

Section Three  
Graduate Nursing Research Procedures

### Research Competency: MSN Level

According to the American Association of Colleges of Nursing's (2006) revision of the Research Position Statement, "Master's programs prepare nurses to evaluate research findings and to develop and implement evidence-based practice guidelines. Their leadership skills enable them to form and lead teams within their agencies and professional groups. They identify practice and systems problems that require study, and they collaborate with scientists to initiate research."

In service settings, master's prepared nurses serve on quality improvement and research utilization committees. To prepare graduates of the Master's in Nursing program at Madonna University, students demonstrate research competency by completing an undergraduate or graduate statistics course, and NUR 5150: Translating and Integrating Scholarship into Advanced Nursing Practice. Further applications of these competencies within the specialty courses (NUR 5670, NUR 6750, and NUR 6751) are also deliberately planned in the curriculum. Please refer to the course syllabi for a full description of the embedded quality project, associated practicum hours, and description of the final poster for disseminating results.

### Research Competency: DNP- Practice Doctorate Level

According to the American Association of Colleges of Nursing's (2004) position statement on the practice doctorate in nursing, "Practice-focused doctoral programs prepare graduates for the highest level of nursing practice beyond the initial preparation in the discipline. Graduates obtain the highest level of practice expertise integrated with the ability to translate scientific knowledge into complex clinical interventions tailored to meet individual, family and community health and illness needs. In addition, these professionals use advanced leadership knowledge and skills to evaluate the translation of research into practice and collaborate with scientists on new health policy research opportunities that evolve from the translation and evaluation processes. They are prepared to focus on the evaluation and use of research rather than the conduct of research"

### **Capstone Experience Project (CEP) Guidelines**

DNP students are expected to develop their research skills throughout the program and will develop a draft prospectus for the DNP project in NUR 8950: Planning and Designing a DNP Capstone Project. Prior to enrolling in NUR 8950 students complete all pre-requisite courses, including NUR 7000, 7110, 7290, 7300, 7430, 7890. In addition, students identify a DNP capstone project chair who will work collaboratively with NUR 8950 faculty and the student as the draft of the DNP project prospectus is developed. Following completion of NUR 8950, the student continues to work with the DNP project chair, and constitutes the remaining members of the capstone committee while enrolled in NUR 8990 credits. Each project plan will be somewhat individualized based on the strengths and abilities the student brings to the DNP Capstone Project (NUR 8990) and the nature of the capstone focus. Students will be accountable to incorporate advanced practice judgment, systems thinking, analytic, and collaborative competencies throughout planning, development, implementation, evaluation, and dissemination of the project.

A number of resources exist that may be helpful to the student including various bibliographic database classes offered by the library and a number of titles available through Pycszak Press such as *Writing Literature Reviews: A Guide for Students of the Social and Behavioral Sciences*, 4<sup>th</sup> ed., by Jose L. Galvan and *Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioral Science*, 5<sup>th</sup> ed., by Fred Pycszak and Randall R. Bruce. The Writing Center has many resources available at <http://www.madonna.edu/resources/writing-programs> to assist with both conceptual elements of writing and APA style.

Invaluable resources to facilitate mastering APA style as reflected in *The Manual of the American Psychological Association*, 6<sup>th</sup> edition, (hereafter referred to as the *APA Manual*) are available through the American Psychological Association website at <http://www.apastyle.org/>

### **DNP Capstone Experience Procedure and Policies:**

#### **Constituting the Capstone Experience Project (CEP) Committee**

The student will work with his/her academic advisor to identify a possible Capstone Experience Project (CEP) Committee that:

shall consist of a minimum of three faculty members, one of whom may be external to the student's home department (MU Graduate Bulletin, 2015-2017, p. 25)

Exceptions to the faculty composition and qualifications may be made at the discretion of the Dean of the Graduate School. All significant decisions regarding the student's CE typically will be approved by a consensus of committee members. This includes the decision whether to approve the CE as having reached the threshold for completion. If consensus cannot be reached, all final decisions rest with the Committee chair (MU, Graduate Bulletin, 2015-2017, pp. 25).

