

BINGHAMTON UNIVERSITY/SUNY
DEPARTMENT OF BIOLOGICAL SCIENCES
DECKER SCHOOL OF NURSING

BIOL 282T/NURS 343

Becoming an Everyday Scientist: Neighborhoods and Quality of Life

COURSE OUTLINE

CREDIT HOURS: 2 credits

TIME AND PLACE: Wednesdays from 5:50 - 7:50 PM

Science III Room 357

FACULTY:

Susan Seibold-Simpson, PhD, MPH, RN, FNP

Decker School of Nursing

Office: Academic Building B Room 306

Phone: 607.777.5841

Email: ssimpson@binghamton.edu

Office Hours: Tuesday 2-4, Wednesday 11-3, and by appointment

Richard A. Kauffman, PhD

Department of Biological Sciences

Office: Science III - 361

Phone: 607.777.4527

Email: rkauffm1@binghamton.edu

PREREQUISITES: None

CONCURRENT COURSES: Dependent on individualized program plan

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In accordance with the Americans with Disabilities Act, reasonable accommodation for learners with disability related needs will be determined on an individual basis. Please contact one of the instructors if you have special needs.

Content in this course outline is subject to change.

This is a designated "ASL" or Academic Service-Learning course, which is credit-bearing experience with participation in an organized direct or indirect service activity that meets a community need and connects course content to specific learning outcomes with structured reflection.

COURSE DESCRIPTION:

Human beings effect and are affected by the environments they live and work in. This course will provide learners with opportunities to critically consider the neighborhood as a research setting for its impact on quality of life, as well as how communities can work to improve the Quality of Life, including, but not limited, to physical wellbeing, material wellbeing, social wellbeing, emotional wellbeing, and and the development and activity of their residents. Learners will participate in an ongoing research study, the Binghamton Neighborhood Project, as we bridge the divide between “basic science” and the “applied sciences” for developing and implementing strategies for intentional change. Additionally, learners will develop their own research questions and tentative proposals related to neighborhoods and explore possibilities for interventions.

COURSE OBJECTIVES:

The learner will:

1. Explore different methods of research design as they relate to neighborhoods and quality of life.
2. Participate in community service activities to examine quality of life issues within our communities.
3. Critically reflect on service learning experiences to to identify how community organizations address quality of life issues and how research can be used to further improve service provision and community level outcomes.
4. Demonstrate understanding of how research questions are developed.
5. Compare alternative methods of data collection.
6. Examine the impact of neighborhoods on a variety of quality of life outcomes.
7. Describe different features of neighborhoods as they relate to health, including the collective and structural aspects.
8. Discuss alternative data analysis strategies.
9. Evaluate existing research literature related to neighborhoods and health.
10. Relate research and practice in order to apply findings to guide interventions and further research.
11. Articulate a research proposal to address one aspect of neighborhoods and quality of life.
12. Participate in reliable data collection at the neighborhood level.

DATE	TOPIC	ASSIGNMENT-MUST BE COMPLETED PRIOR TO CLASS. ADDITIONAL REQUIREMENTS FOR EACH WEEK IN FOLDER ON BLACKBOARD
Week 1 1/28/15	Introduction to course - Overview of The Binghamton Neighborhood Project; Who we are and what we do.	<u>Readings:</u> Wilson, D. S. (2011). <i>The neighborhood project: Using evolution to improve my city, one block at a time</i> . Hachette Digital, Inc. - Introduction & Chapters 1-2, pp. 3-39 .

