Graduate School of Public Health
Educational Policies and Curriculum Committee
Agenda for October 6, 2016

1:30-3:30 p.m.
110 Parran Hall

A. New Business:

1. Introduction of New Student Representatives, Patricia Documet
2. Course Modification – BIOST 2094 | *Advanced R Computing*, George Tseng
3. Course Modification – IDM 2002 | *Molecular Virology*, David Rowe
4. EPIDEM Course Description Review, Nancy Glynn
5. Summer Core Course Evaluation Review, All
6. Review of updated school-wide OMET course evaluation questions, Robin Leaf
7. Associate Dean for Education Updates, Robin Leaf on behalf of Eleanor Feingold
8. Schedule Spring Semester Meetings, All

Next meeting November 3, 2016 | 1:30-3:30pm, Parran 110

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(Revised: 9/22/2015)

REQUEST FOR APPROVAL OF NEW COURSES AND COURSE CHANGES

1. **General Instructions**:

   a. Faculty should submit this form and the associated syllabus following the Pitt Public Health Syllabus Guidelines and the Syllabus Checklist (on pages 4 and 5) **by e-mail** to Patricia Documet, Chair (pdocumet@pitt.edu) and Robin Leaf, EPCC Staff Liaison (ral9@pitt.edu). If you choose not to include all the information detailed on the Syllabus Guidelines in your course syllabus for distribution to students, please attach this information to the proposal.

   b. The initiating Department is asked to submit one hard copy of this completed form with the proper signatures, syllabus and other materials (if any) to Robin Leaf in Student Affairs **at least one week prior** to the EPCC meeting. If this target date is not met, the proposal will be deferred for consideration at the next meeting scheduled.

   c. You will be contacted by the EPCC Chair or the EPCC Staff Liaison to schedule a presentation and discussion of your program/course proposal with the Committee, if possible at the next scheduled EPCC meeting.

2. **Review based on the following (check all which apply):**

   __ New course, not previously approved
   ___ Course title change
   ___ Cross-listing only
   (Specify academic unit & course number): _____

   _X_ Course modification (major)
   ___ Special topics course content
   ___ Pitt Public Health Core Course
   ___ Practicum, internship, field placement

3. **Course designation:**

   Course Number _BIOST 2094__ Title ___Advanced R computing_____ Credits __2_

4. **Cross-listing**:

   If you want to cross-list this course in any other Pitt Public Health department or any other school of the University, specify which department(s) and School(s) and provide brief justification.

   None

5. **Course Instructors:**

   (Indicate type of Pitt Public Health faculty appointment,* and percentage of total course time/effort anticipated. For any instructor who does not hold a Pitt Public Health faculty appointment, indicate her/his title and affiliation.)

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* The principal instructor for any Pitt Public Health course must have a primary, secondary or adjunct appointment in the school.

a. Principal (supervising) instructor: George Tseng (Professor, Department of Biostatistics, human genetics and computational biology)

b. Co-instructors (if any):
Tianzhou Ma (senior PhD student in Biostatistics) 50% teaching duty.
Zhiguang Huo (senior PhD student in Biostatistics) 50% teaching duty.

6. **Statement of the course for *Course Inventory***. Include purpose of course; summary of prerequisites, if any; general course content; and method of conducting course (e.g., lecture, laboratory, field work, etc.).

- Purpose of course: BIOST 2094 is an advanced statistical computing course using R designed for graduate level biostatistics students with basic R programming background. We have listed 7 purposes of this course.
    1. Write reliable, transparent and efficient programs in R
    2. Produce informative graphical descriptions of data using advanced R graphical tools
    3. Understand what functional programming means and why it is useful
    4. Analyze data using descriptive and inferential statistics and through model fitting
    5. Know which operations in R are slow and how to improve computation
    6. Know how to debug, organize the codes and create R package with clear documentation and maintain R package.
    7. Learning R markdown and reproducible research.
- Summary of prerequisites: BIOST2041, BIOST2043; prior programming experience expected.
- General course content: The course will cover topics, including but not limited to, R in modeling and optimization, advanced R graphics, functional programming, object-oriented field guide, efficient computing in R, GUI for R-shiny, bridge with C/C++, R package/documentation, Julia, Github etc. The course will also include real life application for students to practice the programming techniques learnt in class.
- Method of conducting course: lecture and computing lab.

7. **Student enrollment criteria/restrictions:**

a. Indicate any maximum or minimum number of students and provide justification for this limitation.

Less than 15, limited number of computers available in a computer lab.

b. If admission is by permission of instructor, state criteria to be applied.

1, Basic knowledge about statistics.
2, Basic knowledge about R or other lower level programming language.

c. Provide a brief description of any prerequisite skills or knowledge areas that are necessary for students entering this course, including any specific course prerequisites or equivalents.

BIOST2041, BIOSTAT2043, or equivalent statistics background;
Programming experience in R or other low-level languages such as C, C++, Java, Fortran, etc. Experience in SAS/Stata does not qualify.

8. **Course schedule and allocation of hours:**

a. Number of course hours per session _2_ Sessions per week _1__ Weeks per academic term __13___

b. Approximate allocation of class time (hours or %) among instructional activities:

Lectures _80%__ Seminars _____ Recitations _____ Field work _____ Laboratory _20%__
Other (specify): _____

c. Term(s) course will be offered: Fall ____ Spring __X__ Summer Term _____ Summer Session _____

9. **Grading of student performance:**
Indicate the grading system to be used (A, B, C, etc.; H, S, U); provide statement justifying use of system other than letter grade.

A, B, C, etc.;

10. **On-line course delivery:**

Indicate the extent to which you will be using on-line instructional methods in teaching this course by checking all of the options below which apply:

_X_ I plan to use the course management aspects of CourseWeb/ Blackboard (or equivalent), e.g., grade book, announcements.

___ I plan to use the interactive features of CourseWeb/Blackboard (or equivalent), e.g., discussion board, etc.

___ I have designed the course for remote (off-site) learning with little/no classroom attendance required.

___ I do not plan to use on-line instruction methods for this course (briefly explain)

11. **Relevance of course to academic programs and curricula:**

a. Describe how this course contributes to learning objectives specified for the curriculum of one or more Pitt Public Health degree or certificate programs. Indicate whether course is required for any specified degree or certificate.

Biostatistics is an innovative field that involves the design, analysis, and interpretation of data for studies in public health and medicine. Biostatistics experts arrive at conclusions about disease and health risks by evaluating and applying mathematical and statistical formulas to the factors that impact health. The key for innovative statistical methodology and biomedical data analysis relies heavily on statistical computing. R language is the most popular statistical computing software. This course is designed for advanced R computing users, since most quantitative students in GSPH usually have basic R knowledge through their course work or collaboration/research experience. This course targets on these students to equip them with advance and practical programming skills and data analysis skills in R.

b. Describe how this course addresses public health issues involving diversity (gender, race, ethnicity, culture, disability, or family status).

Most research projects related to public health diversity require rigorous experimental design, data analysis and statistical inference. Advanced programming using R help facilitate these research projects, especially when they generate big data.

