Course Title: Antepartum Nutrition  
Credits: 0.5

Course Description: The Nutrition course provides student midwives with information regarding nutrition during the antepartum period. The course covers education of clients regarding nutritional and non-allopathic dietary supplements, and teaches midwives to individualize each recommendation. This course also includes identifying individual nutritional patterns, RDA recommendations, effects of malnutrition (both maternal and fetal), and facilitating access to better nutrition during pregnancy. This course uses current research in midwifery and obstetrics to broaden the student’s understanding of the following NARM skills and MANA core competencies learned under clinical supervision:

NARM Skills

I. Midwifery Counseling, Education and Communication  
(13)-I J 4. Diet, nutrition and supplements

II. General Healthcare Skills  
(55)-II J. Recommends the use of vitamin and mineral supplements

III. Maternal Health Assessment  
(78)-III K 1. Nutritional, and non-allopathic dietary supplement support

Learning Activities:

A. Student reads appropriate sections from the Learning Materials/Resources.

B. Student answers the questions listed in the Learning Objectives by researching the Learning Materials/Resources for the course and correctly cites the sources and page numbers for each of their answers.

C. Student presents answers the questions listed in the Learning Objectives for review by preceptor.

D. Student participates in preceptor elaboration/discussion of Learning Objectives.

E. In the case that the required texts are more than 5 years old, the student must research, prepare & present a summary of current best midwifery care/practices appropriate to the topic of the course from a current journal article/study, less than 5 years old.

F. 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.
Activities specific to NARM skills learned in this section:

1. Keep a food diary for 3 days and compare your food intake to pregnancy nutritional requirements (as if you were 20 weeks pregnancy.) Make a list of recommendations to improve your nutritional intake.
2. Review several clients’ food intakes and practice making assessments and recommendations with your preceptor.
3. Try coming up with a nutritionally adequate pregnancy diet that is vegetarian, vegan, raw foods, and macrobiotic.
4. Make a list of safe and unsafe fish choices in pregnancy.
5. Make a list of high iron foods in pregnancy.
6. Create 5 easy recipes that might appeal to a client that supply 1/3 of normal protein and calcium needs in pregnancy.
7. Research current recommendations for Vitamin D in pregnancy and share that information with your preceptor.
8. Go to a health food store or pharmacy. Compare 3 prenatal supplements and give your rationale for which product(s) you would recommend to a client during pregnancy, including cost factors.
9. Role-play making nutritional recommendations to a pregnant teen.
10. Role-play making nutritional recommendations to an obese woman who is pregnant.
   Role-play making nutritional recommendations to a client who has a history of pre-eclampsia.

Learning Materials / Resources:

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

8. MEAC Essential Competencies:  


10. Students must find 1 article/study less than 5 years old. Recommended internet links as needed for latest developments in midwifery care:  
    [https://www.midwiferycollege.edu/resources-national-college-of-midw](https://www.midwiferycollege.edu/resources-national-college-of-midw)

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### Evaluation Tools / Methods:

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

Final grade for the course is based on preceptor evaluation of the following:

A. Learning Objectives count for 50% of the final grade.  
The preceptor evaluates each answer based on three elements:

1. Answers should reflect a thorough review of current literature regarding best current practices in midwifery care.
2. Each answer should be formed in the student’s own words or paraphrased from the text. The answer should be minimal, not a re-write of the entire text, but enough to show appropriate comprehension of the learning objective.
3. Student identification of sources and page numbers for each of the Learning Objectives. (Preceptor should do a random check to determine that sources cited are correctly identified.)

B. Enrichment Activities, including research essays and summaries of articles: 20% 
C. Discussions: 15% 
D. Tests and Exams: 15%

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### 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 Learning Objectives 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.

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### Learning Objectives:
A-1: The student must research, prepare & present a summary of an aspect of current best midwifery care/practices appropriate to the topic of the course from a current journal article/study.

A-2: Go to https://www.fns.usda.gov/wic/women-infants-and-children-wic Follow the link to the left to see who is eligible for WIC

A-3: Make a handout that lists locations close to where you plan to practice which include at least 1 Medicaid office, 1 food pantry, 1 Domestic Violence Shelter, and the public health department.