	- Using the Evolutionary Toolkit to understand human behavior	Suggested Reading for an introductory crash course in cultural evolution: Boyd, R., Richerson, P. J., & Henrich, J. (2011). The cultural niche: Why social learning is essential for human adaptation . Proceedings of the National Academy of Sciences, 108(Supplement 2), 10918-10925.
Week 2 2/4/2015	Neighborhood and Community Theory BNP data as examples Quality of Life/Early Childhood as a focus and opportunity	<p><u>Readings:</u> Wilson, D. S., Hayes, S. C., Biglan, A., & Embry, D. D. (2013). Evolving the future: Toward a science of intentional change. Behavioral and Brain Sciences, 395-415. (Commentaries & Responses after article is optional)</p> <p>Brooks-Gunn, J., Duncan, G. J., Klebanov, P. K., & Sealand, N. (1993). Do neighborhoods influence child and adolescent development?. <i>American journal of sociology</i>, 353-395.</p> <p>Leventhal, T., & Brooks-Gunn, J. (2004). A randomized study of neighborhood effects on low-income children's educational outcomes. <i>Developmental psychology</i>, 40(4), 488.</p> <p>Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: the effects of neighborhood residence on child and adolescent outcomes. <i>Psychological bulletin</i>, 126(2), 309.</p> <p>DB based on readings</p> <p><u>Fieldwork:</u> Windshield Survey - 3 hours Documentation either with windshield survey form or in field notes.</p>
Week 3 2/11/2015	Community-Based Participatory Research -with Early Childhood as a focus	<p><u>Readings:</u> Israel et al., Community-based participatory research: Lessons learned from the Centers for Children's Environmental Health and Disease Prevention Research</p> <p>McAllister et al, Parents, practitioners, and researchers: Community-based participatory research with early head start http://ctb.ku.edu/en/table-of-contents/evaluate/evaluation/intervention-research/main</p> <p><u>Fieldwork :</u></p>

		<p>Spend 3 hours in a location within the City of Binghamton and be a nonparticipant observer.</p> <p>Field notes #1 due</p>
<p>Week 4 2/18/15</p>	<p>Service Learning Groups for 1 hr. and overview of general narrative-- "applying the toolkit" stuff</p>	<p><u>Readings:</u> Sletto, Educating Reflective Practitioners: Learning to Embrace the Unexpected through Service Learning</p> <p>Moore et al., Civic Engagement among Low-Income and Low-Wealth Families: In Their Words</p> <p>Zeldin & Topitzes, Neighborhood experiences, community connection, and positive beliefs among adolescents among urban adults and youth.</p> <p>http://www.binghamton.edu/cce/index.html</p> <p>http://www.binghamton.edu/cce/faqs.html</p> <p>DB regarding reading</p>
<p>Week 5 2/25/15</p>	<p>Neighborhoods, Poverty, and Quality of Life: Developing a Research Question</p>	<p><u>Readings:</u> Wilson (2011) The Neighborhood Project, Ch.5&6</p> <p>Wilson, D. S., O'Brien, D. T., & Sesma, A. (2009). Human prosociality from an evolutionary perspective: variation and correlations at a city-wide scale. <i>Evolution and Human Behavior</i>, 30(3), 190-200.</p> <p>Patten, pp. 3, 5, 9, 11, 13, & 15</p> <p>Preliminary research topics (general) due via DB, identify search terms/topics for next week.</p> <p>Suggested Reading: Biglan, A., Flay, B. R., Embry, D. D., & Sandler, I. N. (2012). The critical role of nurturing environments for promoting human well-being. <i>American Psychologist</i>, 67(4), 257-271.</p> <p><u>Fieldwork:</u> Initial visit to community agency</p>
<p>Week 6 3/4/15</p>	<p>Lit review - library training/refworks</p>	<p><u>Readings:</u></p>