The person identified to be the Capstone Experience Project (CEP) Committee Chair, must meet the following criteria:

- Doctorate or terminal degree in field (if not in student's department).
- 5 years of experience teaching at the graduate level, including 1 year at Madonna University.
- Full-time faculty
- Experience with advising at least 3 students in master's/doctoral research. (MU, Graduate Bulletin, 2015-2017, p. 25)

In collaboration with the selected CEP Committee Chair (hereafter referred to as CEP chair), the student will identify two additional members for the committee.

#### Committee Member Qualifications:

- Doctorate or terminal degree in field (if not in student's department).
- 2 years of experience teaching at the graduate level, including 1 year at Madonna University.
- Full-time faculty. (MU, Graduate Bulletin, 2015-17, p. 25)

### **Composition and Qualifications of Capstone Experience Committee Designation**

The members of the student's committee, and any changes to that roster, must be approved by the committee chair, program director, and the Dean of the Graduate School using the CE Committee Designation form available via the University Portal. Once signed in to the portal, go to student tab; select Find My Form: then search under the letter "G" for Graduate Nursing Forms.

The role of the CE Committee is to facilitate the student's ability to accomplish the project as approved. The student and faculty members of the committee are expected to conduct themselves with integrity and professionalism. If concerns arise, the student should attempt to resolve differences directly with the CEP Committee members. Any unresolved disagreements related to the capstone experience from plan through dissemination should follow the Student Appeal Process/Grievance Procedure, as outlined in the MU Graduate Bulletin, 2015-2017, p. 29.

### **Development of Proposal/Qualifying Examination/Assessment**

With the guidance of the CEP Committee, the student will develop a capstone experience proposal using the recommended outline included here. In addition, students will complete the Human Subjects Review Application/Institutional Review Board Application process as applicable to nursing studies. See the website at <https://www.madonna.edu/resources/center-for-research/institutional-review-board>. Once the proposal is presented to the CEP Committee and approved, the student may choose to submit the proposal to the on-line repository hosted by STTI under the Madonna University program tab. Additionally, the student must have registered for 2 semester hours of the CEP (NUR 8990) prior or concurrent with the semester in which the proposal/qualifying examination/assessment is presented to the committee. For students admitted after May 2012, they must have also completed NUR 8950. In the College of Nursing and Health, the doctoral qualifying examination/assessment consists of two components, the written formal proposal and the oral presentation to the committee.

Once the qualifying examination/assessment is successfully presented to the committee, the CEP Chair completes the DNP Project form, noting title, date, credentials of student and committee members and location of project and submits to the Graduate Data Manager. Additionally, the Chair submits the Recommendation for Candidacy form to the Graduate School. At this time, the student is offered the opportunity to submit the complete proposal to the STTI on-line depository, with the assistance of either of the two faculty members currently designated as administrators for Madonna's site, either Dr. Nancy O'Connor or Dr. Susan Hasenau.

A student who does not successfully complete the Qualifying Examination/Assessment may present a revised proposal a second time (no earlier than 6 weeks and no later than 26 weeks), and if necessary, a third time anytime within an additional 26 weeks. Failure to pass the assessment on the third attempt may result in dismissal from the Graduate School. (MU Graduate Bulletin, 2015-2017, p. 24)

### **Doctoral Candidacy**

A student is considered to be a doctoral candidate when he or she has successfully completed all

pre-candidacy course work (at least 50 graduate credits including NUR 7000, NUR 7290, NUR 7890 and NUR 8950) and passed the program's qualifying assessment. Students must also have completed the equivalent of 500 hours of practicum/field placements (post-BSN and not including DNP field hours) as summarized on the Documentation of Post-BSN Hours form that was initiated upon interview and reviewed at an advising appointment, in order for candidacy status to be achieved. The CEP Chair will initiate the Recommendation for Candidacy Status form and forward to the Program Director for signature before being sent to the Graduate School. The CEP chair should assure that a copy of this form is forwarded to the Nursing Graduate Admissions Officer/Data Manager for retention in the student's DiPonio file.

