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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 02/02/2020  **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**

Fall 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\*** |  | **6303** |
| **Title** |  | **Nutrition and Dietetics Research**  **Abbreviated title - Nut and Diet Research** |
| **Description\*\*** |  | **The process of designing, conducting, interpreting and evaluating nutrition research. Emphasis given to ethical issues and application of research to practice.** |

***\**** (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?

This course is shared between two degrees.

Master of Science in Nutrition and Dietetics (MSND) prerequisites:

Admission to the Master of Science in Nutrition and Dietetics program

NS 6003 Topics in Food Service

NS 6123 Health Care Delivery in the U. S.

transitional Master of Science in Nutrition and Dietetics (tMSND) prerequisites:

Admission to the Graduate School

[NS 6003 and NS 6123 will be waived for this group of students.]

* 1. Why or why not?

The curriculum in the MSND program is lock step as part of an accredited program requiring a Master’s degree with sequential and logical progression of courses. Students must complete previous semester of graduate courses before progressing to subsequent semesters.

The tMSND program can be done on a part-time or full-time basis and is a non-accredited degree. It is the expectation that these students will be prepared for the content of the master’s program based on undergraduate courses and work experiences in health-related fields. NS 6003 and NS 6123 will be waived for this group of students.

1. **Yes** Is this course restricted to a specific major?
   1. If yes, which major? Nutrition and Dietetics; this is a shared course for the Master

of Science in Nutrition and Dietetics and the transitional Master of Science in Nutrition

and Dietetics degrees.

1. **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 and the transitional 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. Foundations of research in nutrition and dietetics

Week 1 Influences on nutrition research today

The research question and study design

Designing a research study

Descriptive research designs (qualitative research)

Experimental study designs (randomized trials)

Prospective studies (cohort, follow-up)

Week 2 Appropriate research articles

Scholarly/academic journals

Types of research articles

Science databases for nutrition

Checklist for selecting articles

Principles of scientific writing

II. A research environment

Week 3 Ethics in research

History of research ethics

Responsible conduct of research (RCR)

Ethics and human subject research

Institutional review boards (IRB)

Ethical presentation, interpretation and publication

How to write proposals and obtain funding

Sources of research funding

The proposal review process

Online resources

III. Descriptive research

Week 4 Epidemiologic research

Terminology and disease frequency

Common types of descriptive studies

Qualitative research

Contrast/comparison of qualitative and quantitative research

Research designs and data collection

Qualitative data analysis

Reporting and evaluating qualitative research

IV. Quantitative research (observational and experimental)

Week 5 Analytic nutrition epidemiology

Overview and goals

Concepts in analytic nutrition epidemiologic studies

Study designs and common inconsistencies

Nutrition monitoring in the US

Use and value of nutrition monitoring data

Components of nutrition monitoring

Monitoring resources available to researchers

Week 6 Clinical nutrition study guidelines

Study hypotheses and objectives

Resources and budget

Study participants

Nutrition intervention

Data analysis

V. Integrative and translational research

Week 7 Systematic reviews

Evidence-based practice (EBP)

Conducting systematic reviews

Strengths and limitations of systematics reviews and EBP

Bridging disciplinary boundaries

Benefits and challenges of multidisciplinary/interprofessional research

Strategies for successful teams

Week 8 VI. Evaluation and assessment in research

Survey planning and questionnaire design

Survey research applications

Ecological framework for nutrition research planning

Survey design process and statistical considerations

Estimating power

Data collection methods

Survey protocol and questionnaire design

Data analysis considerations

Week 9 VII. Application of statistical analysis in nutrition and dietetics research

Estimating sample size

The logic of sample size calculations

Sample size calculations

Sample size determination for specific research situations

Software and websites

Clinical and statistical significance

Week 10 Fundamentals of statistical applications

Study design and statistical analysis

General process of conducting statistical analysis

Week 11 VIII. Presentation of research data

Techniques and approaches for presenting research findings

Plan for dissemination

Written and verbal dissemination of research

Illustrating the results of research

Guidelines for preparing useful tables

Use of graphs and other forms of illustrations

Preparing illustrations for publication

Publication perspectives: the writer, the reviewer, the reader

Weeks 12-14 IX. Independent work on research manuscript and presentation; instructor available for

assistance and review as needed

Week 15 X. Research presentations

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 6303 is an online class; no classroom or 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)

