Code # NHP31

**New Course Proposal Form**

[ ]  **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.

[x]  **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to pheath@astate.edu

|  |
| --- |
| [x] **New Course or** [ ]  **Experimental Course (1-time offering) (Check one box)***Please complete the following and attach a copy of the bulletin page(s) showing what changes are necessary.*  |

|  |  |
| --- | --- |
| Jill S. Detty Oswaks 10/31/2016**Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**COPE Chair (if applicable)** |
| Jill S. Detty Oswaks 10/31/2016**Department Chair:**  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**General Education Committee Chair (If applicable)**   |
| Deanna Barymon 11/2/2016**College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Undergraduate Curriculum Council Chair** |
| Susan Hanrahan, PhD 11/4/2016**College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Graduate Curriculum Committee Chair** |
|  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Vice Chancellor for Academic Affairs** |

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

Jill S. Detty Oswaks, DNSc, CRNA

2. Proposed Starting Term and Bulletin Year

Spring 2018, 2017-2018 bulletin year

3. Proposed Course Prefix and Number (Confirm that number chosen has not been used before. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

NURS 8403

4. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Phys and biophysical Sci in Anes

5. Brief course description (40 words or fewer) as it should appear in the bulletin.

The course focus is physical and biophysical scientific principles applicable to mechanical and human systems in safe anesthesia practice.

6. Prerequisites and major restrictions. (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. Are there any prerequisites? No
	1. If yes, which ones?

Enter text...

* 1. Why or why not?

 First semester course of the curriculum only requires admission into the Nurse Anesthesia Option.

1. Is this course restricted to a specific major? Yes
	1. If yes, which major? DNP: Nurse Anesthesia Option Program

7. Course frequency(e.g. Fall, Spring, Summer). *Not applicable to Graduate courses.*

N/A

8. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Lecture

9. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

Standard Letter

10. Is this course dual listed (undergraduate/graduate)?

No

11. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

No

1. If yes, please list the prefix and course number of cross listed course.

 Enter text...

1. Are these courses offered for equivalent credit? Choose an item.

 Please explain. Enter text...

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

a. If yes, what program?

 DNP: Nurse Anesthesia Option program

13. Does this course replace a course being deleted? No

a. If yes, what course?

N/A

14. Will this course be equivalent to a deleted course? No

a. If yes, which course?

N/A

15. Has it been confirmed that this course number is available for use? Yes

 *If no: Contact Registrar’s Office for assistance.*

16. Does this course affect another program? No

If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.

Enter text...

**Course Details**

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

|  |  |  |
| --- | --- | --- |
| **WEEKS** | **TOPIC** | **REQUIRED READING** |
| 1 | Orientation, Review of Math/Measurements | Shubert & LeylaCh 1 |
| 2-3 | Basic Chemistry Concepts: Atomic structure and dimension/Dalton’s Atomic Theory/Periodic Table/Nomeclature/Stoichiometry/Kinetic Molecular Theory of Matter/Chemical bonding/Intermolecular forces/energy Changes and changes of state | Shubert & LeylaCh 2, 7 |
| 4 | Organic Compounds I: Saturated CHO functional groups, unsaturated hydrocarbons: Alkenes, Alkynes, Aromatics, Alcohols, | Shubert & LeylaCh 11 |
| 5 | Organic Compounds II: Phenols, Ethers, Aldehyde ,Ketones, Carboxylic Acids, Esters, Amines/Amides | Shubert & LeylaCh 11 |
| 6 | Biochemistry: Carbohydrates/Lipids/Proteins/Amino Acids/Fatty Acids/Nucleic Acids  | Shubert & LeylaCh 12 |
| 7 | Acid, Bases, and Buffers: Chemical equilibrium/Acid & Bases/ Acid-Base Reactions/pH Function/Calculation of pH/Buffers | Shubert & LeylaCh 9 |
| 8 | Basics of Physics: Force and Pressure/Newton’s Laws/Mass/Velocity/Acceleration/Force/Atmospheric Pressure/Measuring Pressure | Shubert & LeylaCh 3 |
| 9 | Basics of Physics: Work Energy Power: Work, State functions/Energy/Thermodynamics/Specific Heat/Power/ | Shubert & LeylaCh 4 |
| 10 | Fluid & Flow Movement: Hydrostatics/Hydrodynamics/Viscosity/ | Shubert & Leyla Ch 5 & 8 |
| 11 | Gas Laws: Empirical Gas Laws/Ideal Gas Law/Dalton’s Law of Partial Pressure/Kinetic Molecular Theory of Gases/Graham’s Law of Effusion/Ideal gases and real gas | Subert & LeylaCh. 6, 7 |
| 12 | Electricity and Electrical Safety: Electricity and Electrical Charge/ Ohm’s Law and Electrical Circuits/Semiconductors/Spectroscopy | Shubert & LeylaCh 10 |
| 13 -14 | Radiation and Radioactivity: Radiation/radioactive materials/radioactivity/Radioactive decay/half-life/Ionizing and Nonionizing radiation and effects on human tissue/Sources of Radioactive materials | Shubert & LeylaCh 13 |

