Course Syllabus

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Course Code: HON 211G

Course Title: Introduction to Statistics for Midwives

Credits: 3.0

Course Description: This course provides midwifery students with the basic statistical skills needed to interpret scientific studies. Students will learn the fundamentals of the scientific method and implementation of research studies, an overview of commonly applied statistical methods used in health research, practice analyzing actual birth related studies and exposure to basic calculation of descriptive statistics. Students also look at ethical and political issues around how statistics are gathered and calculated, the process involved in the creation of clinical studies and how results from these are applied to maternity care.

Learning Objectives

Learning objectives are identified through the linking of MEAC Essential Competencies and the NCM Degree Qualification Profile.

Learning Activities

1. Student reads appropriate sections from the Learning Materials/Resources.
2. Student answers the questions listed in the didactic assessments by researching the learning materials/resources for the course and correctly citing the sources and page numbers for each of their answers.
3. Student presents the answers to the questions listed in the didactic assessments for review by preceptor.
4. Student participates in preceptor elaboration/discussion of didactic assessments.
5. Student participates in recommended role-playing and/or clinical interactions

Note: The clinical requirement of NARM /Clinical Skills is completed at any time throughout the ASM apprenticeship during actual clinical practice and is NOT a requirement to complete this academic course. Typical clinical manifestations of knowledge learned in this course are identified in the learning objective document above.

Learning Materials / Resources:

Please use textbooks less than 5 years old or most recent edition.

1. **Cluett, Elizabeth R., Bluff, Rosalind. Principles and Practice of Research in Midwifery. 2nd edition. Churchill Livingstone. 2006.** **(http://www.worldcat.org/title/principles-and-practice-of-research-in-midwifery/oclc/64742752/editions?editionsView=true&referer=br)**

Please see attached resources that are specific to course assignments:

Part I: Please use documents entitled:

- [Definitions](#) 📄
- [Introduction to the scientific method](#) 📄
- [L. Cheney Lab 1](#) 📄

Part II: Please use documents entitled:

- [Murphy, Patricia Aikins, and Albers, Sarah L. Evaluation of Research Studies. J. of Nurse Midwifery. Vol 37, No. 4. 1992.](#) 📄
- [Flint, Caroline. The Know Your Midwife Scheme.](#) 📄

Part III: Please use the documents entitled:

- [Mehl-Madrona, Lewis and Morgaine. Physician and Midwife-Attended Home Births. J. of Nurse Midwifery. Vol 42, No. 2. 1997.](#) 📄
- [Cheyney Definitions-Mortality Statistics](#) 📄
- [Induction, Mosoprostol Controversy](#) 📄
- [Planned Home Births in BC, Janssen](#) 📄
- [Washington State Planned (Pang)](#) 📄
- [Care Practices that Promote Normal Birth 2004](#) 📄 (Gaskin Commentary)

Part IV: Please use the documents entitled:

- [Cheyney Spreadsheet](#) 📄
- [CMSC-MANA Stats Form2.](#) 📄

Other recommended reading:

2. [Bland, Martin. An Introduction to Medical Statistics, 4rd edition. Oxford: Oxford University Press. 2015.](http://www.worldcat.org/title/introduction-to-medical-statistics/oclc/961899767?ht=edition&referer=br) (http://www.worldcat.org/title/introduction-to-medical-statistics/oclc/961899767?ht=edition&referer=br)

5. [Fowler, J., P. Jarvis and M. Chevannes. Practical Statistics for Nursing and Health Care. NY: John Wiley and Sons, Ltd. 2013.](http://www.worldcat.org/title/practical-statistics-for-nursing-and-health-care/oclc/966299748/editions?editionsView=true&referer=br) (http://www.worldcat.org/title/practical-statistics-for-nursing-and-health-care/oclc/966299748/editions?editionsView=true&referer=br)

6. [Gaskin, Ina May. Ina May's Guide to Childbirth. NY: Bantam Books. 2012.](http://www.worldcat.org/title/ina-mays-guide-to-childbirth/oclc/826306709?referer=br&ht=edition) (http://www.worldcat.org/title/ina-mays-guide-to-childbirth/oclc/826306709?referer=br&ht=edition) Pp. 211-214. "The Prostaglandins."

