL 3020 | Survey of New Testament Lit. | | • | | |
| REL 3030 | The Quran | | • | | |
| REL 3060 | Judaism | | • | | |
| REL 3070 | The Christian Tradition | | • | | |
| REL 3090 | Religious History of American South | | • | | |
| REL 3120 | Hinduism | | • | | |
| REL 3130 | Buddhism | | • | | |
| REL 3150 | Islam | | • | | |
| REL 3350 | Islam and the West | | | | • |
| RS (SOC) 3010 | Rural Sociology | | | | • |
| RUSS 3400 | Russian Culture of the 19th Century | | • | | |
| RUSS 3600 | Russian Lit. to 1910 | • | | | |
| RUSS 3610 | Russian Lit. Since 1910 | • | | | |
| SCI 3000 | Sustainable Energy: A Global Cost-Benefit Analysis | | | | • |
| SOC 2010 | Introduction to Sociology | | | • | |
| SOC 2020 | Social Problems | | | • | |
| SOC (RS) 3010 | Rural Sociology | | | | • |
| SOC 4030 | Environmental Sociology | | | | • |
| SOC 4140 | Policy and Social Change | | | | • |
| SOC 4440 | Sociology of Education | | | | • |
| SOC 4600 | Race and Ethnicity | | | | • |
| SOC 4710 | World Population and Society: Ethics of Progress | | | | • |
| SOC 4810 | Aging and Death | | | | • |
| SPAN 3040 | Intro to Hispanic Literary Forms | • | | | |
| SPAN 3070 | The Hispanic World: Spain | | • | | |
| SPAN 3080 | The Hispanic World: Latin America | | • | | |
| SPAN 3110 | Survey of Spanish-American Lit. | • | | | |
| SPAN 3130 | Survey of Spanish Literature I | • | | | |
| STS 1010 | Survey of Sci. and Technology in Society | | • | | |
| STS 1020 | Sci. and Tech in Society: Ethics of Progress | | | | • |
| STS 2150 | A Crit. Approach to Global Challenge of Tech. Revolutions | | • | | |
| STS 3010 | Science in Context | | • | | |
| STS 3030 | Technology, Culture, and Society | | | | • |
| SUST 2040 | Ocean and Climate Sustainability | | | | • |
| THEA 2100 | Theatre Appreciation | | • | | |
| THEA (MUSC) 3080 | Survey of Broadway Musicals I | | • | | |
| THEA (MUSC) 3090 | Survey of Broadway Musicals II | | • | | |

| Global Challenges | Global Challenges | Global Challenges | Global Challenges | Global Challenges | Global Challenges |
|---|---|---|---|---|---|
| THEA 3150 | Theatre History I | | | | • |
| THEA 3160 | Theatre History II | | • | | |
| THEA 3170 | African American Theatre I | | • | | |
| WCIN (ENGL) 3570 | Film | | • | | |
| WCIN (ENGL, LANG) 4540 | Selected Topics in International Film | | • | | |
| WCIN (JAPN) 4560 | Japanese Film | | • | | |
| WFB (BIOL) 3130 | Conservation Biology | | | | • |
| WS 1030 | Women in Global Perspective | | | | • |
| WS 3010 | Intro. to Women's Studies: Women's Lives | | • | | |
| WS (GBS) 3100 | Introduction to Black Feminist Thought | | • | | |
| WS(PHIL) 3490 | Theories of Gender and Sexuality | | • | | |

# FINANCIAL AID

CONTACT: Office of Student Financial Aid, G-01 Sikes Hall, 656-2280; finaid@clemson.edu

## HOPE, LIFE AND PALMETTO FELLOWS AT A GLANCE

| | Stipend Amount per Academic Year | Freshman Eligibility* | Continued Eligibility | AP/IB/Cambridge Credit | Duplicate Hours | Exemption Hours | Maximum Number of Possible Stipends** | Enhancement for Math & Science |
|---|---|---|---|---|---|---|---|---|
| Hope | $2,800 | 3.0 high school GPA | N/A | N/A | N/A | N/A | 2 | N/A |
| LIFE | $5,000 | Two out of the three below:<br>1) 3.0 high school GPA<br>2) 1100 SAT score or 24 ACT<br>3) Rank in the top 30% of graduating class | 1) Average of 30 hours per academic year,<br>2) cumulative 3.0 all-college GPA | Will count toward total needed | Do not count | Will count toward total needed | 8** | Additional $2,500*** |
| Palmetto Fellows | $6,700 - Year one<br>$7,500 Years two-four | Apply with high school guidance counselor; 3.5 high school GPA; 1200 SAT or 27 ACT; rank in top 6% of graduating class; (alternative criteria: 1400 SAT or 32 ACT and 4.0 GPA) | 1) Take and pass 30 hours per academic year,<br>2) cumulative 3.0 Clemson GPA | Do not count | May count if replacing AP credits, first time ONLY | Do not count | 8** | Additional $2,500*** |

| | |
|---|---|
| **Other eligibility requirements: student must be a South Carolina resident at the time of graduation and upon entering their freshman year.* | |
| ***After four years from initial college enrollment, students are ineligible for scholarship renewal (unless student co-ops or participates in an internship during a semester, then their scholarship might be deferred to a later term.* | |
| ****Certain STEM majors are eligible for the STEM Enhancement beginning in the sophomore year if the student completes 14 hours of math and science coursework (includes AP, IB and Dueal Enrollment).* | |
| ***Other Things to Remember:***<br>• Students cannot gain eligibility for the state scholarship mid-year.<br>• The make-up period is the immediate summer of that academic year.<br>• If you are a co-op student, a study abroad student, a student with a registered disability or a transfer student the above may differ for you.<br><br>***Please come to our office if you have any questions.***<br>*G01 – Sikes Hall \|www.clemson.edu/finaid \| scholarships@clemson.edu \| 656-2280* | **Per the Commission on Higher Education**<br>**For the State of South Carolina**<br><br>All appeals must go through CHE.<br>The form can be found on their website: www.che.sc.gov<br>(803) 737-2260 |

# POLICIES AND PROCEDURES

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

Information about Clemson's FERPA policy can be found in the FERPA section of Undergraduate Catalog 2024-2025.

Questions concerning the Family Educational Rights and Privacy Act may be referred to the President's Office.

## GRIEVANCES

Information about Clemson's grievance policy can be found in the Academic Regulations section of Undergraduate Catalog 2024-2025.

## ACADEMIC FORGIVENESS

Information about Clemson's academic forgiveness policy can be found in the Academic Regulations section of Undergraduate Catalog 2024-2025.

## EQUAL OPPORTUNITY IN PROGRAMS AND ACTIVITIES

Information on Clemson's Equal Opportunity/Non-Discrimination Affirmative Action policy can be found in the General Information section of Undergraduate Catalog 2024-2025.