The student subsequently will receive a letter from the Dean of the Graduate School notifying him or her that this milestone has been reached and an entry will be made in the student's academic record (MU, *Graduate Bulletin*, 2015-2017, p. 24).

Upon notification of reaching candidacy and approval by the Human Subject Review Committee/Institutional Review Board at Madonna University, the student may carry out the capstone experience project in consultation with your CEP Committee Chair. Please note that you may also need to go through the Institutional Review Board (IRB) of the institution where the CEP will be completed.

### Graduation Application

Students must file an Application for Degree or Certificate with the Graduate School according to the dates published by the Office of the Registrar. Applications for graduation may be obtained at the Student Accounts Office or from the Graduate School website. The form must be stamped by the Student Accounts Office upon payment of the graduation fee. The endorsed form is returned to the Graduate School. Students must file an Application for Degree regardless of whether or not they will attend the graduation ceremony. This application expires two semesters after the semester of intended graduation. (MU, *Graduate Bulletin*, 2015-2017, p. 26)

Please note as an alternative to paying the fee in person and having the form stamped prior to signatures of the Chair/Program Director and submission to the Graduate School, the student is welcome to pay on-line and forward a copy of the email receipt along with the completed Application for Graduation as described above.

### Completing the Degree Requirements

In order to register for the 3rd and 4th required hours of the CEP course (or any of the 6 extension credit hours), all other DNP courses must be completed. Elective credits can be taken concurrently with the final CE credits.

### Continuing Enrollment

Doctoral students must maintain continuing enrollment (two out of three semesters per year) until the degree is awarded unless they are granted a leave of absence. Upon

reaching the stage of the capstone experience, a student must register for a minimum of one (1) s.h. each semester enrolled (two out of three semesters per year) to maintain access to University faculty and services (Capstone Experience Credits). A maximum of six (6) Capstone Experience Extension Credits may be taken beyond the number of capstone experience credits required by the program. Failure to maintain continuing enrollment may result in dismissal from the program. (MU, *Graduate Bulletin*, 2015-2017, p. 24).

#### Guidelines for the DNP Capstone Experience Public Presentation

The DNP Capstone Experience includes an oral public presentation of the completed project. The oral presentation should include statement of the problem, review of the literature and significance of the project, methods used including model/theory underpinning the project, results, and implications of the study. An opportunity will be provided for questions from the audience.

The public presentation shall be scheduled prior to the deadline for final filing date of the Doctoral Capstone Experience of the semester the student expects to graduate. Notice of the Capstone Experience Public Presentation, including the student's name and credentials, project title, CEP Committee members and Chair's name and credentials, and time and place of the presentation should be forwarded to the Graduate Admissions Officer to be shared within the University community at least one (1) week prior to the presentation date. Upon completion of the CEP, the manuscript disseminating the findings of the capstone experience project must be submitted to a peer-reviewed journal approved by the CEP Committee and also submitted to the Graduate School for inclusion in the University Library.

Requirements for the format of these documents can be found on the MyPortal "find my forms" area, under Graduate School. In order to meet graduation deadlines, the CEP manuscript must be submitted to the Graduate School in its final format, including Graduate School title/format page not later than 30 calendar days prior to the last day of the semester. (MU, *Graduate Bulletin*, 2015-2017, p. 26). Upon completion of the CEP, the manuscript disseminating the findings of the capstone experience project must be submitted to a peer-reviewed journal approved by the CEP Committee, submitted to the STTI on-line portal under Madonna University's program name by one of the two faculty members currently designated as site administrators, and also submitted to the Graduate School for inclusion in the University Library. Manuscripts submitted to the STTI on-line portal are embargoed on the repository site until released by the student pending acceptance of the manuscript for publication.