7. [Zeiger, Mimi. Essentials of Writing Biomedical Research Papers. NY: McGrawHill. 2000.](http://www.worldcat.org/title/essentials-of-writing-biomedical-research-papers/oclc/699159115/editions?editionsView=true&referer=br) (http://www.worldcat.org/title/essentials-of-writing-biomedical-research-papers/oclc/699159115/editions?editionsView=true&referer=br)

Web resources

8. Midwives Alliance of North America Division of Research

http://www.mana.org/statform.html

9. MANA statistics Project Homepage: https://www.manastats.org

10. National Centers for Health Statistics 2002 report:
http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_05.pdf

11. MEAC Abbreviated NARM Skills Form (Links to an external site.) (http://www.midwiferycollege.org/AcademicProgram/Downloads/ASM/Clinical/Form-NARMSkills.pdf)

12. **MEAC Core Competencies for Midwives (Links to an external site.)** (http://meacschools.org/wp-content/uploads/2014/12/Curriculum-Checklist-of-Essential-Competencies-rev-2014.pdf)

13. **Midwives Model of Care® (Links to an external site.)** (http://cfmidwifery.org/mmoc/define.aspx) .

14. Students must find 1 article/study less than 5 years old. Recommended internet links as needed for latest developments in midwifery care:

- The Cochrane Collaboration (Links to an external site.) **(http://www.cochrane.org/)**
- EBSCO (Links to an external site.) **(http://ejournals.ebsco.com/login.asp?bCookiesEnabled=TRUE)**
- National Library of Medicine (Links to an external site.) **(https://www.nlm.nih.gov/)**
- PubMed (Links to an external site.) **(https://www.ncbi.nlm.nih.gov/pubmed/)**
- ScienceDirect (Links to an external site.) **(http://www.sciencedirect.com/)**
- Medscape (Links to an external site.) **(http://www.medscape.com/womenshealth)**
- World Health Organization (Links to an external site.) **(http://www.who.int/en/)**

Course Bibliography of Recommended Readings:

1. Albers, L., and P. A. Murphy. Evaluation of Research Studies. Part III: Statistical Significance Testing. Journal of Nurse-Midwifery 38: 51-53. (course packet)

2. Bland, Martin. An Introduction to Medical Statistics, 3rd edition. Oxford: Oxford University Press.

3. Cheyney, Melissa. Practice Laboratory. Part I: Fundamentals of the Scientific Method and the Implementation of Research Agendas. Course Packet for Introduction to Statistics for Midwives. National College of Midwifery. Taos, New Mexico.

4. Part IV: Some Notes on Spreadsheet Use, Commonly Cited Maternal and Infant Health Variables, and the Calculation of Descriptive Statistics. Course Packet for Introduction to Statistics for Midwives. National College of Midwifery. Taos, New Mexico.

5. Fowler, J., P. Jarvis and M. Chevannes. Practical Statistics for Nursing and Health Care. NY: John Wiley and Sons, Ltd.

6. Gaskin, Ina May. Ina May's Guide to Childbirth. NY: Bantam Books. Pp. 211-214. "The Prostaglandins."

7. Goldberg, A. and D. Wing. Induction of Labor: The Misoprostal Controversy. Journal of Midwifery and Women's Health 48(4):244-248. (course packet)

8. Janssen, P. et al. Outcomes of planned home births versus planned hospital births after regulation of midwifery in British Columbia. Canadian Journal of Midwifery 166(3):315-323. (course packet)

9. Mehl-Madrona, L. and M. Madrona. Physician and midwife-attended home births: Effects of breech, twin and post-dates outcome data on mortality rates. Journal of Nurse-Midwifery 42(2):91-98. (course packet)

10. Murphy, P. A. and L. Albers. Evaluation of Research Studies. Part I: Randomized Trials. Journal of Nurse-Midwifery 37:287-290. (course packet)