		<p>Jacquez et al, Youth as Partners, Participants or Passive Recipients: A Review of Children and Adolescents in Community-Based Participatory Research (CBPR)</p> <p>Patten, 29-41</p> <p>DB regarding Community agency's role in neighborhoods as it relates to poverty</p> <p><u>Fieldwork:</u> Second visit to community agency</p>
<p>Week 7 3/11/15</p>	<p>Reflecting on Service Learning Process/Examining Relationships</p>	<p><u>Readings:</u> Each student proposes 1 article and 1 question specific to their research problem - can be either qualitative or quantitative, but must be a research article, not a review. Due on Monday, 3/8/2015 at noon.</p> <p><u>Fieldwork:</u> Third visit to community agency</p> <p>Research Paper assignment: Learners will indicate their research problem at the neighborhood level. This will be phrased as the research problem and purpose of the proposed study</p>
<p>Week 8 3/18/15</p>	<p>Research Design: Qualitative versus quantitative - Developing and answering questions/Evolutionary Perspectives</p>	<p><u>Readings:</u> Readings for Discussion Board Patten, pp. 19-21</p> <p><u>Fieldwork:</u> 4th visit to agency</p> <p>DB responding to article questions</p>
<p>Week 9 3/25/15</p>	<p>Research Design (cont): Reliability and Validity/ Impact Validity/Sampling/Developing Questions (cont.)</p>	<p><u>Readings:</u> Massey, S. G. & Barreras, R. E. (2013). Introducing Impact Validity. Journal of Social Issues, 64(4), 615-632.</p> <p>Sampling Patten, p. 43-57; 149-151</p> <p>Validity and Reliability Patten, p. 61-81, 89-91, 155-156</p> <p>Fieldwork: Final visit with agency</p>

Week 10 4/1/15	Data Collection/Measurement - Reliability and Validity - threats to validity	<u>Readings:</u> Student Attitudes draft paper Patten: Return to pp. 61-81, 91-93
Week 11 break		
Week 12 4/15/15	Data analysis/statistics/kriging	<u>Readings:</u> Patten, pp. 101-131, 159-161, 199 Second assignment due: List of a minimum of 3 articles, research design, sample, and data collection and data measurement
Week 13 4/22/15	Fieldwork instead of class	<u>Readings:</u> Wilson, D. S., Kauffman Jr, R. A., & Purdy, M. S. (2011). A program for at-risk high school students informed by evolutionary science . PloS one, 6(11), e27826. Embry, D. D. (2004). Community- based prevention using simple, low- cost, evidence- based kernels and behavior vaccines . <i>Journal of Community Psychology</i> , 32(5), 575-591. Fieldwork: Data collection - additional 3 hours DB - readings
Week 14 4/29/15	Developing Interventions/Discussion of implications and conclusions and limitations	Final Project Due Fieldwork: Data collection
Week 15 5/6/15	Presentation of Projects TWO HOUR CLASS	

TEACHING STRATEGIES:

Lecture, discussions, readings, small-group work, library work, and field work including data collection and service learning.

COURSE REQUIREMENTS:

Each learner will be required to complete a minimum of 30 hours of fieldwork.

All learners must complete the Human Subjects Training Module before doing field work.

Go to:

http://research.binghamton.edu/compliance/humansubjects/educational_Requirements.php

Complete:

Collaborative IRB Training Initiative (CITI) Group 4: Social/Behavioral

When you have completed the training module, please send me either the email from Diane Bulizak indicating you have successfully completed the training OR a screen shot from the final screen indicating you have passed. **This needs to be completed by 2/4/2015**

COURSE DELIVERABLES:

1. **Field notes:** [10] Each learner is required to keep field notes for all the time spent in the field. The field notes should include:
 - a. When you began,
 - b. when you finished, (PLEASE SUM TO GIVE US THE TOTAL HOURS)
 - c. where you were located (MUST BE WITHIN BINGHAMTON)
 - d. what occurred
 - i. What occurred can (and possibly should) include people, sounds, smells, context (both structural and interpersonal)

The following template will be used to guide the field work experience reflection:

- Before you go out in field:
 - What were your expectations before this field experience?
 - After your time in the field (preferably completed immediately after experience).
 - Describe what you experienced (heard, saw, touched, felt);
 - Describe your reaction (angry, sad, elated, puzzled). This needs to be more than a single sentence; it should be several paragraphs in length.

For field work that is with a community agency, please add the following:

- What was the most significant thing you learned from the community organization during this particular experience?
- What other organizations are involved with this agency in addressing the issue?
- What challenges and strengths exist for the agency and the community?

Examples of a fieldwork discussion board might include:

- How did your own identity influence your interpretation or what you experienced and your reaction to it - include a copy the specific field note for that day.