12. **Signature and date of principal faculty member (include department/program) making request:**

Name/Title: _____ Date: _____

13. **Signature and date of endorsement of department chairperson:**

Name/Title: _____ Date: _____

14. (For cross-listing only)
Signature and date of endorsement of department chairperson:

Name/Title: _____ Date: _____

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(11/19/2013)

SYLLABUS CHECKLIST FOR NEW AND REVISED COURSES

Addendum to REQUEST FOR APPROVAL OF NEW COURSES AND COURSE CHANGES FORM

Objective to assist faculty to ensure syllabus contains the required and necessary elements to provide students with clear expectations of the course.

NOTE: * indicates a required element of the syllabus. If N/A is checked or this element is not included complete the information detailed on page two for all instances.

Syllabus Area	Recommended Detail * Required	Included in Your Syllabus?		
Heading	Course Number*	Yes ☒	No ☐	N/A ☐
	Course Title*	Yes ☒	No ☐	N/A ☐
	Course Meeting Time/Day of Week*	Yes ☒	No ☐	N/A ☐
	Classroom Location*	Yes ☐	No ☐	N/A ☐
Faculty Information	Office Location*	Yes ☐	No ☐	N/A ☐
	Office Hours*	Yes ☐	No ☐	N/A ☐
	Phone Number*	Yes ☐	No ☐	N/A ☐
	Email Address*	Yes ☒	No ☐	N/A ☐
	Teaching Philosophy	Yes ☒	No ☐	N/A ☐
	Teaching Assistant Contact	Yes ☐	No ☐	N/A ☐
Student Expectations in Classroom	Behavior/ Ground Rules (cell phones off, laptops off, etc.)	Yes ☐	No ☐	N/A ☐
	Recording of Lectures	Yes ☐	No ☐	N/A ☐
Course Summary	Course Description*	Yes ☒	No ☐	N/A ☐
	Learning Objectives*	Yes ☒	No ☐	N/A ☐
Materials	Required Textbooks/ Articles/Readings	Yes ☒	No ☐	N/A ☐
	Required Software	Yes ☒	No ☐	N/A ☐
	Required Equipment (including use of CourseWeb/Blackboard)	Yes ☒	No ☐	N/A ☐
	Recommended Material	Yes ☒	No ☐	N/A ☐
	Availability of Software for Purchase and/or Use	Yes ☒	No ☐	N/A ☐

Evaluation	Grading Scale*	Yes	☒	No	☐	N/A	☐
	Grading Criteria/Rubric	Yes	☐	No	☐	N/A	☐
	Late Assignment Policy	Yes	☒	No	☐	N/A	☐
Accommodation of Students with Disabilities	Pitt Public Health Statement*	Yes	☒	No	☐	N/A	☐
Academic Integrity Policy	Pitt Public Health Statement*	Yes	☒	No	☐	N/A	☐
Schedule	Topics by Session*	Yes	☒	No	☐	N/A	☐
	Reading and Written Assignments by Session*	Yes	☒	No	☐	N/A	☐
	Learning Objectives by Session	Yes	☒	No	☐	N/A	☐
	Test Dates	Yes	☐	No	☒	N/A	☐
Additional Resources	Health Sciences Library Liaison Contact Information	Yes	☐	No	☐	N/A	☐
	Writing Center Contact (if course is writing intensive)	Yes	☐	No	☐	N/A	☐

Required Information Not Included

List the Required Detail Not Included	**Reason for Not Including**

BIOST 2094 - Advanced R Computing

Spring 2017

Time and Place: TBD

Instructor: George C. Tseng, PhD (Supervising faculty)
E-mail: ctseng@pitt.edu

Instructor: Zhiguang Huo (Caleb) (Lecturer 1; senior PhD student in Biostatistics)
E-mail: zhh18@pitt.edu

Instructor: Tianzhou Ma (Charles) (Lecturer 2; senior PhD student in Biostatistics)
E-mail: tim28@pitt.edu

TA: TBD
E-mail: TBD
Office Hours: TBD

Course Description

BIOST 2094 is an advanced statistical computing course using R designed for graduate level biostatistics students with basic R programming background. The course will cover topics, including but not limited to, R in modeling and optimization, advanced R graphics, functional programming, object-oriented field guide, efficient computing in R, GUI for R-shiny, embedding C/C++, R package/documentation, Julia, Github etc. The course will also include real life application for students to practice the programming techniques learnt in class.

Prerequisites: BIOST 2041, 2043. Students are expected to have programming experiences in R or in other low-level languages such as C, C++, Java and Fortran.

Learning Objectives

1. Write reliable, transparent and efficient programs in R
2. Produce informative graphical presentations of data using advanced R graphical tools
3. Understand what functional programming means and why it is useful
4. Analyze data using descriptive and inferential statistics and through model fitting
5. Know which operations in R are slow and how to improve computation
6. Know how to debug, organize the codes and create R package with clear documentation and maintain R package.
7. Learning R markdown and reproducible research.

Textbooks:

There is no required textbook and lecture notes will be given on Blackboard. The following books are recommended references:

- Hadley Wickham, *Advanced R*, CRC Press, 2014.
- John Chambers, *Software for Data Analysis: Programming with R*, Springer, 2008.

Websites

- R Website http://www.r-project.org
- R Manuals http://cran.r-project.org/manuals.html
- Patrick Burns, The R Inferno http://www.burns-stat.com/
- R Journal http://journal.r-project.org/
- R Search engine (Internet) http://www.rseek.org/
- R Search engine (R documents) http://search.r-project.org/nmz.html
- R-bloggers http://www.r-bloggers.com
- Quick-R http://www.statmethods.net
- Google R Style Guide https://google.github.io/styleguide/Rguide.xml
- Advanced R book website http://adv-r.had.co.nz/

Software:

R, Rstudio (free online)

Student Evaluation and Grades (to be modified)

Course grades will be based on a weighted average of,

- Homework assignments 40%
- Project (individual) 30%
- Project (group) 30%

The cut-offs for computing letter grades will be: A, 100%-90%; B, 89%-80%; C, 79%-70%; D, 69%-60%; and F, <60%. Plus-minus grades will be assigned by dividing the respective intervals into thirds. Discussions of homework and project among students are allowed but each student has to write their own solution. Cheating and plagiarism is strictly not allowed and may be reported to the university. See the University of Pittsburgh's Policy on Academic Integrity at http://www.provost.pitt.edu/info/ai1.html

Grading Criteria: Homework will be graded according to the correctness of the answer. Project and presentation will depend on teamwork, contribution of each team member, content and quality of the project, coherence and organization of the presentation. https://www.cmu.edu/teaching/assessment/examples/courselevel-bycollege/hss/tools/jeria.pdf

Late Assignment policy:

Full credit will be given for assignments turned in on the due date. The assignment should be turned in during lecture, or into lecturer’s mailbox before 5pm on the due date.

80% credit for one day late.
Assignments turned into mailbox by 4:30pm the next school day after the due date will have a maximum possible credit of 80%.
50% credit for two days late.
Assignment turned into my mailbox by 4:30pm two school days after the due date will have a maximum credit of 50%.
NO credit given after two days late.
If sickness or emergency, no deduction will be taken if the lecturer is informed before the homework is due.