## DNP Capstone Experience Process



### **Recommended Outline for a Capstone Experience Project Proposal**

The student is accountable to incorporate advanced clinical judgment, systems thinking, analytic, and collaborative competencies into the CEP proposal. As appropriate for the design of the study, the student should address the following criteria based on basic format referred to as IMRAD (Introduction, Methods, Results and Discussion). The order of sections may vary based on logical development of ideas and the headers may vary based on focus of CEP.

- Introduction
  - Identify the topic
  - Establish the importance of the topic
- Significance of practice initiative in a particular setting, e.g., drivers for change, improvement, innovation
  - Statement of problem/issue to be addressed in project
  - Situate initiative in particulars of organization, e.g., organizational context, likely # of people to be impacted, baseline rates of phenomenon if appropriate
- Literature review - to summarize relevant existing theory, evidence-based practice knowledge, and opportunities for innovation/change
  - Introductory paragraph regarding the organization/presentation of the literature review
  - Review of relevant theory/knowledge related to conceptualization of the topic
  - Review of state of current practices
  - Review of evidence-based/empirical literature to assure desired outcomes of project
- Identification of selected framework facilitating design of capstone project (e.g., from theory relevant to topic/phenomenon or QI model to facilitate project)
  - May include diagram if desired
- Purpose of the study usually an expansion of the significance statement, logically derived from the review of the literature and current evidence-based practice and particularized to your setting answering the “why here in this setting” and “why now in this setting” type of general questions
- Conceptual definitions of concepts/variables
- Operational definitions/empirical indicators specifically linked to how data will be collected and analyzed (include specific measures of the variables)
- Specific questions to be answered by the project
  - Likely to use quality or change language for wording of questions vs. hypothesis as most projects will not have the control implied in experimental studies
- Method
  - Project design



- Setting and sample, inclusion and exclusion criteria
- Human subjects considerations (HSRC/IRB)
- Data collection procedures
- Description of intervention/practice change/innovation
- Measurement – i.e., data sources
  - must discuss relevant specificity or reliability and validity
- Data analysis plan
  - Statistics to describe sampling unit
  - Statistical analyses to be done linked to each specific project question (i.e., t-test, ANOVA, control chart, run chart)
- References
- Appendixes:
  - Letters of Permission
  - Instruments
  - Actual data collection forms

Please note that as the final written proposal is being prepared, it must be submitted via SafeAssign so that the feedback can be used as a learning opportunity. The CEP Chair will instruct you how to submit to Safe Assign via Blackboard™.

Once the written manuscript and oral presentation to the Committee is approved by the committee, students can move forward to prepare the Human Subjects Application, that also requires the signature of the CEP Chair.

**NOTE:**

Before you can begin the project, completed Human Subjects Application must be signed by the CEP Chair and approved the HSR/IRB Committee. See Center of Research webpages for specific forms to be completed and submission procedures at <https://www.madonna.edu/resources/center-for-research/institutional-review->

Students will have completed research integrity training while enrolled in NUR 7890 and should retain copies of these certificates of completion to submit with HSR/IRB Application.

The written proposal serves as the written doctoral qualifying examination/assessment and after successfully presenting it orally to one's committee, candidacy is achieved.

Grade Determination:

Please see the next page for the guidelines regarding grade determination, although the student will receive the grade of Y until the final manuscript is submitted following completion of the project and the public presentation of results is completed.