A graduate course in research is critical in the field of nutrition and dietetics. Reading, evaluating and applying results of pertinent research provides the foundation for evidence-based practice in food service, community and clinical settings. Students must become knowledgeable consumers of research and be prepared academically to participate in research projects in the workforce, whether large or small, informal or formal. Research in community and health care organizations offers the opportunity to improve patient/client care and health outcomes, grow individual professional knowledge and collaborate with physicians and other colleagues, just to name a few advantages. After all, it is research that led to an understanding of the role of diet in disease prevention and health promotion; diet is key in lowering the risk for chronic diseases as hypertension, diabetes, obesity and heart disease. This is particularly important in the Delta region which includes Arkansas. Registered dietitian nutritionists, along with other professionals, play a key role in education and other interventions to improve health outcomes in the Delta. Course goals – upon completion of this course, students are able to: utilize professional literature to make evidence-based decisions; conduct and document research projects; demonstrate professional ethics and critical thinking skills in the classroom and work setting.

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. A research course as part of a graduate degree is considered best practice for most disciplines in academia. 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 research: **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: 1. **Research methodology, interpretation of research literature and integration of research principles into evidence-based practice**; [2 – 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. The research course supports both Domains 1 and 2 as far as competencies which the students meet during the graduate program.

c. Student population served.

The research course serves both students who are on track to become registered dietitian nutritionists (RDNs), as mandated by accreditation, and students who may already be RDNs or working in health care and are now seeking a graduate degree.

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 Outcomes

Domain 1 - Scientific and Evidence Base of Practice: Integrate scientific information and translation of research into practice, specifically KRDN\* 1.1 and CRDN\* 1.2, 1.4, 1.6

Domain 2 - Professional Practice Expectations: Exhibit beliefs, values, attitudes and behaviors for the professional dietitian nutritionist level of practice, specifically CRDN\* 2.2

(\*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). There is a new curriculum map applicable to the transitional Master of Science in Nutrition and Dietetics degree (tMSND) as it is a non-accredited degree and is not tied to the undergraduate Dietetics Program leading to the 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 and tMSND 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 semester, every 3 years, 2023-2024, 2026-2027, 2029-2030 |
| Who is responsible for assessing and reporting on the results? | MSND and tMSND 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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| **Outcomes 1 and 2** | KRDN 1.1 Demonstrate how to locate, interpret, evaluate and use professional literature to make ethical, evidence-based practice decisions CRDN 1.4 Evaluate emerging research for application in nutrition and dietetics practice |
| Which learning activities are responsible for this outcome? | Locate an original research article, review and critique, following assignment criteria on the rubric, which includes a section on how you can apply the results in professional practice. |
| Assessment Measure | 80% of students will receive a letter grade of B or higher on this activity, based on the assignment guidelines and rubric, to meet this outcome. |

*(Repeat if needed for additional outcomes)*

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| **Outcomes 3, 4 and 5** | CRDN 1.2 Apply evidence-based guidelines, systematic reviews and scientific literature  CRDN 1.6 Incorporate critical-thinking skills in overall practice CRDN 2.2 Demonstrate professional writing skills in preparing professional communications |
| Which learning activities are responsible for this outcome? | Complete a case study, incorporating the nutrition care process, current research and evidence-based guidelines to develop an appropriate nutrition care plan for the client. |
| Assessment Measure | 80% of students will receive a letter grade of B or higher on this activity, 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 6303. Nutrition and Dietetics Research The process of designing, conducting, interpreting and evaluating nutrition research. Emphasis given to ethical issues and application of research to practice. Restricted to Nutrition and Dietetics graduate students. Prerequisites, NS 6003 and NS 6123.***