18. Special features (e.g. labs, exhibits, site visitations, etc.)

NO

19. Department staffing and classroom/lab resources

See new program proposal

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

 See new program proposal

20. Does this course require course fees? No

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

**Course Justification**

21. Justification for course being included in program. Must include:

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

 This course provides the basis for specialty areas for anesthesia practice, co-existing diseases and anesthesia therapeutic interventions and management. This course will fulfill the requirements of anesthesia curriculum as required by Council on Accreditation of Nurse Anesthesia Educational Programs

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

The course content is mandated by the Council on Accreditation of Nurse Anesthesia Educational Programs Practice Doctorate Standards – Section E. Standard 2 which states, “The curriculum is designed to focus on the full scope of nurse anesthesia practice including:

2. 1. Course(s): Advanced Physiology/Pathophysiology, Advanced Pharmacology, Basic and Advanced Principles in Nurse Anesthesia, and Advanced Health Assessment (see Glossary, “Advanced health assessment”).

2. 2. Content: Advanced Physiology/Pathophysiology (120 contact hours), advanced pharmacology (90 contact hours), basic and advanced principles in nurse anesthesia (120 contact hours), research (75 contact hours), advanced health assessment (45 contact hours), human anatomy, chemistry, biochemistry, physics, genetics, acute and chronic pain management, radiology, ultrasound, anesthesia equipment, professional role development, wellness and substance use disorder, informatics, ethical and multicultural healthcare, leadership and management, business of anesthesia/practice management, health policy, healthcare finance, integration/clinical correlation.

 2.3 Clinical experiences”.

c. Student population served.

Full-time BSN or MSN prepared Professional Registered Nurses with a minimum of 1 year of professional nursing experience in an acute, critical environment admitted to the DNP: Nurse Anesthesia Option program.

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

Graduate – The course is part of the proposed DNP: Nurse Anesthesia Option program

**Assessment**

**University Outcomes**

22. Please indicate the university-level student learning outcomes for which this new course will contribute. Check all that apply.

|  |  |  |
| --- | --- | --- |
| * 1. [ ] Global Awareness
 | * 1. [x] Thinking Critically
 | * 1. [x] Information Literacy
 |

**Relationship with Current Program-Level Assessment Process**

23. 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?

**DNP: Nurse Anesthesia Option program**

The programs’ outcomes emphasize study in the areas of theory, research, role, practice, and health care policy. Upon completion of study for the Doctor of Nursing Practice, the student is expected to be able to:

1. Integrate theories and concepts from nursing and related disciplines in the implementation of the advanced clinician role.
2. Propose solutions for complex health care situations presented by clients/families using deliberative processes and knowledge from nursing and related disciplines.

24. Considering the indicated program-level learning outcome/s (from question #23), 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.*

|  |  |
| --- | --- |
| **Program-Level Outcome 1 (from question #23)** | Integrate theories and concepts from nursing and related disciplines in the implementation of the advanced clinician role.  |
| Assessment Measure |  Eighty-five percent (85%) of the graduates will pass the Council on Certification of Nurse Anesthetists’ National Certification Examination on the first writing as verified by the certification report from the National Board of Certification and Recertification for Nurse Anesthetists. Eighty-five percent (85%) of the graduates will be employed as CRNAs within six months of graduation should they desired to be employed. Eighty-five percent (85%) of the graduates will have participated in some form of continuing education within two (2) years of obtaining certification. Eighty-five percent (85%) of the respondents to the Arkansas State University School of Nursing- Nurse Anesthesia Option’s Graduate Survey one year following graduation will evaluate their ability to perform entry-level tasks as average or above. Eighty-five percent (85%) of the respondents to the Arkansas State University School of Nursing- Nurse Anesthesia Option’s Graduate Employer Survey one year following graduation will evaluate the graduate’s ability to perform entry-level tasks as average or above. |
| Assessment Timetable | To begin fall 2021 this would be performed annually after the first graduating class. |
| Who is responsible for assessing and reporting on the results? | Program Director and School of Nursing Graduate curriculum committee |