Mailbox
The lecturers' mailboxes are located on the third floor of Parran hall by the elevator labeled "Tianzhou Ma" or "Zhiguang Huo". (This may change after office moving in November 2016)

Homework

There will be 4 homework assignments. Students will turn-in a hard copy of their R codes and outputs in-class and submit an electronic copy via Blackboard. *Use white space and include clear comments to make code readable.*

Project

The goal of the project is to develop an R package that will be useful to other users. The instructor would randomly assign students to form small groups to work on a topic from a list provided by the instructor. The project will have two parts, an individual and group component. For the individual part each group member will submit a well-defined independently executable function that contributes to the overall purpose of the package and will be graded individually. The group will then define classes and write a set of methods to accompany the functions, write the documentation and finally create an R package of all the materials the group created. Each group will give a class presentation on their package. As part of the presentation the group will distribute their package to the class and teach the class how to use it. There will be optional advanced projects such as R web applications using "Shiny", where students may obtain bonus points.

Lecture Schedule

Date	Due	Topic
January 10, 2017		Lecture 1: Basics in R (Lecturer 1)
January 17, 2017		Lecture 2: R in modeling and optimization (Lecturer 2)
January 24, 2017	Homework 1 Distributed	Lecture 3: R graphics (Lecturer 2)
January 31, 2017	Homework 1 Due	Lecture 4: Functional programming (Lecturer 1)
February 7, 2017		Lecture 5: R coding style and convention (Lecturer 2)

February 14, 2017	Homework 2 Distributed	Lecture 6: Debugging and exception handling (Lecturer 2)
February 21, 2017	Homework 2 Due	Lecture 7: Object-Oriented Programming (Lecturer 2)
February 28, 2017	Individual Project Due	Lecture 8: Speed up R computation (Lecturer 1)
March 7, 2017	Spring Break	No Class
March 17, 2017	Homework 3 Distributed	Lecture 9: R GUI (Lecturer 1)
March 24, 2017	Homework 3 Due	Lecture 10: R documentation and package, Reproducible research (Lecturer 1)
March 31, 2017	Homework 4 Distributed	Lecture 11: Introduction to Julia (Lecturer 1)
April 7, 2017	Homework 4 Due	Lecture 12: Real project
April 14, 2017	Group Project Due	Lecture 13: Student presentation

Required Equipment :
Courseweb

Academic Integrity

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity (http://www.provost.pitt.edu/info/ai1.html). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

Disability Services

If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both the instructor and Disability Resources and Services (http://www.studenta_airs.pitt.edu/drswelcome) no later than the second week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, call (412) 648-7890 (Voice or TTD) to schedule an appointment. The Disability Resources and Services office is located in 140 William Pitt Union on the Oakland campus.

Detailed schedule topics to be covered in lectures:

Lecture 1. Basics in R

- Basic concepts and implementation (R console, object, function, package, workspace, comment, documentation, R studio, RGUI, etc.); R data structures, R data types, I/O, file operation, etc.
- R in math as a calculator (scalar operation, integral, derivative, linear algebra, etc.); Operation and implementation on different R data types; Subsetting/Matching/Merging, etc
- Writing R functions, Control structure; Loops; -apply family functions; evaluate/substitute/quote/; Other widely used functions

Lecture 2. R in modeling and optimization

- R in linear model, generalized linear model, mixed model, survival model, etc;
- R in convex optimization, gradient descent, optim(), nls()

Lecture 3. R graphics

- Focus on basic graphs, graphical logic, how to modify graphical parameters
- lattice, ggplot2 (Hadley's ggplot2 cookbook)

Lecture 4. Functional programming

- The concept, "pryr" package, the building blocks, higher-order function, -apply/loop revisited, Reduce(), do/call, etc.

Lecture 5. R coding style and coding convention to increase efficiency

- Google R coding style, vectorize the code, -apply, release memory, etc.

Lecture 6. Debugging, exception handling

- try(), debug(), traceback(), stop(), etc.

Lecture 7. OOP field guide

- S3/S4 class, method, attribute, etc.

Lecture 8. Speed up R computation

- Rcpp, R call C++/C, R call java
- Parallel computing in R, GPU computing

Lecture 9. GUI in R

- R-shiny

Lecture 10. R documentation and package, Reproducible research

- Create R package, roxygen to write R documentation
- R markdown, R sweave, latex, literate programming
- Reproducible research

Lecture 11. Julia

- Introduction to Julia and comparison with R and matlab

Lecture 12. Sharing and version control

- Github and how to host R packages on Github.

Lecture 13. Real project

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(Revised: 9/22/2015)

REQUEST FOR APPROVAL OF NEW COURSES AND COURSE CHANGES

1. **General Instructions**:

   a. Faculty should submit this form and the associated syllabus following the Pitt Public Health Syllabus Guidelines and the Syllabus Checklist (on pages 4 and 5) **by e-mail** to Patricia Documet, Chair (pdocumet@pitt.edu) and Robin Leaf, EPCC Staff Liaison (ral9@pitt.edu). If you choose not to include all the information detailed on the Syllabus Guidelines in your course syllabus for distribution to students, please attach this information to the proposal.

   b. The initiating Department is asked to submit one hard copy of this completed form with the proper signatures, syllabus and other materials (if any) to Robin Leaf in Student Affairs **at least one week prior** to the EPCC meeting. If this target date is not met, the proposal will be deferred for consideration at the next meeting scheduled.

   c. You will be contacted by the EPCC Chair or the EPCC Staff Liaison to schedule a presentation and discussion of your program/course proposal with the Committee, if possible at the next scheduled EPCC meeting.

2. **Review based on the following (check all which apply):**

   ___ New course, not previously approved
   ___ Course title change
   ___ **Cross-listing only**
   (Specify academic unit & course number):

   X **Course modification (major)**
   ___ Special topics course content
   ___ Pitt Public Health Core Course
   ___ Practicum, internship, field placement

3. **Course designation:**

   Course Number **IDM 2002** Title **Molecular Virology** Credits **3**

4. **Cross-listing**:

   If you want to cross-list this course in any other Pitt Public Health department or any other school of the University, specify which department(s) and School(s) and provide brief justification.

   We are no longer cross listing with MSMVM 2410 since we will be teaching the course to coincide with our fundamental microbiology course (IDM 2001). We're also rolling IDM 2420 into IDM 2002 to create one 3 credit virology course.

5. **Course Instructors:**

(Indicate type of Pitt Public Health faculty appointment,* and percentage of total course time/effort anticipated. For any instructor who does not hold a Pitt Public Health faculty appointment, indicate her/his title and affiliation.)

a. Principal instructor:
David Rowe, PhD
Anticipated course time/effort: 50%

b. Co-instructors (if any):

Velpandi Ayyavoo
Jeremy Martinson
Moses Bility
Andrei Gambotto
Amy Hartman
Robbie Mailliard
Giovanna Rappocciolo
Paolo Piazza
Frank Jenkins
Ernesto Marques

6. **Statement of the course for *Course Inventory*.** Include purpose of course; summary of prerequisites, if any; general course content; and method of conducting course (e.g., lecture, laboratory, field work, etc.).