11. Murphy, P. A. and L. Albers. Evaluation of Research Studies. Part II: Observational Studies. Journal of Nurse-Midwifery 37:411-413. (course packet)

12. Pang, J. et al. Outcomes of Planned Home Births in Washington State: 1989-1996. Obstetrics and Gynecology 100(2):253-259. (course packet)

13. Zeiger, Mimi. Essentials of Writing Biomedical Research Papers. NY: McGraw-Hill. Web Resources:

14. Flint, C. and P. Poulengeris. The 'Know Your Midwife' Report. London: Caroline Flint. Available at: http://www.birthcentre.com/essays/the_know_your_midwife_scheme_2.htm (course packet)

15. Midwives Alliance of North America Statistics Form: http://www.mana.org/statform.html (course packet)

16. National Centers for Health Statistics 2002 report: http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_05.pdf

17. Oregon Vital Statistics Website Definitions Page: http://www.oregonlaws.org/ors/2007/432.005

18. Prenatal Testing Guide: http://www.babycenter.com/prenatal-tests

19. Scientific Method: http://teacher.nsrl.rochester.edu/phy_labs/AppendixE/AppendixE.html (course packet)

20. http://physics.ucr.edu/~wudka/Physics7/Notes_www/node5.html

21. http://home.xnet.com/~blatura/skep_1.html (This link no longer exists, but students may look up resources for skeptics of scientific method)

Evaluation Tools / Methods:

Minimum passing grade for all courses is a cumulative 80% / B-. Students and preceptors are encouraged to work together until the student masters the information.

Grades are not recorded until both the student and preceptor submit end of trimester evaluations.

The student's final grade for the course is based on preceptor evaluation of the following:

1. The preceptor evaluates each answer based on NCM rubrics.
2. Student's answers should reflect a thorough review of current literature regarding best current practices in midwifery care.

3. Each answer should be formed in the student's own words or paraphrased from the text. The answer should be minimal, not a rewrite of the entire text, but enough to show appropriate comprehension of the learning objective.
4. Student identification of sources and page numbers for each of the didactic assessments. (Preceptor should do a random check to determine that sources cited are correctly identified.)

Course credit: One Academic credit equals approximately 15 hours of formal time plus 30 hours of additional study or homework. Formal time is defined as the amount of time taken to answer the assignments to the level of 80% and to complete any learning activities to the preceptor's satisfaction, including any time spent face to face with the preceptor. Informal time includes any time spent actively reading relevant sources and textbook/s, researching Learning Objectives, and studying for examinations.

Course Summary:

Date	Details	
Tue Jul 25, 2017	📅 Office Hours (https://ncm.instructure.com/calendar?event_id=112&include_contexts=course_131)	8am to 9am
	📝 A Note on Community Building Activities (https://ncm.instructure.com/courses/131/assignments/5503)	
	📝 Community Diagnosis (https://ncm.instructure.com/courses/131/assignments/5870)	
	📝 Epidemiology (https://ncm.instructure.com/courses/131/assignments/5868)	
	📝 Exams and Quizzes (https://ncm.instructure.com/courses/131/assignments/5504)	
	📝 For Fun: Critical Look at Statistics (https://ncm.instructure.com/courses/131/assignments/5843)	
	📝 HON211G-001 - Define the Scientific Method. (https://ncm.instructure.com/courses/131/assignments/5395)	
	📝 HON211G-002 - List and describe the four main steps of the scientific method. (https://ncm.instructure.com/courses/131/assignments/5396)	
	📝 HON211G-003 - Explain the importance of the predictive powers of hypotheses or theories in the scientific method. (https://ncm.instructure.com/courses/131/assignments/5397)	
	📝 HON211G-004 - Explain the difference between hypotheses, theories, models, laws, faith, and facts. Explain how some of these terms have been misapplied in popular usage. (https://ncm.instructure.com/courses/131/assignments/5398)	
	📝 HON211G-005 - Explain the importance of repeatability in the scientific method. (https://ncm.instructure.com/courses/131/assignments/5400)	