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| For Academic Affairs and Research Use Only | |
| Proposal Number |  |
| CIP Code: |  |
| Degree Code: |  |

**NEW OR MODIFIED COURSE PROPOSAL FORM**

**[ ] Undergraduate Curriculum Council**

**[X] Graduate Council**

|  |
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| **[X]New Course, [ ]Experimental Course (1-time offering), or [ ]Modified Course (Check one box)** |

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

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| JoAnna Cupp 1/8/2021 **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| JoAnna Cupp 1/8/2021 **Department Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (if applicable)** |
| Shanon Brantley 02/02/2021  **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| Mary Elizabeth Spence 1/11/2021 **Office of Assessment (new courses only)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Graduate Curriculum Committee Chair** |
| \_\_Susan Hanrahan 2/1/21\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date… **College Dean** | \_\_\_\_\_\_\_Alan Utter\_\_ 2/26/21  **Vice Chancellor for Academic Affairs** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **General Education Committee Chair (if applicable)** |  |

1. **Contact Person (Name, Email Address, Phone Number)**

JoAnna Cupp, jcupp@astate.edu, 870-680-8295

1. **Proposed starting term and Bulletin year for new course or modification to take effect**

Summer I 2023; bulletin year fall 2022

**Instructions:**

*Please complete all sections unless otherwise noted. For course modifications, sections with a “Modification requested?” prompt need not be completed if the answer is “No.”*

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|  | **Current (Course Modifications Only)** | **Proposed (New or Modified)**  *(Indicate “N/A” if no modification)* |
| **Prefix** |  | **NS** |
| **Number\*** |  | **6253** |
| **Title** |  | **Nutrition in Critical Illness** |
| **Description\*\*** |  | **Focuses on the challenges of managing patients in the critical care setting, from the physiologic changes associated with metabolic stress to special needs met with nutrition support. Appropriate medical nutrition therapy in specific disease states included.** |

***\**** (Confirm with the Registrar’s Office that number chosen has not been used before and is available for use. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

\*\*Forty words or fewer as it should appear in the Bulletin.

1. **Proposed prerequisites and major restrictions** **[Modification requested? Yes/No]**

(Indicate all prerequisites. If this course is restricted to a specific major, which major. If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

1. **Yes** Are there any prerequisites?
   1. If yes, which ones?

Admission to the Master of Science in Nutrition and Dietetics program

* 1. Why or why not?

This is one of the first two courses that students take after they enroll in the program; no course prerequisites.

1. **Yes** Is this course restricted to a specific major?
   1. If yes, which major? Nutrition and Dietetics in the Master of Science in Nutrition and Dietetics program
2. **Proposed course frequency [Modification requested? Yes/No]**

(e.g. Fall, Spring, Summer; if irregularly offered, please indicate, “irregular.”) *Not applicable to Graduate courses.*

N/A

1. **Proposed course type [Modification requested? Yes/No]**

Will this course be lecture only, lab only, lecture and lab, activity (e.g., physical education), dissertation/thesis, capstone, independent study, internship/practicum, seminar, special topics, or studio? Please choose one.

Lecture only

1. **Proposed grade type [Modification requested? Yes/No]**

What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])

Standard letter

1. **No** Is this course dual-listed (undergraduate/graduate)?
2. **No** Is this course cross-listed?

*(If it is, all course entries must be identical including course descriptions. Submit appropriate documentation for requested changes. It is important to check the course description of an existing course when adding a new cross-listed course.)*

**a.** – If yes, please list the prefix and course number of the cross-listed course.

Enter text...

**b.** – **Yes / No** Can the cross-listed course be used to satisfy the prerequisite or degree requirements this course satisfies?

Enter text...

1. **Yes** Is this course in support of a new program?

a. If yes, what program?

Master of Science in Nutrition and Dietetics

1. **No** Will this course be a one-to-one equivalent to a deleted course or previous version of this course (please check with the Registrar if unsure)?

a. If yes, which course?

Enter text...