Prerequisite: IDM 2001

Purpose of the course:

The intent of this course is to provide a comprehensive coverage of the families of viruses that infect humans. The emphasis of the course is on extant and emerging virus diseases of greatest concern to public health. The instruction will provide an in depth coverage of the molecular virus structure as it relates to the viral life cycle including mode of replication and transmission, host range, antigenicity, treatment and vaccine control. The emphasis will be on recent developments and include analyses of seminal advances drawn from scientific publications. It is a required course for all IDM bioscience track MS and PhD students.

General Course Content:

Students will be introduced to the families of viruses that infect humans. They will acquire a basic understanding of the major structural classes of mammalian viruses, their mechanisms of replication and genetics. Students will be introduced to various modes of transmission within and between species, and the molecular nature of the barriers to cross species transmission. An understanding of specific examples of viruses that have crossed species barriers to cause disease in humans will be obtained. The use of detailed descriptions drawn directly from recent publications is intended to sharpen students' skills at reading, interpreting and critiquing scientific papers.

Method of Course: Lecture

Lectures and in class paper discussions

7. **Student enrollment criteria/restrictions:**

* The principal instructor for any Pitt Public Health course must have a primary, secondary or adjunct appointment in the school.

a. Indicate any maximum or minimum number of students and provide justification for this limitation.

N/A

b. If admission is by permission of instructor, state criteria to be applied.

N/A

c. Provide a brief description of any prerequisite skills or knowledge areas that are necessary for students entering this course, including any specific course prerequisites or equivalents.

Undergraduate training in microbiology and molecular biology is necessary. An introductory Immunology Course (eg: IDM 2003 or equivalent) is also required.

8. **Course schedule and allocation of hours:**

a. Number of course hours per session _1__ Sessions per week __3__ Weeks per academic term __12?____

b. Approximate allocation of class time (hours or %) among instructional activities:

Lectures __67%___ Seminars _____ Recitations _____ Field work _____ Laboratory _____
Other (specify): 33% in class discussion and analysis of scientific publications

c. Term(s) course will be offered: Fall ____ **Spring 2017** Summer Term _____ Summer Session _____

9. **Grading of student performance:**
Indicate the grading system to be used (A, B, C, etc.; H, S, U); provide statement justifying use of system other than letter grade.

Standard Scale =

90-100%	A+
80-89%	A
70-79%	B
60-69%	C
50-59%	D
<50	F

10. **On-line course delivery:**

Indicate the extent to which you will be using on-line instructional methods in teaching this course by checking all of the options below which apply:

_x__ I plan to use the course management aspects of CourseWeb/ Blackboard (or equivalent), e.g., grade book, announcements.

_x__ I plan to use the interactive features of CourseWeb/Blackboard (or equivalent), e.g., discussion board, etc.

___ I have designed the course for remote (off-site) learning with little/no classroom attendance required.

___ I do not plan to use on-line instruction methods for this course (briefly explain)

11. **Relevance of course to academic programs and curricula:**

a. Describe how this course contributes to learning objectives specified for the curriculum of one or more Pitt Public Health degree or certificate programs. Indicate whether course is required for any specified degree or certificate.

The intent of this course is to provide a comprehensive coverage of the families of viruses that infect humans. The emphasis of the course is on extant and emerging virus diseases of greatest concern to public health. The instruction will provide an in depth coverage of the molecular virus structure as it relates to the viral life cycle including mode of replication and transmission, host range, antigenicity, treatment and vaccine control. It is a required course for all IDM bioscience track MS and PhD students.

b. Describe how this course addresses public health issues involving diversity (gender, race, ethnicity, culture, disability, or family status).

This course does not specifically address these issues as isolated topics. Cultural and economic issues are factors that weigh differently in the emergence, transmission and persistence of various viral infectious diseases discussed in the course. (eg: Influenza, SARS, MERS, Ebola, and AIDS) The contribution of these factors is highlighted when the Class of virus that causes each of these diseases is examined.

12. **Signature and date of principal faculty member (include department/program) making request:**

Name/Title: Dan T Lu · Assoc Prof Date: 9/29/16

13. **Signature and date of endorsement of department chairperson:**

Name/Title: Date: 29 Sept 16

14. (For cross-listing only)
Signature and date of endorsement of department chairperson:

Name/Title: _____ Date: _____

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(11/19/2013)

SYLLABUS CHECKLIST FOR NEW AND REVISED COURSES

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Objective to assist faculty to ensure syllabus contains the required and necessary elements to provide students with clear expectations of the course.

NOTE: * indicates a required element of the syllabus. If N/A is checked or this element is not included complete the information detailed on page two for all instances.

Syllabus Area	Recommended Detail * Required	Included in Your Syllabus?					
Heading	Course Number*	Yes	☒	No	☐	N/A	☐
	Course Title*	Yes	☒	No	☐	N/A	☐
	Course Meeting Time/Day of Week*	Yes	☒	No	☐	N/A	☐
	Classroom Location*	Yes	☒	No	☐	N/A	☐
Faculty Information	Office Location*	Yes	☒	No	☐	N/A	☐
	Office Hours*	Yes	☒	No	☐	N/A	☐
	Phone Number*	Yes	☒	No	☐	N/A	☐
	Email Address*	Yes	☒	No	☐	N/A	☐
	Teaching Philosophy	Yes	☐	No	☐	N/A	☐
	Teaching Assistant Contact	Yes	☐	No	☐	N/A	☐
Student Expectations in Classroom	Behavior/ Ground Rules (cell phones off, laptops off, etc.)	Yes	☐	No	☐	N/A	☐
	Recording of Lectures	Yes	☐	No	☐	N/A	☐
Course Summary	Course Description*	Yes	☒	No	☐	N/A	☐
	Learning Objectives*	Yes	☒	No	☐	N/A	☐
Materials	Required Textbooks/ Articles/Readings	Yes	☐	No	☐	N/A	☐
	Required Software	Yes	☐	No	☐	N/A	☐
	Required Equipment (including use of CourseWeb/Blackboard)	Yes	☐	No	☐	N/A	☐
	Recommended Material	Yes	☒	No	☐	N/A	☐
	Availability of Software for Purchase and/or Use	Yes	☐	No	☐	N/A	☐

Evaluation	Grading Scale*	Yes	☒	No	☐	N/A	☐
	Grading Criteria/Rubric	Yes	☐	No	☐	N/A	☐
	Late Assignment Policy	Yes	☐	No	☐	N/A	☐
Accommodation of Students with Disabilities	Pitt Public Health Statement*	Yes	☒	No	☐	N/A	☐
Academic Integrity Policy	Pitt Public Health Statement*	Yes	☒	No	☐	N/A	☐
Schedule	Topics by Session*	Yes	☒	No	☐	N/A	☐
	Reading and Written Assignments by Session*	Yes	☒	No	☐	N/A	☐
	Learning Objectives by Session	Yes	☐	No	☐	N/A	☐
	Test Dates	Yes	☐	No	☐	N/A	☐
Additional Resources	Health Sciences Library Liaison Contact Information	Yes	☐	No	☐	N/A	☐
	Writing Center Contact (if course is writing intensive)	Yes	☐	No	☐	N/A	☐

