

**American University of Beirut  
Faculty of Health Sciences**

**PBHL 310  
Research Design  
(3 credits)  
Course Syllabus  
Fall Semester, Academic Year 2017-2018**

**Class Time and Venue:**

Lectures: Wednesdays 3:30 – 5:10 (Nabil Boustany Auditorium, Van Dyck building)

Practical sessions: Group A (PBHL 3 on AUBSIS): Thursdays 12:30 – 2:30  
Room 201 (Rm. 201 with Drs. Ghattas/Kabakian)  
Group B (PBHL – 2 on AUBSIS). Mondays 9:00 – 11:00  
(Rm. 201 with Drs. DeJong/Kabakian)  
Group C (PBHL- 1 on AUBSIS): Tuesdays 5:30 – 7:30 pm  
(Room 332 with Drs. DeJong/Kabakian)

**Instructors and Contact Details:**

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Dr. Tamar Kabakian Office: Van Dyck Rm. 304, Ext. 4665  
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**Course Description**

This course introduces the importance of research in public health and addresses the principles of research design and the methods used in both quantitative and qualitative social/public health research methodologies. Topics include the following: formulating research questions, conducting a literature review, sampling issues methods of data collection and analysis and ethical considerations in public health research. Practical and conceptual issues are both discussed. This course is a core requirement of the MPH and MS in Epidemiology.

## **Course Learning Objectives**

By the end of the course, students will:

1. Work effectively and equitably in groups on the development of a research proposal
2. Distinguish different research approaches;
3. Formulate a research question;
4. Apply the appropriate research approach to a particular research question pertaining to public health;
5. Discuss components and steps of a research proposal;
6. Demonstrate competence in identifying, obtaining, and critically reviewing literature from a variety of sources;
7. Choose an appropriate research methodology for a research question of interest (including design and sampling);
8. Develop a research proposal;
9. Identify and discuss ethical principles to the collection, maintenance, use, and dissemination of data and information.

## **Course requirements**

The course consists of two main components (quantitative and qualitative research) with a total of 28 hours of in-class lectures and 28 hours of practical work.

There are no pre-requisites for this course.

Attendance will be taken at all lectures and practical sessions.

Students are required to read the assigned readings *prior* to the class sessions, participate in class discussions and assignments.

There will be graded assignments for each component during the semester and one quiz on the first part of the course.

For the quantitative component, working in teams of 3 - 4 selected by the instructors on a random basis but within concentrations, students will choose one of the survey topics and submit a mock grant proposal for each component. The most important part in developing the proposal is the identification of a public health problem, some pressing issue or concern and defining it in researchable terms by stating specific aims. You will also receive feedback on the different parts of the proposal during the practical sessions.

Public health research is often conducted in groups, and the combination of different perspectives enriches the outcome. A vital component of this course is learning to divide the work fairly among your group, being accountable to one another for commitments made in terms of the work individuals will do, and having shared ownership over the quality of the final product. We will ask you to submit in your Moodle forum a plan for how the group work will be distributed, and upon

submission to add a statement on Moodle about each individual's contributions to the final work and this will be assessed. Performance in groups will be emphasized in this course and we recommend that any problems be addressed promptly and where necessary raised with the course instructors.

Designing (but not implementing) a primary research project is required of all students. The group members need to agree on a topic together. It should be a topic ALL members are interested in so choosing a good topic will take a lot of discussion among yourselves. Note that you do not necessarily need to focus on Lebanon – you could choose to focus on another country of the Arab or wider Eastern Mediterranean region. It is very important that the topic a) involves primary research collection from human subjects; and b) could be implemented by a group of students at FHS/AUB. Other than that, the choice is yours. Some examples of topics that groups have chosen from previous years are the following:

- *Physical activity among junior high school students in urban areas in Lebanon (or the region);*
- *Oral health among 6-11 years old children in Beirut;*
- *HIV testing for displaced people in Sudan;*
- *Social determinants of Dengue Fever in Sudan*
- *Social support and perceived stress among adults age 65 years and above living in rural areas in Lebanon (or the region);*
- *Compliance with hypertension medication within a specific population;*
- *Nutritional status among elderly nursing home residents;*
- *Reproductive health care needs of foreign domestic workers in Lebanon;*
- *Quality of care of primary care facilities in rural areas;*
- *Satisfaction with the quality of delivery care in delivery wards of hospitals in Khartoum;*
- *Male attitudes towards female genital mutilation in Sudan;*
- *Caffeine consumption among pregnant women;*
- *Public attitudes towards the new tobacco law in Lebanon;*
- *Behavioral risk factors among health professionals;*
- *Compliance with patient safety regulations in hospitals in Lebanon;*
- *Reproductive health needs of Syrian refugees in Lebanon*