**Course Details**

1. **Proposed outline** **[Modification requested? Yes/No]**

(The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

I. Critical Care Setting

Week 1 Patient population

Metabolic stress

Diagnoses

Metabolic stress response in critical illness

Physiological changes

Hormone and cell-mediated response

Starvation vs. stress

Sepsis

Systemic Inflammatory Response Syndrome (SIRS)

Week 2 Energy expenditure and body composition in metabolic stress

Estimate of total energy expenditure

Measurement of energy expenditure

Determination of body composition

Scoring systems in critical medicine

Glasgow Coma Scale

APACHE (Acute Physiology and Chronic Health Evaluation) II

SOFA (Sequential Organ Failure Assessment)

Other examples

Week 3 Etiology-based malnutrition

Acute illness/injury

Chronic illness

Social/behavioral/environmental circumstances

Identification of malnutrition in select scenarios

II. Nutrition Support

Week 4 Enteral nutrition (EN)

Routes, tube placements, tubes and devices

Gastric feedings vs. small bowel feedings

Formulas: delivery and composition

Formulas: specialty and indications

Week 5 Complications and management

Early enteral nutrition (EEN)

Week 6 Parenteral nutrition (PN)

Importance in nutrition support

Methods of central and peripheral venous access

Indications and contraindications

Nutrition components and additions in PN

Week 7 Calculation of sample orders

Effective monitoring (anthropometric, biochemical, physical examination)

Potential mechanical and metabolic complications

Prevention and resolution of complications

III. Nutrition Management in the Intensive Care Unit (ICU)

Week 8 Evidence-based guidelines as foundation of care

Academy of Nutrition and Dietetics (AND)

Society of Critical Care Medicine (SCCM)

American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.)

Week 9 Nutrition screening

Purpose of screening

Role of RDN in screening

Nutrition Risk Screening Tool (NRS)

Nutrition Risk in the Critically Ill (NUTRIC) Screening Tool

Other examples in acute care: MUST, SNAQ, MST

Week 10 Nutrition assessment

Anthropometrics

Biochemical assessment

Nutrition-focused physical exam

Dietary assessment

Energy and protein requirements in stress

Vitamins and minerals

IV. Medical Nutrition Therapy in Critical Care

Week 11 Gastrointestinal maldigestion/malabsorption

Gastric surgery

Pancreatitis

Gastroesophageal reflux disease

Week 12 Kidney disease

Acute kidney disease

Chronic kidney disease

End-stage renal disease

Renal replacement therapy

Nephrotic syndrome

Week 13 Cardiovascular disease

Heart failure

Pulmonary disease

Chronic obstructive pulmonary disease (COPD)

Acute respiratory distress syndrome (ARDS

Nutrition support for mechanically ventilated patients

Week 14 Solid organ transplant

Kidney

Liver

Heart

Lung

Week 15 Surgery

Pre-operative

Post-operative

Enhanced Recovery After Surgery (ERAS)

1. **Proposed special features** **[Modification requested? Yes/No]**

(e.g. labs, exhibits, site visitations, etc.)

None

1. **Department staffing and classroom/lab resources**

It is projected that two faculty, one 9-month and one 12-month, will be needed to cover this course and others in the mandatory graduate program. NS 6253 is offered face-to-face class so classroom will be necessary; no lab space is required.

1. Will this require additional faculty, supplies, etc.?

See note on faculty above.

1. **No** Does this course require course fees?

*If yes: please attach the New Program Tuition and Fees form, which is available from the UCC website.*

**Justification**

**Modification Justification (Course Modifications Only)**

1. Justification for Modification(s)

Enter text...

**New Course Justification (New Courses Only)**

1. Justification for course. Must include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

Registered dietitian nutritionists (RDNs) typically work in food service, community or clinical settings. Most dietitians who work in clinical settings deal with patients who are critically ill. The term “critical illness” includes a variety of different states. Although the severity of illness can vary, most critically ill patients present with catabolic stress and are at risk for significant morbidity and mortality. Optimal and appropriate nutrition care is vital to survival and outcome of critically ill patients. The content of such a course provides knowledge and training for students to provide the necessary medical nutrition therapy with appropriate interventions. Such content goes above what is covered in the undergraduate curriculum. Course goals - upon completion of this course, students are able to: recognize signs of metabolic stress and characteristics of patients in the critical care setting; increase knowledge, training and competence in recommending and managing enteral and parenteral nutrition support; develop advanced skills in providing medical nutrition therapy to patients in the intensive care unit.

b. How does the course fit with the mission of the department? If course is mandated by an accrediting or certifying agency, include the directive.