Required Information Not Included

List the Required Detail Not Included	**Reason for Not Including**

2017 Syllabus

Graduate School of Public Health
Department of Infectious Diseases and Microbiology
IDM 2002 Molecular Virology

Lecture Times

Tuesday	2:00 PM - 2:55 PM	A719 Crabtree
Wednesday	2:00 PM – 2:55 PM	A522 Crabtree
Thursday	2:00 PM – 2:55 PM	A522 Crabtree

Lecturers:

Dr. David Rowe	2131 Parran Hall	rowe1@pitt.edu	**Course Coordinator**
Dr. Velpandi Ayyavoo	404 Parran Hall	velpandi@pitt.edu	
Dr. Jeremy Martinson	403 Parran Hall	jmartins@pitt.edu	
Dr. Moses Bility	603 Parran Hall	mtbility@pitt.edu	
Dr. Andrei Gambotto	BSTWR W1148	gambottoa@pitt.edu	
Dr. Amy Hartman	BST3 8038	hartman2@pitt.edu	
Dr. Robbie Mailliard	404 Parran Hall	rbm19@pitt.edu	
Dr. Giovanna Rappocciolo	604 Parran Hall	goivanna@pitt.edu	
Dr. Paolo Piazzo	604 Parran Hall	paolo@pitt.edu	
Dr. Frank Jenkins	HLMNC G17	jenkinsfj@pitt.edu	
Dr Ernesto Marques	BST3 9014	marques@pitt.edu	

Office Hours: 10AM -6:00PM Monday - Friday

Course Description:

The intent of this course is to provide a comprehensive coverage of the families of viruses that infect humans. The emphasis of the course is on extant and emerging virus diseases of greatest concern to public health. The instruction will provide an in depth coverage of the molecular virus structure as it relates to the viral life cycle including mode of replication and transmission, host range, antigenicity, treatment and vaccine control. The emphasis will be on recent developments and include analyses of seminal advances drawn from scientific publications. It is a required course for all IDM bioscience track MS and PhD students.

Teaching/Learning Objectives

Students will be introduced to the families of viruses that infect humans. They will acquire a basic understanding of the major structural classes of mammalian viruses, their mechanisms of replication and genetics. Students will be introduced to various modes of transmission within and between species, and the molecular nature of the barriers to cross species transmission. An understanding of specific examples of viruses that have crossed species barriers to cause disease in humans will be obtained. The use of detailed descriptions drawn directly from recent publications is intended to sharpen students' skills at reading, interpreting and critiquing scientific papers.

CourseWeb

All materials relevant to the course will be made available on CourseWeb.

Grading Scale
Letter grades are awarded for this course based on the following scale:

90-100%	A+
80-89%	A
70-79%	B
60-69%	C
50-59%	D
<50%	F

Student Performance Evaluation (Factors and Weights)

Exams:

Midterm 1: In class, essay type Qs, only Session I material	= 30%
Midterm 2: In class, essay type Qs, only Session II material	= 30%
Final Exam: In class essay type Qs, All material covered in course	= 40%

Participation

Responses to Socratic questioning Preparation pre-class	~ 5%

Accommodation for Students with Disabilities

If you have any disability for which you may require accommodation, you are encouraged to notify both your instructor and the Office of Disability Resources and Services, 140 William Pitt Union (Voice or TTD 412-648-7890) as early as possible in the term.

Academic Integrity
All students are expected to adhere to the school's standards of academic honesty. Any work submitted by a student for evaluation must represent his/her own intellectual contribution and efforts. The Graduate School of Public Health's policy on academic integrity, approved by EPCC on 10/14/08, which is based on the University policy, is available online in the Pitt Public Health Academic Handbook (www.publichealth.pitt.edu/home/academics/academic-requirements). The policy includes obligations for faculty and students, procedures for adjudicating violations, and other critical information. Please take the time to read this policy.

Students committing acts of academic dishonesty, including plagiarism, unauthorized collaboration on assignments, cheating on exams, misrepresentation of data, and facilitating dishonesty by others, will receive sanctions appropriate to the violation(s) committed. Sanctions include, but are not limited to, reduction of a grade for an assignment or a course, failure of a course, and dismissal from the school.

All student violations of academic integrity must be documented by the appropriate faculty member; this documentation will be kept in a confidential student file maintained by the Office of Student Affairs. If a sanction for a violation is agreed upon by the student and instructor, the record of this agreement will be expunged from the student file upon the student's graduation. If the case is referred to the Pitt Public Health Academic Integrity Hearing Board, a record will remain in the student's permanent file.

All students are expected to adhere to the standards of academic honesty. Any work submitted by a student must represent his/her own intellectual contribution and efforts. Any student found to be engaged in cheating, plagiarism, or any other acts of academic dishonesty will be subject to a failing grade in the assignment and/or the course and to further disciplinary action.

Diversity Statement
In this course, students, faculty and guests represent a diversity of individual perspectives, backgrounds, and experiences, which enriches our classes. We urge all to be respectful of others. While intellectual disagreement may be constructive, no harsh statements, or demeaning or discriminatory behavior will be permitted. If you feel uncomfortable, please feel free to approach the course director to discuss the situation.

Copyright Notice
Course material may be protected by copyright. United States copyright law, 14 USC section 101, et sec., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See Library of Congress Copyright Office and the University Copyright Policy.

Statement on Classroom Recording
To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

CLASS SCHEDULE

Session I — Basics of Virus Structure

Jan	3	Tu	Basics of Virus Structure I *- physical constraints on capsid assemblies* *- polyhedral structures eg: picornaviruses(ssR+), parvoviruses(ssD-)*	Rowe
	4	W	Basics of Virus Structure II *- polyhedral enveloped structures eg: alphaviruses (ssR+)*	Rowe
	5	Th	*Virus Structure Paper Discussion* *- 'Structure of the Thermally Stable Zika virus' Nature 533 :425 (2016)*	Rowe
	10	Tu	Basics of Virus Structure III *- helical assemblages eg : rhabdoviruses (ssR-)*	Rowe
	11	W	Basics of Virus Structure IV *- segmented genomes eg: myxoviruses (ssR-seg)* *- segmented genomes eg: reoviruses (dsR)*	Rowe
	12	Th	*Virus Structure Paper Discussion* *- 'Conserved and host-specific features of influenza virion architecture' Nature Communications 5:1 (2014)*	Rowe
	17	Tu	Basics of Virus Structure V *- herpesviruses(dsD) eg: gammaherpesviruses (dsD)* *- virion organization and genome structure* *- regulation of expression and replication*	Rappocciolo
	18	W	Basics of Virus Structure VI *- adenoviruses(dsD)eg: mastadenoviruses (dsD)* *- genome structure, expression and replication* *- pathogenesis and oncogenicity*	Gambotto
	19	Th	*Virus Structure Paper Discussion*	Rappocciolo