The final proposal will include the following (see outline on Moodle):

- Brief Introduction and objectives of study
- Background including literature review
- Methods (sampling, concepts and indicators, questionnaire, and ethical issues)

To prepare for the final proposal, there will be three assignments – all of which are components of the final proposal. The first one will be individual and the second and third will be group assignments, submitted via the group forum on Moodle. These

will be graded and you will receive feedback on Moodle that can inform the revisions for the final proposal. In addition, at the end of the course you will be asked to submit a written reflection on the real-world implementation challenges and potential limitations of both your proposed quantitative and qualitative research projects. Guidelines on each assignment will be posted on Moodle.

- Assignment 1 (Individual): Introduction and objectives of study (**due on Moodle Sunday September 24 by 11 pm**);
- Assignment 2 (Group): Background and literature review (**due on Moodle Sunday, October 8 by 11 pm**);
- Assignment 3 (Group): - Methods (including concepts and indicators, sampling, data collection) (**due on Moodle Sunday, October 29 by 11 pm**)
- The final proposal (Group) is **due Tuesday, November 8 by 11 pm** on Moodle

For the qualitative component, each group will write a concept paper on the same subject matter as the proposal developed for the quantitative section in this course. Each group will submit two assignments on Moodle according to the following schedule:

- Assignment 4: Introduction and background (**due November 22 by 11 pm**)
- Assignment 5: Methods (type of design, role of the researcher, data collection and analysis, ethical considerations) (**due December 10 by 11pm**)

The final reflection, which combines both the quantitative and qualitative parts of the course, is due on Moodle **Wednesday, December 13 by 11 pm**.

All assignments must be turned in on Moodle by the due date; there will be a 5% penalty for late submissions.

### **Moodle**

Your lecture handouts, announcements and feedback on proposal drafts will be posted in MOODLE, an on-line learning environment supported by AUB to which faculty and students registered on this course will have access. All key documents for the course will be posted on Moodle and you can submit and instructors will provide feedback on your assignments via Moodle. We will be creating “fora” in Moodle for groups of students to work together. You will not receive messages via Moodle until you have signed into the course on Moodle, so please do that as soon as possible. Please also post your picture on your profile so instructors and students can identify you.

### Evaluation criteria

Number	Form of Assessment	Percentage of total grade for course	To assess which learning objective of course:
1	Assignments: Quantitative (3 in total, the first is individual for 10% and the 2 <sup>nd</sup> and 3 <sup>rd</sup> will be group assignments for 10% each)	30%	1,2, 6
2	Proposal Quantitative (group)	15%	1, 2, 3, 4, 5, 6, 7, 8,9
3	Final Quiz for Quantitative Component	20%	2,4,9
4	Assignments: Qualitative First assignment 5% Second assignment 10%	15%	1, 2 3,4,6,7,8,9
5	Short quiz on Moodle on qualitative concepts	5%	2,7,9
6	Contribution to group work	5%	1
7	Individual reflection assignment at conclusion of course on the potential implementation challenges and limitations of the research	10%	2, 4, 7, 9

### Textbooks

Bryman, A. (2016) *Social Research Methods* Oxford: Oxford Univ. Press, 5th edition. Copies of this book are available in the AUB bookstore and should be purchased by all students. A copy of the book will be kept with the EPH Department (Asma Shehab). This is a very useful reference book to have for your research projects in the future. [Note that the textbook is on social research not public health specifically but uses many health examples]

Bowling A. *Research Methods in Health: investigating health and health services*. 4th edition. Open University Press, Maidenhead, Philadelphia, 2014. Available at AUB Bookstore and is optional to purchase for the course (but is a useful text to have).

Additional readings/resources will be made available on Moodle.

## **Other Resources**

*Assistance on writing:* Note that FHS will hold a series of writing workshops on how to write an essay at FHS that will take place on consecutive Thursdays of October 12, October 19 and October 26 from 7:30 to 9:00 pm in Van Dyck (Nabil Boustany Auditorium). The AUB also has a Writing Center where you can get individual advice on writing.