- How does history or culture shape this issue today, particularly within an evolutionary perspective.
- Evaluate the community agency's approach to addressing the particular issue? What might be added to make the process more inclusive of community input?
- How can what you have learned be applied to your future personal or professional goals?
- What is your relationship to the topic?

This is *not* research - it is documentation of your experience. You should not include any information that would identify people (e.g., names or other identifiers). Your reaction is critical - what emotions did you experience, what questions were raised, and why do you think this might have happened. For more information on field notes, go to Google scholar and type in *Methods - Field Notes* and view some of the citations. Field notes can be handwritten or typed. This is our way to document your field work hours. Field notes will be submitted 4 times throughout the semester.

Students are responsible for 30 hours of fieldwork; a minimum of 9 of these hours will be conducting data collection for the City-Wide survey. Students should plan on spending 3 hours a week in the field except for the weeks when we have 2 hours of class.

Week 2-3 (6 hrs.):

- Nonparticipant observation - have preliminary ideas regarding what might be a research question. Work in pairs or groups of 3, to be established at the first class.
- Field notes due to instructors after week 3.

Weeks 5-9 (15 hrs.):

- Engagement with community based partner - further examination of community problem and resources in community addressing problem
- Identifying items for survey?

Weeks 13-14 CWS data collection (9 hrs).

- Review of the survey - addition of new items
- How do do data collection
- # of hours in the field

2. **Preliminary research proposal** and class presentation on a topic related to neighborhoods, poverty, and quality of life. The paper should be approximately 8 - 10 pages and use APA style (<http://owl.english.purdue.edu/owl/section/2/10/>). The students will develop a research proposal in pairs. Papers will be written individually and each student is responsible for finding their own citations, but the presentations will be done in pairs.

a. Definition of research problem:

- i. Explain what is the problem or phenomena that you are exploring/studying. Generally, start by indicating *why* it is a problem or phenomena of interest. For the purposes of this paper, you can support why is it a problem or phenomena of interest based on your initial field work as well. You might also provide national statistics about the problem directly

or indirectly. For example, if you are interested in a health outcome, you might indicate that the phenomena is described in the Healthy People 2020 agenda. Or it may have been identified in a previous course (cite the supporting literature). Or it has been identified in the popular media but you wonder if this is a true problem or hype? It is OK for this section to include “I” statements. This should end with a research question, often involving description, identifying relationships or testing a hypothesis based on theory, or discussing generating a theory. This section does not propose the solution, only identify the problem and why it is a problem and what is missing that research might answer. It is OK to be creative and subjective, but helpful to provide empiric, factual information as well.

b. What is known about problem

i. A minimum of eight sources from scholarly journals

This is the main section of the paper. This is where you discuss what is known about the problem/phenomena. You should have citations that discuss the problem; that discuss what is known about potential relationships (associative [related to] or cause and effect). If previous studies have proposed solutions, you should discuss those studies as well. This section is intended to be scholarly, not creative.

c. Research design:

i. Qualitative or Quantitative or mixed

ii. Experimental or non-experimental

Based on what you have learned in section B, you next set out to propose what you think is the best way to answer your research question. For example, do you want to describe in great detail and analyze words for themes (qualitative) or do you want to collect objective data (self-report, observation, biologic measures for example) to be analyzed quantitatively. If you want to go the quantitative route, do you plan to conduct an experiment (e.g., test an intervention) or do you want to propose a non-experimental study (describe, explain, predict relationships).

d. Sampling

e. Data collection strategies

f. Data measurement

Measurement should again be driven by the existing literature on the topic. Think about the key words you searched and how those concepts have been described and measured in previous studies.

g. Potential limitations

For the purposes of this paper, this refers to potential challenges you might anticipate could arise during the course of conducting research. It should also be driven by the existing literature as well as your field work experiences.

3. Presentation of preliminary research proposal to full class.

a. PowerPoint presentation

b. All content areas must be presented.