			- *Herpesviruses or Adenoviruses*	
	24	Tu	Basics of Virus Structure VII - *retroviruses (ssR+)* - *virion organization and genome structure*	Mailliard
	25	W	Basics of Virus Structure VIII	
	26	Th	*Virus Structure Paper Discussion*	
	31	Tu	Basics of Virus Structure IX	
Feb	1	W	Basics of Virus Structure X - *complex structures eg: poxviruses (dsD)* - *virion organization and genome structure* - *regulation of expression and replication*	Rowe
	2	Th	Midterm 1	

Session II Zoonoses and Species Barriers

	7	Tu	Zoonoses and Species Barriers - Influenza I - *history* - *genetics of antigenicity*	Rowe
	8	W	Zoonoses and Species Barriers - Influenza II - *genetics of antigenicity* - *species specificity*	Rowe
	9	Th	*Influenza Paper Discussion* - *'Mammalian Adaptive Mutations of the PA Protein of Highly Pathogenic Avian H5N1 Influenza Virus' J. Virol 89:4117 (2015)*	Rowe
	14	Tu	Zoonoses and Species Barriers - Influenza III - *GOF studies*	Rowe
	15	W	Zoonoses and Species Barriers - Influenza IV - *vaccinology*	Rowe
	16	Th	*Influenza Vaccination Paper Discussion* - *'Antibody Landscapes after Influenza Virus Infection or Vaccination' Science 346: 996 (2014)*	Rowe
	21	Tu	Zoonoses and Species Barriers - SARS V - *corona virus structure, history* - *species cross over in emerging infectious diseases*	Rowe
	22	W	Zoonoses and Species Barriers – MERSVI	Rowe
	23	Th	*MERS Paper Discussion* - *'A Conformation-Dependent Neutralizing Monoclonal Antibody*	Rowe

			Specifically Targeting Receptor-Binding Domain in Middle East Respiratory Syndrome Coronavirus Spike Protein' J, Virol 88: 7045 (2014)	
	28	Tu	Zoonoses and Species Barriers – Bunyaviruses VII *- History, genetics, and zoonotic transmission*	Hartman
Mar	1	W	Zoonoses and Species Barriers – Arenaviruses VIII *- History, genetics, and zoonotic transmission*	Hartman

Session III — Emerging Virus Infections

Mar	2	Th	Emerging Virus Infections - Filoviruses I *- filoviruses (ssR-) Virion Structure and Replication*	Hartman
	7	Tu	Emerging Virus Infections - Filoviruses II *- Genetics*	Hartman
	8	W	Spring Break	
	9	Th	Spring Break	
	14	Tu	*Ebola Paper Discussion* *- TBA*	Hartman
	15	W	Emerging Virus Infections - Flaviviruses III *- West Nile and Dengue*	Marques
	16	Th	Emerging Virus Infections - Flaviviruses IV *- Zika*	Marques
	21	Th	*Paper Discussion* *- TBA*	
	22	W	Midterm 2	

Session IV — Chronic Persistent Infections

	23	Th	Chronic Persistent Infections I *- Anelloviruses*	Rowe
	28	Tu	*Persistent Infection Paper Discussion* *- 'Temporal Response of the Human Virome to Immunosuppression and Antiviral Therapy' Cell 155: 1178 (2013)*	Rowe
	29	W	Chronic Persistent Infections II *- retroviruses*	Ayyavoo
	30	Th	Chronic Persistent Infections III *- retroviruses*	Ayyavoo
Apr	4	Tu	*Persistent Infection Paper Discussion* *- 'TBA'*	Ayyavoo
	5	W	Chronic Persistent Infections IV	Ayyavoo

		- retroviruses	
6	Th	Chronic Persistent Infections V *- Hepatitis C*	Bility
11	Tu	*Persistent Infection Paper Discussion* *- 'TBA'*	Bility
12	W	Chronic Persistent Infections VI *- Human Endogenous Retroviruses*	Piazzo
13	Th	*Persistent Infection Paper Discussion*	Piazzo

Session V The Virome

18	Tu	The Human Virome I	Martinson
19	W	The Human Virome II	Martinson
20	Th	*Paper Discussion*	Martinson
25	Tu	Vibriophages and Cholera III	Rowe
26	Tu		
27	Th	FINAL EXAM	

Spring 2016 Courses	
Current Course Description	**Proposed Course Description**
EPIDEM 2012 – Neuroepidemiology	
This course addresses the application of methods of epidemiology to the problems of clinical neurology. It focuses on risk factors, natural history, frequency, outcomes, and effective treatment strategies. Emphasis is placed on three aspects: 1. Descriptive epidemiology methods; 2. Etiologic factors that influence the onset, progression and response to treatment of neurological diseases across the lifespan; 3. Cutting-edge multimodal methodologies to assess abnormalities of the central nervous system (CNS). Topics will include stroke and vascular diseases, Parkinson's disease, Alzheimer's disease, multiple sclerosis, amyotrophic lateral sclerosis, developmental neurological disorders (e.g. ADHD, autism), myasthenia gravis, traumatic brain injury, tumors, and infectious diseases of the central nervous system. Geographic variations will be considered. The course will involve both lectures and small discussion groups. It is elective for epidemiology students and other GSPH students but required for specialization in neuroepidemiology. This course will prepare students to design neuroepidemiological studies by providing background on epidemiological approaches, clinical definitions, and cutting-edge multimodal methodologies to assess CNS abnormalities. Additionally, this course will provide guided and critical knowledge of existing neuroepidemiological studies.	This course focuses on the application of the methods of epidemiology to understand the pathogenesis and etiology of conditions affecting the central nervous system. This course covers epidemiological approaches, etiological perspectives and methodologies to assess disorders of the central nervous system (CNS), with a special emphasis of neurocognitive assessment and neuroimaging methods. This course also provides guided and critical knowledge of existing neuroepidemiological studies through the research practicum. In addition to students pursuing Doctoral and Master level degrees in Epidemiology, this course is designed to reach trainees in a variety of fields, including medicine, neurology, psychiatry, physical medicine and rehabilitation, neuroscience, psychology and computer science. Emphasis is placed on: a. descriptive epidemiology methods; b. factors that influence vulnerability to onset, progression and response to treatment of neurological diseases, including geographic variations; c. methodologies to assess disorders of the central nervous system (CNS), including behavioral neuropsychological assessments and cutting-edge multimodal neuroimaging. Separate sessions will be available upon request for students less familiar with epidemiology methods (descriptive, analytic, experimental).
EPIDEM 2141 – Lifestyle Intervention: Theory	
TransLating the findings of clinical trials in disease prevention to community settings is increasingly important in public health. It is thus imperative that individuals being trained in public health understand the basics of chronic disease prevention and specifically that of behavioral lifestyle intervention efforts. The purpose of this course is to provide the conceptual foundation needed for such public health initiatives. By attending this course, students will receive behavioral lifestyle intervention training based upon a modified version of the diabetes prevention program intervention protocol, called the group lifestyle balance (GLB) program. The background and rationale for behavioral lifestyle intervention will be covered in this course, as well as the relationship of lifestyle behaviors to chronic disease, with a focus on diabetes and cardiovascular disease. The course will be completed partially online and students will be expected to attend a two-day in-person training workshop in Oakland. The GLB program and materials will be reviewed in their entirety, with an emphasis on integrating the lifestyle intervention program within diverse populations.	Translating the findings of clinical trials of lifestyle intervention for disease prevention into community settings is increasingly important. This course will provide the conceptual foundation needed for such public health initiatives and serves as a key component of the Prevention, Lifestyle Intervention, and Physical Activity Area of Emphasis within the Department of Epidemiology. The background and rationale for behavioral lifestyle intervention will be covered in this course, as well as the relationship of lifestyle behaviors to chronic disease, with a focus on diabetes and cardiovascular disease. By attending this lecture-style course, students will receive behavioral lifestyle intervention training based upon a modified version of the Diabetes Prevention Program intervention protocol, called the Group Lifestyle Balance (DPP-GLB) program, which was adapted for use in the community setting. Upon successful completion of this class, each student will also receive a Certificate confirming that he/she was officially trained as a coach for the DPP-GLB intervention program.