Criteria for A Grade	Criteria for B grade	Criteria for F grade
<p>Demonstrates exceptional ability to communicate the practice initiative in the stipulated written format.</p> <p>Demonstrates exceptional comprehension of an evidence-based practice change process.</p> <p>Demonstrates exceptional use of appropriate technology and analytical and empirical methods to implement the practice change to assure the desired outcomes.</p> <p>Demonstrates exceptional levels of accountability, clinical judgment, &amp; systems thinking when implementing an evidence-based project.</p> <p>Maintains ethical standards in the conduct of the practice initiative. Approaches research work in a conscientious and professional manner.</p> <p>Progresses from candidacy to project completion within a reasonable time period (i.e. usually within two semesters or as individually negotiated with chair).</p>	<p>Demonstrates adequate ability to communicate the practice initiative in the stipulated written format.</p> <p>Demonstrates adequate comprehension of an evidence-based practice change process.</p> <p>Demonstrates adequate use of appropriate technology and analytical and empirical methods to implement the practice change to assure the desired outcomes.</p> <p>Demonstrates adequate levels of accountability, clinical judgment, &amp; systems thinking when implementing an evidence-based project.</p> <p>Maintains ethical standards in the conduct of the practice initiative. Approaches research work in a conscientious and professional manner.</p> <p>Does not progress to project completion as individually negotiated with chair.</p> <p>Requires extensive direction and assistance to prepare manuscript in stipulated format.</p>	<p>Demonstrates inadequate ability to communicate the practice initiative in the stipulated written format.</p> <p>Demonstrates inadequate comprehension of an evidence-based practice change process.</p> <p>Demonstrates inadequate use of appropriate technology and analytical and empirical methods to implement the practice change to assure the desired outcomes.</p> <p>Demonstrates inadequate levels of accountability, clinical judgment, &amp; systems thinking when implementing an evidence-based project.</p> <p>Breaches ethical standards in the conduct of the practice initiative.</p> <p>Exceeds published time limitations for graduation with DNP degree or continuation credits.</p>

General Pointers Regarding Manuscript PreparationStatement of the Problem (Written in the present tense)

Formulating a problem statement is one of the major steps in the research process. The problem is refined by beginning with a general problem of interest and moving to more specific issues. This section of the research is the development of your argument regarding the need and value of your study. This argument can best be supported by carefully selected references, including statistics, that help the reader (and you) become convinced of the importance of the study; that is, the importance of solving the problem identified via scientific inquiry. It is important to make clear, direct statements.

The statement of the problem section of the manuscript should also include a general statement of the significance of this study to nursing practice. Additionally, the purpose of the study should state what it is that you intend to solve or answer through your research question or study aims.

Literature Review (Written in past tense)

The literature review sets the foundation for the study's research questions/quality improvement aims. A careful review and critique of published (and some unpublished) materials helps you to mentally clarify and delineate your problem. This section should focus on research and other important works that are relevant to your problem. The review effort helps you to become familiar with other works that demonstrate gaps and shortcomings in the area of concern. For instance, what work has been done to date? What more work needs to be done? Would a replication of a specific study with a similar sample of subjects add to the body of knowledge?

An exhaustive review of literature documents the source of your idea and substantiates the rationale behind your questions/project aims. Cite only those references that are relevant to your research questions. Use primary sources. Few, if any, secondary sources are to be cited.

Be certain to include research studies pertinent to your study. As each literature source is reviewed, critically check out the problem, methods and procedures, analysis, findings/ conclusions drawn - its strengths and limitations. Look for gaps and shortcomings in previous work! Presenting work done to date and indicating why more work needs to be done equals justification for your study. Remember that a literature review analyzes previous works and is not merely a summary.

Note that a written review of the literature should flow; that is, pull together several studies (Jones, 2003; Smith, 2001; White & Brown, 2004) to emphasize a point. Detail only those reports that are especially pertinent to your research - sample, instrument, data collection procedures, findings, conclusions. The majority of citations should be recent (less than 10 years).

A review of literature pertaining to conceptual or theoretical framework is a part of the overall literature review, rather than a separate entity (Brink & Wood, 1988). Diagram theoretical/conceptual model, if applicable.

Keep track of all references during the literature review. It is very difficult and time consuming to later "hunt" for specific, but necessary, citations. Use APA style for listing.