*Saab Medical Library orientation* There will be an orientation on how to use Saab Medical Library by the Saab Medical Librarian, Ms Aida Farha, during the regular lecture time on Wednesday, September 16, 3:30 – 5:10. This is an extremely important session for the course and if you cannot make it at that time you will need to take another session by Ms. Aida Farha at Saab Library and provide proof that you have taken it. You will also have ‘hands on’ application time in the practicals on this.

## **Academic integrity:**

Education is demanding and you need to properly manage your time. Do not hesitate to use the resources around you but do not cut corners. Cheating and plagiarism will not be tolerated. Please review the Student Code of Conduct in your handbook and familiarize yourself with definitions and penalties related to plagiarism. If you’re in doubt about what constitutes plagiarism, ask your instructor because it is your responsibility to know. The American University of Beirut has a strict anti-cheating and anti-plagiarism policy. Penalties include failing marks on the assignment in question, suspension or expulsion from University and a permanent mention of the disciplinary action in the student’s records.

AUB strives to make learning experiences as accessible as possible. If you anticipate or experience academic barriers due to a disability (including mental health, chronic or temporary medical conditions), please inform me immediately so that we can privately discuss options. In order to help establish reasonable accommodations and facilitate a smooth accommodations process, you are encouraged to contact the Accessible Education Office: [accessibility@aub.edu.lb](mailto:accessibility@aub.edu.lb); +961-1-350000, x3246; West Hall, 314

## **Non-Discrimination – Title IX – AUB**

AUB is committed to facilitating a campus free of all forms of discrimination including sex/gender-based harassment prohibited by Title IX. The University’s non-discrimination policy applies to, and protects, all students, faculty, and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University’s Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at [www.aub.edu.lb/titleix](http://www.aub.edu.lb/titleix). **To report an incident**, contact the University’s Title IX Coordinator Trudi Hodges at 01-350000 ext. 2514, or [titleix@aub.edu.lb](mailto:titleix@aub.edu.lb). An anonymous report may be submitted online via EthicsPoint at [www.aub.ethicspoint.com](http://www.aub.ethicspoint.com).

## SCHEDULE OF LECTURES, PRACTICAL SESSIONS AND READINGS

Date of Lecture/Instructor	Topic/Reading	Practical Sessions
PART ONE OF COURSE: INTRODUCTION TO RESEARCH AND QUANTITATIVE RESEARCH		
Week 1: August 30/DeJong	<b><i>Introduction to the course: Syllabus Scope of health research</i></b> [Please buy the textbook and familiarize yourself with it and you could get started on the readings for the next week if you have time.]	Group A: Thursday, August 31 Group B: Monday September 4 Group C: Tuesday, September 5  <i>Topic:</i> Review of course objectives, thinking about research and criteria for choosing research topics
Week 2: Sept 6/DeJong	<b><i>Principles of Research and Research Strategies</i></b> <i>Required Reading:</i> Bryman, Chaps 1 and 2 [Note that Chapter 2 is a bit difficult so don't worry if you don't understand it all] Baum, "Researching Public Health: Behind the Qualitative-Quantitative Methodological Debate" (posted on Moodle) Optional: Bowling Chapter 6	Group A: Thursday, Sept. 7 Group B: Monday, Sept 11 Group C: Tuesday Sept. 12  <i>Topic:</i> Forming research groups, discussing processes of group work and start working on research questions
Week 3: Sept. 13/DeJong and Farha	<b><i>Compulsory Session by Ms. Aida Farha (Saab Medical Library) on how to conduct literature searches using electronic databases (any student who misses this session will need to make it up)</i></b> <i>Required Reading:</i> Bryman, Chapter 5	Group A: Sept. 14 Group B: Sept. 18 Group C: Sept 19  <i>Topic:</i> Refining the question and conducting literature reviews – in the first hour of each practical you will meet in FHS computer lab for a 'hands on' practice on electronic data base