EPIDEM 2150 – Epidemiology Cardiovascular Diseases	
This course will review current concepts of the etiology of cardiovascular diseases, including heart disease, stroke, and peripheral vascular diseases. The emphasis is on the interrelationship between epidemiology and current concepts of pathophysiology. Critiquing of articles will be included in most sessions.	In this course, we hope not only to guide you to a better understanding of cardiovascular disease and its epidemiology, but also to help develop your critical and presentation skills. We will do this by “critiquing” an article most sessions and having a twenty-minute student presentation based on recent statements of the American Heart Association.
EPIDEM 2151 – Physical Activity Epidemiology	
The importance of physical activity as a key, modifiable risk factor for many chronic diseases culminated in the release of physical activity and health: a report of the surgeon general (1996). This course will provide an up-to-date overview of the area of physical activity epidemiology, from the evidence of the relationships between physical activity and/or sedentary behavior and various chronic diseases, to methodological issues pertaining to the assessment of physical activity and/or sedentary behavior, to lifestyle efforts that includes physical activity in population studies, all of which will have a special emphasis on minority groups.	Physical inactivity is a major risk factor for many chronic diseases as identified in the Surgeon General’s Report. This course will provide an up-to-date overview of the area of physical activity epidemiology, from the evidence of the relationships between physical activity and/or sedentary behavior and various chronic diseases, to methodological issues pertaining to the assessment of physical activity and/or sedentary behavior, to lifestyle efforts that includes physical activity in population studies, all of which will have a special emphasis on minority groups.
EPIDEM 2152 – Student Workshop in Cardiovascular Disease Epidemiology	
This course is designed to be a supplement to the standard epidemiology coursework. It is a ""hands on"" workshop that will provide the opportunity for students to practice many of the concepts that they learn in class in the context of CVD epidemiology. It will also cover some areas which are not covered by the current curriculum including an introduction to subclinical CVD, professional development, reliability analyses and formal presentations of analysis results.	This course is designed to be a supplement to the standard epidemiology coursework. It is a “hands on” workshop that will provide the opportunity for students to practice many of the concepts that they learn in class in the context of CVD epidemiology. It will also cover some areas which are not covered by the current curriculum, including an introduction to subclinical CVD, professional development, reliability analyses, and formal presentations of analysis results.
EPIDEM 2161 – Methods Infectious Diseases Epidemiology	
Covers important topics in infectious diseases epidemiology, including public health surveillance, emerging infectious diseases, the role of infectious diseases in the etiology of chronic diseases, and epidemiologic study designs and laboratory methods used in infectious diseases research.	Covers important topics in infectious diseases epidemiology, including public health surveillance, emerging infectious diseases, the role of infectious diseases in the etiology of chronic diseases, and epidemiologic study designs and laboratory methods used in infectious diseases epidemiology. Course includes lectures, readings, and mid-term (take home) and final examinations.
EPIDEM 2166 – Global Control of AIDS/HIV and Tuberculosis	
This course will deal with the epidemiology of infection with human immunodeficiency virus (HIV) and tuberculosis (TB). Current knowledge of the natural history, biology, virology or microbiology, epidmeiology and clinical aspects of aids as well as treatment and vaccine efforts against HIV and TB will be reviewed. Descriptive, analytic and experimental epidemiologic studies will be critically reviewed to provide a synthesis of our current understanding of the pathogenesis of these infectious diseases. An understanding of basic science concepts and biology will be assumed. Basic	This course will deal with the epidemiology of infection with human immunodeficiency virus (HIV) and Tuberculosis (TB). Current knowledge of the natural history, biology, virology or microbiology, epidemiology and clinical aspects of AIDS as well as treatment and vaccine efforts against HIV and TB will be reviewed. Descriptive, analytic and experimental epidemiologic studies will be critically reviewed to provide a synthesis of our current understanding of the pathogenesis of these infectious diseases. Prerequisite: Introductory course of Epidemiology. An understanding of basic science

epidemiological principles and other quantitative skills will prove useful in understanding the distribution of the disease and in interpreting research findings.	concepts and biology will be assumed. Basic epidemiological principles and other quantitative skills will prove useful in understanding the distribution of the disease and in interpreting research findings. There are no required textbook, but selected readings are suggested for the mastery of the course.
EPIDEM 2171 – Cancer Epidemiology	
The course reviews basic cancer biology, reviews classic descriptive cancer epidemiology, considers the role for modern biomedical techniques in studies of cancer etiology, and reviews the active hypotheses regarding the etiology of common and uncommon human cancers. Specific topics include cancer biomarkers and intermediate endpoints, tobacco and alcohol associated cancer, viral associated cancer, endocrine related cancer, and nutrition related cancer.	The course reviews basic cancer biology, reviews classic descriptive cancer epidemiology, considers the role for modern biomedical techniques in studies of cancer etiology, and reviews the active hypotheses regarding the etiology of common and uncommon human cancers. Specific topics include biomarkers and intermediate endpoints, tobacco and alcohol associated cancer, viral associated cancer, endocrine related cancer, and nutrition related cancer.
***EPIDEM 2180 – Epidemiological Methods* I**	
This course will focus on methods used in epidemiological research. Topics to be covered include study design, selection of study subjects, data collection and management, identification of bias, confounding and interaction, measures of prevalence, cumulative incidence and person-time, life-table and Kapan-Meier survival curves, log-rank tests, stratification and adjustment.	This course is an introduction to the epidemiology methods used in research. The course is designed for students in the Graduate School of Public Health with a modest statistical and data management background. Students will use SAS, a statistical software package, to analyze data sets. This course will focus on the appropriate application of various study designs and statistical methods for answering research questions, as well as the proper interpretation of results derived from these methods. Students will be expected to participate in class discussions that extend and apply the topics covered in lectures and reading to epidemiology research articles and epidemiology in practice.
EPIDEM 2220 – Applied Spatial/Community Epidemiology	
The purpose of this course is to provide a conceptual understanding of spatial statistical tools as applied to public health. This course will include "hands-on" training in software and tools for analysis of spatio-temporal variations in health and disease with respect to demographic, environmental, behavioral, socioeconomic, genetic, and infectious risk factors.	The purpose of this course is to provide a conceptual understanding of the field of environmental epidemiology and to provide the spatial statistical tools for geospatial analysis. Topics will include: study design and approaches in environmental epidemiology investigations, statistical issues in the analysis and interpretation of such studies, and “Hands on” training in software and tools for analysis of spatio-temporal variations in health and disease with respect to demographic, environmental, behavioral, socioeconomic, genetic, and infectious risk factors. The course will provide an overview of health effects of environmental exposures. This includes the investigation of cancer and other disease clusters, health effects of water and air pollution, radiation threats and exposures and proximity to toxic waste sites. Basic tutorials in Arc GIS (10.3) and Geoda freeware will be provided.
EPIDEM 2230 – Advanced Topics in Epidemiological Methods	
Course covers methods for obtaining and presenting data from existing sources including: U.S. Census and surveys by the national center for health statistics. The laboratory section will include computer methods for abstracting, analyzing, and presenting data.	This course covers methods for obtaining and presenting data from existing sources. Laboratory sections will cover data management and statistical programming in the context of large public-use datasets and clinical databases. Students will be introduced to topics such as