|  |  |
| --- | --- |
| **Program-Level Outcome 2 (from question #23)** | Propose solutions for complex health care situations presented by clients/families using deliberative processes and knowledge from nursing and related disciplines.  |
| Assessment Measure |  Eighty-five percent (85%) of the graduates will pass the Council on Certification of Nurse Anesthetists’ National Certification Examination on the first writing as verified by the certification report from the National Board of Certification and Recertification for Nurse Anesthetists. Eighty-five percent (85%) of the graduates will be employed as CRNAs within six months of graduation should they desired to be employed. Eighty-five percent (85%) of the graduates will have participated in some form of continuing education within two (2) years of obtaining certification. Eighty-five percent (85%) of the respondents to the Arkansas State University School of Nursing- Nurse Anesthesia Option’s Graduate Survey one year following graduation will evaluate their ability to perform entry-level tasks as average or above. Eighty-five percent (85%) of the respondents to the Arkansas State University School of Nursing- Nurse Anesthesia Option’s Graduate Employer Survey one year following graduation will evaluate the graduate’s ability to perform entry-level tasks as average or above. |
| Assessment Timetable | To begin fall 2021 this would be performed annually after the first graduating class. |
| Who is responsible for assessing and reporting on the results? | Program Director and School of Nursing Graduate curriculum committee |

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

 **Course-Level Outcomes**

25. What are the course-level outcomes for students enrolled in this course and the assessment measures and benchmarks for student-learning success?

|  |  |
| --- | --- |
| **Outcome 1** | Apply physical and biophysical sciences’ principles to anesthesia delivery and patient care management (EI; O1, O2); |
| Which learning activities are responsible for this outcome? | Class participation, tests |
| Assessment Measure and Benchmark | Tests. Students must achieve an 80% or better.  |
| **Outcome 2** | Critique the movement of fluids, gases and solutes associated with biological membranes, physiological monitoring and anesthesia delivery systems grounded on scientific principles (EI; O1, O2); |
| Which learning activities are responsible for this outcome? | Class participation, tests |
| Assessment Measure and Benchmark | Tests. Students must achieve an 80% or better.  |
| **Outcome 3** | Assess physical and biophysical principles essential for safe delivery of anesthesia care (EI; O1, O2). |
| Which learning activities are responsible for this outcome? | Class participation, tests |
| Assessment Measure and Benchmark | Tests. Students must achieve an 80% or better.  |

*(Repeat if needed for additional outcomes)*

**Bulletin Changes**

|  |
| --- |
| **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. Follow the following guidelines for indicating necessary changes.** **\*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.** - Deleted courses/credit hours should be marked with a red strike-through (~~red strikethrough~~)- New credit hours and text changes should be listed in blue using enlarged font (blue using enlarged font). - Any new courses should be listed in blue bold italics using enlarged font (***blue bold italics using enlarged font***)*You can easily apply any of these changes by selecting the example text in the instructions above, double-clicking the ‘format painter’ icon 🡪 , and selecting the text you would like to apply the change to.* *Please visit* [*https://youtu.be/yjdL2n4lZm4*](https://youtu.be/yjdL2n4lZm4) *for more detailed instructions.* |

~~Nurse Anesthesia~~

~~Master of Science in Nursing~~

|  |  |
| --- | --- |
| **University Requirements:** |  |
| ~~See Graduate School Degree Policies for additional information (p. 35)~~ |  |
| **Program Requirements:** | **Sem. Hrs.** |
| ~~NURS 6023, Advanced Assessment and Diagnostic Evaluation~~ | ~~3~~ |
| ~~NURS 6042, Technology and Equipment for Nurse Anesthesia~~ | ~~2~~ |
| ~~NURS 6043, Regional Anesthesia and Analgesia~~ | ~~3~~ |
| ~~NURS 6103, Research Design and Methodology~~ | ~~3~~ |
| ~~NURS 6113, Anesthesia Pharmacology I~~ | ~~3~~ |
| ~~NURS 6123, Anesthesia Pharmacology II~~ | ~~3~~ |
| ~~NURS 6203, Theory Development in Nursing~~ | ~~3~~ |
| ~~NURS 6223, Anatomy, Physiology and Pathophysiology I~~ | ~~3~~ |
| ~~NURS 6233, Anatomy, Physiology and Pathophysiology II~~ | ~~3~~ |
| ~~NURS 6243, Anesthesia Pharmacology III~~ | ~~3~~ |
| ~~NURS 6253, Anatomy, Physiology and Pathophysiology III~~ | ~~3~~ |
| ~~NURS 6311, Clinical Practicum I~~ | ~~1~~ |
| ~~NURS 6322, Clinical Practicum II~~ | ~~2~~ |
| ~~NURS 6333, Clinical Practicum III~~ | ~~3~~ |
| ~~NURS 6346, Clinical Anesthesia Practicum IV~~ | ~~6~~ |
|  ~~NURS 6413, Advanced Chemistry and Physics Related to Anesthesia~~ | ~~3~~ |
| ~~NURS 6423, Professional Aspects of Nurse Anesthesia~~ | ~~3~~ |
| ~~NURS 6523, Basic Principles of Anesthesia I~~ | ~~3~~ |
| ~~NURS 6533, Advanced Principles of Anesthesia I~~ | ~~3~~ |
| ~~NURS 6543, Advanced Principles of Anesthesia II~~ | ~~3~~ |
| ~~NURS 6553, Advanced Principles of Anesthesia III~~ | ~~3~~ |
| ~~NURS 6723, Synthesis Seminar I~~ | ~~3~~ |
| ~~NURS 6736, Clinical Internship I~~ | ~~6~~ |
| ~~NURS 6773, Synthesis Seminar II~~ | ~~3~~ |
| ~~NURS 6787, Clinical Internship II~~ | ~~7~~ |
| ~~NURS 6797, Clinical Internship III~~ | ~~7~~ |
| ~~Sub-total~~ | ~~88~~ |
| **Total Required Hours:** | **88** |