The course fits with the department mission to provide quality education and experiences for students in the field of nutrition and dietetics. Quality training on an advanced topic such as nutrition in critical illness is offered to set the A-State graduate apart in terms of the breadth and depth of knowledge and skills needed for entry-level practice as a registered dietitian nutritionist. In addition, there are two directives from the Accreditation Council for Education in Nutrition and Dietetics (ACEND), the accrediting agency for the Academy of Nutrition and Dietetics, related to the topic of nutrition for the critically ill: **Standard 3.1** The program’s curriculum must be designed to ensure the breadth and depth of requisite knowledge and skills needed for entry-level practice as a registered dietitian nutritionist. **a.** The program’s curriculum must include the following required components, including prerequisites: 4. **Governance of nutrition and dietetics practice, such as the Scope of Nutrition and Dietetics Practice and the Code of Ethics for the Profession of Nutrition and Dietetics; and interprofessional relationships in various practice settings**; 5. **Principles of medical nutrition therapy and the Nutrition Care Process** [1-3, 6 – 15; Other unrelated components] **b.** The program’s curriculum must prepare students with the following core knowledge and competencies: Domain 1. Scientific and Evidence Base of Practice: Integration of scientific information and translation of research into practice; Domain 2. Professional Practice Expectations: Beliefs, values, attitudes and behaviors for the professional dietitian nutritionist level of practice; Domain 3. Clinical and Customer Services: Development and delivery of information, products and services to individuals, groups and populations; Domain 4. Practice Management and Use of Resources: Strategic application of principles of management and systems in the provision of services to individuals and organizations. The NS 6253 Nutrition in Critical Illness supports Domains 1, 2, 3 and 4, as far as competencies which the students meet during the graduate program.

c. Student population served.

NS 6253 serves students who are on track to become registered dietitian nutritionists (RDNs), as required by accreditation.

d. Rationale for the level of the course (lower, upper, or graduate).

The graduate level of the course is appropriate as students must have a baccalaureate degree in order to enroll in the Nutrition and Dietetics program as they seek an advanced educational experience.

**Assessment**

**Assessment Plan Modifications (Course Modifications Only)**

1. Do the proposed modifications result in a change to the assessment plan?

*If yes, please complete the Assessment section of the proposal*

**Relationship with Current Program-Level Assessment Process (Course modifications skip this section unless the answer to #18 is “Yes”)**

1. What is/are the intended program-level learning outcome/s for students enrolled in this course? Where will this course fit into an already existing program assessment process?

Program-Level Learning Outcome

Domain 1 – Scientific and Evidence Base of Practice: Integrate scientific information and translation of research into practice, specifically CRDN\* 1.3

Domain 2 - Professional Practice Expectations: Exhibit beliefs, values, attitudes and behaviors for the professional dietitian nutritionist level of practice, specifically CRDN\* 2.1, 2.4

Domain 3 – Clinical and Customer Services: Develop and deliver information, products and services to individuals, groups and populations, specifically KRDN\* 3.1

Domain 4 – Practice Management and Use of Resources: Strategically apply principles of management and systems in the provision of services to individuals and organizations, specifically CRDN\* 4.10

(\*KRDN Knowledge for the Registered Dietitian Nutritionist; \*CRDN Competency for the Registered Dietitian Nutritionist)

The current curriculum map for the Dietetics Program is revised to add the program-level learning outcomes as noted above and the Core Knowledge & Competencies for the RDN (Registered Dietitian Nutritionist) as applicable to the new graduate degree, Master of Science in Nutrition and Dietetics (MSND).

1. Considering the indicated program-level learning outcome/s (from question #19), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

*For further assistance, please see the ‘Expanded Instructions’ document available on the UCC - Forms website for guidance, or contact the Office of Assessment at 870-972-2989.*

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| **Program-Level Outcome 1 (from question #19)** | Domain 1 – Scientific and Evidence Base of Practice: Integrate scientific information and translation of research into practice |
| Assessment Measure | Outcome CRDN 1.5 Conduct projects using appropriate research methods, ethical procedures and data analysis Direct measure: NS 6303 Research manuscript - 80% of students will receive a grade of B or better, based on the rubric for this course project Indirect measure: NS 6313 Student survey - 100% of students will complete the self-assessment survey pertaining to the research poster and participation in Create@State event |
| Assessment  Timetable | Fall semester, every 3 years, 2023-2024, 2026-2027, 2029-2030 |
| Who is responsible for assessing and reporting on the results? | MSND faculty |