A conceptual definition provides a variable or concept with theoretical meaning and is derived from a theorist's definition of the concept or is developed through concept analysis. The conceptual definition provides a basis for formulating an operational definition. These are developed through the synthesis of the conceptual literature review within the framework of the proposed study. A conceptual definition often requires a paragraph or more of text for clarity in the proposal stage. In final manuscript preparation, adhering to guidelines of page length for the targeted journal will require significant editing of this section of the manuscript.

Operational definitions must be consistent with the conceptual definitions. These definitions need to be clear and concise, and specify how each variable of your research questions/ hypotheses/aims will be measured.

One usually states hypotheses/research questions/specific aims at the conclusion of Literature Review section.

### Methods and Procedures (Written in past tense)\*

Identify the type of research design (e.g., descriptive correlational, QI process improvement) to be used to answer research question/specific aims/or test hypotheses and give a brief explanation about the design. Use research texts to put together a clear description of the selected research design. Cite the reference you use to support the chosen design. The description will help you validate that the chosen design is the correct one! Show a diagram of your design if useful for understanding.

Clearly describe setting and sample. Setting means the site(s) where subjects are to be accessed. Indicate sampling methodology, size, and description. State the criteria for

sample selection or omission. If the design is a records review, the sample consists of the records, not the person whose records they are. Diagram of sampling plan may be appropriate (may be used in conjunction with overall research design model).

Identify human subjects considerations and how refusal/attrition of subjects will be documented. Describe specific measures to protect rights of human subjects. A sample of the consent form is to be included in the Appendix, as well as the approval of the Madonna University Human Subjects Review Committee/IRB.

Present the instrumentation or method of measuring variables under study. Clearly describe the instrument including its sources, number of items, scoring, reliability/validity considerations, and pretest information if appropriate. The complete instrument plus letter of permission, if applicable, appear in the Appendix.

If you plan an intervention with subjects, describe in detail. Identify all important aspects of protocols to be followed with both treatment and control groups.

Describe procedures for data collection - how to access subjects; how data will be collected over what time period; by whom it will be collected; i.e., any criteria for selection and training of data collectors.

Identify analyses to be done to examine each hypothesis/research question/specific aim. Use statistical references to refresh your memory on assumptions/requirements for various tests. Identify levels of significance. Consult a statistician as necessary.

\* Please Note: Proposal will be written in future tense. Once study is completed, then change to past tense.

### Findings (Written in past tense)

Present demographic findings - statistical description of subjects. Use Appendix as needed to present data fully but concisely.

Only the results of the analysis are presented in narrative form without interpretation! Restate each hypothesis /research question or specific aim and its results in sequential order, including the actual statistic, degree of freedom, and probability level for each test such as . . . analysis of variance ( $F_{2,38} = 5.4; p=.001$ ) as appropriate.

Refer appropriately to each summary table or figure as you explain the results. You

should generally present findings in both narrative and tabular form for each question or hypothesis. The narrative should summarize the table, not repeat it.

Present any unhypothesized findings that relate to your study. Any qualitative findings may also be addressed (such as unsolicited written responses) from subjects.

#### Conclusion (Written in past to present tense)

To begin, briefly summarize the premise of the study, review of literature, and findings. Continue by interpreting the findings in the order that the research questions/hypotheses/ aims were stated.

Address the overall meaning of the data in response to the research question/aims/problem statement originally presented. Do your data provide a clear answer or solution? If not, do they provide a partial answer or do they lead to further questions? Are there any unexpected conclusions?

Discuss how your findings compare to those conclusions of studies identified in your literature review.

Discuss the major limitations of your study with respect to credibility, generalizability, or usefulness of findings.

Discuss suggestions for further research. Be specific in questions or problems for further study - make clear their importance and feasibility of studying them. Comparison of your findings with those of other investigators can add strength for need for further study or indicate a different direction for study.

Discuss implications of your study for nursing practice in your major area. What changes in practice are suggested by the results? You can propose changes, but be careful not to overstate the data.