***Doctor of Nursing Practice (DNP): Nurse Anesthesia Option***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***YEAR 1*** |  |  |  |  |  |
|   | ***SPRING*** |  |   |   |   |   |
|  | ***NURS*** | ***8113*** | ***Theoretical Foundations for DNP*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8403*** | ***Physical and Biophysical Sciences in Anesthesia Practice*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8414*** | ***Advanced Clinical Anatomy for Anesthesia Practice*** | ***4 (3-1)*** |
|  | ***NURS*** | ***8123*** | ***Leadership, Policy and Healthcare System*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8213*** | ***Translational Research for DNP I*** | ***3 (3-0)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***16 (15-1)*** |
|   | ***SUMMER***  |  |  |  |  |  |
|  | ***NURS*** | ***8163*** | ***Principles of Healthcare Ethics and Genetics*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8413*** | ***Advanced Pharmacology I for Anesthesia Practice*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8423*** | ***DNP Advanced Physiology and Pathophysiology I*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8434*** | ***Principles of DNP Anesthesia Practice I*** | ***4 (4-0)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***13 (13-0)*** |
|   | ***FALL*** |  |  |  |  |  |
|  | ***NURS*** | ***8133*** | ***Epidemiology and Population Health*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8153*** | ***Informatics*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8424*** | ***Advanced Pharmacology II for Anesthesia Practice*** | ***4 (4-0)*** |
|  | ***NURS*** | ***8433*** | ***DNP Advanced Physiology and Pathophysiology II*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8444*** | ***Principles of DNP Anesthesia Practice II*** | ***4 (4-0)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***17(17-0)*** |
| ***YEAR 2*** |  |  |  |  |  |
|   | ***SPRING*** |  |  |  |  |  |
|  | ***NURS*** | ***8223*** | ***Translational Research for DNP II*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8143*** | ***Healthcare Finance*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8454*** | ***Principles of DNP Anesthesia Practice III*** | ***4 (4-0)*** |
|  | ***NURS*** | ***8451*** | ***Orientation to DNP Anesthesia Clinical Practice\****  | ***1 (0-1)*** |
|  | ***NURS*** | ***6023*** | ***Advanced Assessment of Diagnosis Evaluation*** | ***3 (3-0)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***14(13-1)*** |
|   | ***SUMMER***  |  |  |  |  |
|  | ***NURS*** | ***8003*** | ***Principles of Curriculum:Design, Instruction & Evaluation*** | ***3 (3-0)*** |
|  | ***NURS*** | ***8508*** | ***DNP Anesthesia Practicum I\**** | ***8 (0-8)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***11(3-8)*** |
|  | ***YEAR 3*** |  |  |  |  |  |
|   | ***FALL***  |  |  |  |  |  |
|  | ***NURS*** | ***861z*** | ***DNP Anesthesia Practicum II\**** |  ***10 (0-10)*** |
|  | ***NURS*** | ***8601*** | ***DNP Project Development*** | ***1 (1-0)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***11(1-10)*** |
|  |  |  |  |  |  |
|  | ***SPRING*** |  |  |  |  |  |
|  | ***NURS*** | ***871z*** | ***DNP Anesthesia Practicum III\**** | ***10 (0-10)*** |
|  | ***NURS*** | ***8702*** | ***DNP Project Implementation*** | ***2 (2-0)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***12 (2-10)*** |
|   | ***SUMMER*** |  |  |  |  |  |
|  | ***NURS*** | ***8808*** | ***DNP Anesthesia Practicum IV\**** | ***8 (0-8)*** |
|  | ***NURS*** | ***8802*** | ***DNP Project Evaluation*** | ***2 (2-0)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***10 (2-8)*** |
|   | ***FALL***  |  |  |  |  |  |
|  | ***NURS*** | ***891z*** | ***DNP Anesthesia Practicum V\**** | ***10 (0-10)*** |
|  |  |  |  |  | ***SUBTOTAL*** | ***10 (0-10*** |
| ***\*Clinical hour ratio = 1 credit:4 contact hours*** |
| ***\*Total clinical contact hours = 2,820 contact hours*** |