*(Repeat if this new course will support additional program-level outcomes)*

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| **Program-Level Outcome 2 (from question #19)** | Domain 2 - Professional Practice Expectations: Exhibit beliefs, values, attitudes and behaviors for the professional dietitian nutritionist level of practice |
| Assessment Measure | Outcome CRDN 2.2 Demonstrate professional writing skills in preparing professional communications Direct measure: NS 6013 LinkedIn profile – 80% of students will receive a letter grade of B or better, based on the rubric for this assignment Indirect measure: Exit survey – 100% of students will complete and submit exit survey regarding degree experience, including feedback on development of professionalism during program enrollment |
| Assessment  Timetable | Spring, every 3 years, 2023-2024, 2026-2027,2029-2030 |
| Who is responsible for assessing and reporting on the results? | MSND faculty |

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| **Program-Level Outcome 3 (from question #19)** | Domain 3 – Clinical and Customer Services: Develop and deliver information, products and services to individuals, groups and populations |
| Assessment Measure | Outcome KRDN 3.1 Use the Nutrition Care Process to make decisions, identify nutrition-related problems and determine and evaluate nutrition interventions Direct measure: Exit exam – 80% of students will score at least 80% on cumulative exit exam at end of program, indicating among other competencies, an ability to apply knowledge of the Nutrition Care Process Indirect measure: Time to degree/program length – 100% of students will complete degree requirements within 150% of planned program length (1.5 years) as a measure of time to achieve required competencies in the program |
| Assessment  Timetable | Spring, every 3 years 2024-2025, 2027-2028, 2030-2031 |
| Who is responsible for assessing and reporting on the results? | MSND faculty |

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| **Program-Level Outcome 4 (from question #19)** | Domain 4 - Practice Management and Use of Resources: Strategically apply principles of management and systems in the provision of services to individuals and organizations |
| Assessment Measure | Outcome CRDN 4.2 Perform management functions related to safety, security and sanitation that affect employees, customers, patients, facilities and food Direct measure: Program one-year pass rate – 80% of students will pass the national Commission on Dietetic Registration (CDR) credentialing exam within one year of first attempt Indirect measure: Alumni survey – 80% of students will respond to alumni survey one-year post graduation to provide qualitative data on Domain 4 competencies met during program experience |
| Assessment  Timetable | Spring, every 3 years 2024-2025, 2027-2028, 2030-2031 |
| Who is responsible for assessing and reporting on the results? | MSND faculty |

**Course-Level Outcomes**

1. What are the course-level outcomes for students enrolled in this course and the associated assessment measures?

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| **Outcome 1** | CRDN 1.3 Justify programs, products, services and care using appropriate evidence or data  KRDN 3.1 Use the Nutrition Care Process to make decisions, identify nutrition-related problems and determine and evaluate nutrition interventions  CRDN 4.10 Analyze risk in nutrition and dietetics practice |
| Which learning activities are responsible for this outcome? | Complete case study on critically ill patient. Documentation to include: Nutrition Care Process format; citations for evidence-based guidelines noted for each intervention recommended; list of potential risks for case study patient, based on case study information. |
| Assessment Measure | 80% of students will receive a letter grade of B or higher on this case study activity, based on the assignment guidelines and rubric, to meet this outcome. |

*(Repeat if needed for additional outcomes)*

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| **Outcome 2** | CRDN 2.1 Practice in compliance with current federal regulations and state statutes and rules, as applicable, and in accordance with accreditation standards and the Scope of Nutrition and Dietetics Practice and Code of Ethics for the Profession of Nutrition and Dietetics |
| Which learning activities are responsible for this outcome? | Analyze and present in written paper format the various professionals who provide care for critically ill patients in a typical intensive care unit. Discuss roles for each individual (generically) as a member of the interprofessional team, including the registered dietitian nutritionist; ways in which scope of practice for team members is honored; characteristics of successful interprofessional teams and important individual member contributions to the success of the team. |
| Assessment Measure | 80% of students will receive a letter grade of B or higher on the interprofessional relationship paper, based on the assignment guidelines and rubric, to meet this outcome |

**Bulletin Changes**

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| **Instructions** |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Please include a before (with changed areas highlighted) and after of all affected sections.**  **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.** |

Insert after Nursing and before Occupational Therapy on page 382-383

***NS 6253. Nutrition in Critical Illness Focuses on the challenges of managing patients in the critical care setting, from the physiologic changes associated with metabolic stress to special needs met with nutrition support. Appropriate medical nutrition therapy in specific disease states included. Restricted to Nutrition and Dietetics graduate students.***