B. Student answers the questions below and cites the sources and page numbers.

1. Prenatal nutrition requires specific instruction as to the intake of calories and protein. Please discuss the current standard recommendations regarding calories and protein intake during pregnancy.

2. Describe the three groups of organic compounds (macronutrients) that are essential to nutrition. Include:
   a. The physiological function of each group
   b. The building block of these compounds
   c. Symptoms that can occur when a person is deficient in the compound

3. Discuss the essential vitamins. List at least 10 vitamins that are essential during pregnancy and include the following details for each:
   a. Why is it important
   b. The RDA during pregnancy
   c. A food source for the vitamin
   d. Is it fat or water soluble
   e. What are symptoms of deficiency
   f. Is excess of this vitamin toxic?

4. Discuss minerals in prenatal nutrition List at least 10 minerals that are essential during pregnancy and include the following details for each:
   a. Why is it important
   b. The RDA during pregnancy
   c. A food source for the mineral
d. Is it a macro or trace mineral  
e. What are symptoms of deficiency?  
f. Is excess of this vitamin toxic?

5. Explain why sufficient protein intake will not always provide enough calories.

6. What is a complete protein? Give at least 5 examples and include foods that can be combined to form a complete protein.

7. Discuss the benefits of consuming nutrients from food versus supplements.

8. Discuss enzymes. How are they essential to the body’s processes, how is their function associated with vitamins?

9. Discuss essential amino acids.  
   a. How many are there?  
   b. What are food sources of these amino acids  
   c. What are symptoms associated with the deficiency of essential amino acids?

10. What percentage of the United States population is born with a physical or mental handicap directly related to maternal malnutrition?

11. Discuss essential fatty acids. Include:  
    a. What they are  
    b. How they are important for fetal and maternal health  
    c. The effects deficiency

12. Discuss the purpose of the WIC program.

13. Explain fat catabolism and why it can result in neurological damage to the fetus.

14. Discuss the effects of maternal malnutrition on fetal brain growth.

15. Explain why the combination of prenatal and postnatal maternal malnutrition is so detrimental for the fetus.

16. RDAs for pregnancy need to be individualized according to body type, activity level, age, non-pregnant requirements, and gestational age. List four conditions that may require additional corrective nutritional allowances.

17. Discuss environmental or occupational conditions that might require additional nutritional allowances.
18. Discuss megaloblastic and pernicious anemia. How are they related to nutrition?

19. Discuss the affects of caffeine intake during pregnancy.

20. Discuss nutrient combining in supplements.
   a. Give at least 3 examples of vitamins or minerals that are complimentary when combined
   b. Give at least three examples of vitamins and minerals and substances that interfere with their absorption

21. Discuss the role of sodium in maintaining a healthy pregnancy. Include why the restriction of sodium intake has been implicated in the increased incidence of preeclampsia in pregnant women.

22. Discuss the definition of pre-pregnant underweight.

23. Discuss the importance of exercise during pregnancy. What types of exercise are most recommended, and what types should be avoided?

24. Discuss the importance of hydration during pregnancy.
   a. What are the benefits of drinking adequate water during pregnancy?
   b. What are the risks of over-hydrating during pregnancy?
   c. What is the recommended amount of water to be consumed daily by the “average” pregnant woman

25. Explain why an increase of calories and protein is necessary to prevent preeclampsia and eclampsia when excessive weight gain is partly or completely attributable to edema.

26. Discuss ways that women with the following diets may need to adjust their nutrient intake during pregnancy in order to fulfill necessary calorie, protein, vitamin, and mineral requirements:
   a. Vegetarian
   b. Vegan
   c. Raw-food (fruititarian) diet
   d. Macrobiotic diet

27. Discuss ways to assess a client’s nutrient intake:
   a. What tools can a midwife use to do this?
   b. How often should this assessment occur?
28. Discuss the importance of understanding restrictions to a client’s diet. In your discussion include an overview of ways to communicate about restrictions of the following kinds:
   a. Economic
   b. Religious
   c. Cultural and ethnic
29. Define pica. Discuss what can be done to alleviate it.
30. Discuss healthy maternal weight gain during pregnancy. What is the range of what is considered healthy?
31. Discuss psychological issues that may be a barrier to adequate nutrition during pregnancy.