EVALUATION METHODS:

A-	90 - 92
B+	87 - 89
B	83 - 86
B-	80 - 82
C+	77 - 79
C	73 - 76
C-	70 - 72
D	60-69
F	< 60

GRADING POLICY

Policy regarding late assignments:

If a student anticipates that s/he will be unable to complete a project by the assigned due date, the student should contact the instructor about the possibility of an extension. When requesting an extension, the student should indicate when they plan to have the assignment completed. If the student does not request or is not granted an extension:

- **5 %** of possible grade will be deducted from the final grade on the first day after the due date and time of the assignment. **2 %** of possible grade will be deducted from the final grade of the paper on the second day, and on each succeeding day, after the due date of the assignment (unless the student has made a prior arrangement with the instructor) (i.e., if paper is due at 1500 10/4, from 1500 10/4 to 1500, 10/5 is the first date late).

Course Policy on Rounding of Grades:

Final course grades will be rounded from one-hundredth of a point, using 0.05 as the cutoff for rounding. Example: If your grade is 92.45 that will round to 92.5 which will then round to the 93.

Drafts:

Learners may submit a draft of their work for feedback from faculty prior to final submission. A draft may be a complete project or a portion of that project. Faculty will not grade the draft but will indicate areas needing improvement. The deadline for draft submission will be determined by the faculty.

Second Read Policy:

Students may request a “second read” for a paper within 10 working days of the return of the paper, if they feel the grade is inappropriate. This follows the Student Grievance Procedures guidelines for the completion of the informal process and is delineated in the DSON Student Handbook. Students must first

discuss the grade and paper with the faculty member who graded it. If a second read is requested, course coordinator(s) or the Director of the Undergraduate Program will assign a faculty member to read a clean copy of the paper that is provided by the student. The grade may be higher, the same, or lower than the grade assigned by the first reader. After consultation with the first reader, the second reader's grade will be the official grade.

Grievance Policy:

Any appeal related to a grade awarded to a student in this course must be filed in accordance with Decker School of Nursing policies (see Decker School of Nursing handbook on-line).

REQUIRED TEXTBOOKS:

Patten, M. L. (2012). *Understanding research methods: An overview of the essentials* (8th ed.).
Glendale, CA: Pyczak Publishing

NURSING STUDENTS ONLY:

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author
ISBN-13:978-1-4338-05615

RECOMMENDED:

Wilson, D.S. (2011). *The Binghamton Neighborhood Project: Using evolution to improve my city, one block at a time*. New York, NY: Little, Brown, & Company

Grading Criteria for Individual Student Discussion Forum Postings

CONTENT & ASSESSMENT AREAS	POINTS
<p>Posting was done according to the established due date and time.</p> <p>Discussions indicate mastery of the discussion topic, the assigned materials, and/or other materials are cited in the postings.</p> <p>Replies to classmate(s) consistently demonstrate critical analysis of other student's discussions. (Responses to a minimum of two classmates)</p> <p>Demonstrates ability to initiate and maintain interactive discussions.</p> <p>Maintains a respectful dialogue in all postings.</p> <p>Consistently utilizes professional terms and scholarly writing in responses (no IM slang)</p> <p>Consistently correct use of APA for citations and reference list</p>	<p>FULL Credit = 1 point/ post</p>
<p>Posting was done late, but within 24 hours of the due date and time.</p> <p>Discussions indicate some knowledge of the discussion topic with brief mention of assigned materials.</p> <p>Replies to classmates demonstrate some evidence of reading other student's discussions.</p> <p>Lack of scholarly writing and use of professional terms in responses.</p> <p>Inconsistent use of APA for citations and reference list</p>	<p>HALF Credit = 0.5 points for post</p>
<p>Postings were done more than 24 hours after the due date or not at all.</p> <p>Consistently failed to use professional language.</p>	<p>NO Credit = Zero for assignment</p>

Discussion responses fail to demonstrate knowledge of assigned learning materials, and there is no mention of assigned material.

Writing is repetitive of another student's discussion.

Posting is plagiarized from other student's discussions.

Posting is disrespectful to other students.

Replies to classmates are vague and only indicate agreement or disagreement.

No use of citations