		searching with <a href="#">Ms. Aida Farha Ms. Layal Hneiny</a> of Saab Medical Library
Week 4: September 20/Kabakian	<p><b><i>Process of Qualitative Research (including Research Design)</i></b>  <i>Required Reading:</i>  Bryman, Chapter 17</p> <p><b><i>NOTE:</i></b>  <b><i>ASSIGNMENT 1 DUE ON MOODLE BY SUNDAY, SEPTEMBER 24, 11 pm</i></b></p>	<p>Group A: Sep. 21  Group B: Sept. 25  Group C: Sept. 26</p> <p><i>Topic:</i> First part of each practical will be discussion about differences between quantitative vs qualitative research strategies</p>
Week 4: September 27/DeJong	<p><b><i>Process of Quantitative Research</i></b>  <i>Required reading:</i>  Bryman, Chapter 3</p>	<p>Group A: Sept 28  Group B: will not meet due to Ashoura holiday so please see Dr. DeJong  Group C: October 3</p> <p><i>Topic:</i> Refining research question and discussing the various research designs</p>
Week 5: October 4/DeJong	<p><b><i>Quantitative Research: Concepts and Measurement</i></b>  <i>Reading:</i> Bryman, Chapter 7  <b><i>NOTE:</i></b>  <b><i>ASSIGNMENT 2 DUE Sunday, October 8 by 11 pm on MOODLE</i></b></p>	<p>Group A: Oct. 5  Group B: Oct. 9  Group C: Oct. 10</p> <p><i>Topic:</i> Refining the measurement of concepts in your research question by choosing indicators</p>
Week 6: October 11/DeJong	<p><b><i>Quantitative Research: Data Collection Approaches</i></b>  <i>Reading:</i> Bryman, Chap 9, 10 and 11 [you don't need to read these in detail but do familiarize yourself with the different types of data collection]</p>	<p>Group A: October 12  Group B: October 16  Group C: October 17</p> <p><i>Topic:</i> Discussion about your strategy for data collection</p>

<p>Week 7: October 18/DeJong</p>	<p><b><i>Ethical issues in Public Health Research</i></b> <i>Reading:</i> Bryman, Chap 6 Callahan and Jennings, “Ethics and Public Health: forging a strong relationship” (on Moodle)</p>	<p>Group A: October 19 Group B: October 23 Group C: October 24</p> <p><i>Topic:</i> Ethical dilemmas in your research and how you might minimize risks to research subjects and maximize benefit</p>
<p>Week 8: October 25/Chaaya</p>	<p><b><i>Population Sampling</i></b> <i>Required Reading:</i> Bryman, Chap 8</p> <p><b>ASSIGNMENT 3 DUE Sunday, October 29 by 11 pm on MOODLE</b></p>	<p>Group A: Oct. 26 Group B: Oct. 30 Group C: Oct. 31</p> <p><i>Topic:</i> Sampling – defining your population of interest and sampling strategy</p>
<p>Week 9: November 1</p>	<p>QUIZ on First part of Course (on Moodle)</p> <p><b>NOTE: FINAL PROPOSAL DUE TUESDAY, NOVEMBER 8 ON MOODLE WITH HARD COPY TO INSTRUCTOR</b></p>	<p><i>All practical sessions will be with Dr. Kabakian from now on in the course</i></p> <p>Group A: no session on Thursday, Nov. 3 Group B: No session on Wed Nov 9 Group C: No session on Thur Nov 10</p> <p><i>Please schedule meetings with your instructor on first part of course if you have any outstanding questions to finalize your quantitative proposal during this week</i></p>
<p>END OF FIRST PART OF COURSE – BEGINNING PART TWO: QUALITATIVE RESEARCH</p>		
<p>Week 10: November 8/Kabakian</p>	<p><b><i>Interviewing in qualitative research</i></b></p>	<p>Group A: Thursday, Nov 9 Group B:</p>

	<i>Required Reading:</i> Bryman, Chap 20	Monday Nov 13 Group C: Tuesday Nov. 14  <i>Topic:</i> Research questions in qualitative research
Week 11: November 15/Kabakian	<b><i>Focus Groups</i></b> <i>Required Reading:</i> Bryman, Chap 21	Group A: November 16 Group B: November 20 Group C: November 21  <i>Topic:</i> Application on focus group discussions
Week 12: November 22/Kabakian	<b><i>No lecture on Nov 22</i></b>  <b><i>Observation (lecture given with the practical sessions)</i></b> <i>Required reading:</i> Bryman, Chap 19	Group A: November 23 Group B: November 27 Group C: November 28  <i>Topic:</i> Identifying respondents and raising questions
Week 13: November 29/Kabakian	<b><i>Qualitative Analysis</i></b>  <i>Required reading:</i> Bryman Chap 24.	Group A: November 30 1 Group B: December 4 Group C: December 5  <i>Topic:</i> Qualitative analysis
Week 14: December 6/Kabakian	<b><i>Mixed methods</i></b> <i>Required reading:</i> Bryman Chap 27  <b>Individual reflection due on Moodle Dec. 13 by 11 pm</b>	<i>Short quiz on Moodle</i>  <i>No practical sessions</i>

*Version of PBHL 310Syllabus2017 (as of August 29)*