Microcomputer graphics and statistical packages will also be utilized.	analysis of imaging data, longitudinal clinical registries, and multi-level modeling. Students will work in groups on a secondary analysis research project that will be presented in seminar format.
EPIDEM 2400 – Psychosocial Factors in Disease	
This course includes 2 components. The first focuses on individual-level psychosocial and behavioral factors, such as socioeconomic status, stress, social support, and depression, that influence the development and course of physical diseases. The second part is on social epidemiology and focuses on community-level factors. Social epidemiology studies the social distribution and social determinants of health and the specific features and pathways by which societal conditions such as the social structure, physical environment, public policy and cultural norms affect health.	This course focuses on psychosocial and behavioral factors that influence the development and course of physical disease. Some of these factors can be modified, so identification can lead to improved health. This course is directed towards students who want to learn about the most common psychosocial factors implicated in disease, how they are measured, psychometric issues, and how to incorporate them into studies of disease and physical health. Students will also learn how to analyze and evaluate the strengths and limitations of studies that include psychosocial factors.
EPIDEM 2600 – Introduction to Molecular Epidemiology	
Reviews basic genetic principles and molecular biology techniques. Teaches epidemiologic methods employed in the investigation of the genetic susceptibility to chronic disease, as well as molecular assessments of infectious agents and biomarkers, and their incorporation into epidemiologic research.	To provide students with an introduction to the key concepts in genetics and molecular biology, and the diverse ways they are used to solve practical problems in the epidemiology of disease and risk identification. This course will deliver the working knowledge of genetics and molecular biology necessary for critical assessment of molecular epidemiological studies. It will provide suitable preparation for more advanced and specialized study in molecular epidemiology. The student will develop familiarity with the ways molecular epidemiology is used to determine susceptibility to disease and response to interventions. The main topics covered are: genetic susceptibility, the use of biomarkers, and molecular association studies.
EPIDEM 2640 – Injury Prevention and Control	
The purpose of this introductory level course is to provide an overview of the basic principles and practice underlying injury and violence prevention and control. The course is based largely on lectures, supplemented with case studies and problem solving exercises to enhance understanding of approaches to injury and violence prevention. Course content will reinforce skills in descriptive epidemiology and discuss examples of interventions involving behavior change, environmental change, policy, and program evaluation.	Injuries and violence are leading causes of morbidity and mortality in the United States and globally. This course is directed towards individuals with an interest in learning more about this burden and the current approaches being taken to reduce it. It provides an example of how the disciplines of public health can be used to study, understand, and address a significant public health issue. The course will provide an overview of the basic principles and practice underlying injury prevention and control. Lectures will identify the burden underlying major categories of unintentional and intentional injuries and review the multi-disciplinary approaches being used to reduce injuries and violence, in general, and with respect to specific injury and violence issues. In class discussion and problems will be utilized to enhance understanding of approaches to prevention.
EPIDEM 2670 – Injury Epidemiology	
Identifies existing data sources and surveillance systems for injuries and their uses and limitations. Students will acquire an introductory understanding of the descriptive factors behind injuries from motor vehicle accidents, violence, sports, and occupations. They will also develop	This course is designed to provide an introduction to and understanding of the epidemiology of injuries. The class will review the fundamentals underlying injury data and the methods used in injury research studies. Research in major injury topics; motor vehicle crash, violence, sports

skills in working with colleagues on identifying data and describing its importance.	injury, and other topics will be discussed in depth. Through instruction and practice with data, participants will become familiar with the importance of injury as a public health problem, the strengths and weaknesses of injury data sources and injury surveillance systems, and injury research methods.
EPIDEM 2710 – Epidemiology of Women's Health	
This course presents an introduction to studies of the influences on health and disease among women. It discusses epidemiologic approaches to understanding the basic etiology and primary prevention of diseases unique to or more common among women. Course includes lectures, seminars, and discussion.	This course presents an introduction to the influences of health and disease among women. It reviews epidemiologic approaches to understanding the basic etiology and primary prevention of diseases unique to or more common among women. There is a strong focus on life course approaches to understanding health and disease, including methods, study design and analytics appropriate for studies across the lifespan, from in utero to old age. Course includes lectures, seminars, and discussion.
EPIDEM 2720 – Reproductive Epidemiology	
This course first presents a solid background of female and male anatomy and physiology, as well as fetal development. The course subsequently covers critical approaches and methodologic challenges unique to reproductive epidemiology. Specific topics include contraceptives, infertility, ectopic pregnancy, spontaneous abortion, gestational weight gain, preeclampsia, preterm birth, low birth weight, intrauterine growth restriction, infant mortality, and breastfeeding. Case studies of selected exposures and reproductive outcomes are discussed.	This course first presents a solid background of female and male anatomy and physiology, as well as fetal development. The course subsequently covers critical approaches and methodologic challenges unique to reproductive epidemiology. Specific topics include contraceptives, infertility, ectopic pregnancy, spontaneous abortion, gestational weight gain, preeclampsia, preterm birth, low birth weight, intrauterine growth restriction, infant mortality, and breastfeeding. Case studies of selected exposures and reproductive outcomes are discussed.
EPIDEM 2850 – Introduction to Pharmacoepidemiology	
This course is an introduction to the field of pharmacoepidemiology which uses epidemiologic methods to examine the benefits or risks of medications in the population. In addition to formal lectures, students will be given the opportunity to examine and critique the literature in this area.	The purpose of this course is to provide an introduction to the field of pharmacoepidemiology, which uses epidemiologic methods to examine the benefits or risk of medications in the population. This course will: explain what pharmacoepidemiology is and what types of study designs are used within this methodology, discuss the roles that pharmacoepidemiology studies have regarding drug use and health outcomes; describe the threats to validity that are possible in pharmacoepidemiologic studies and the variety of solutions available to avert or control for these threats. This information will prepare students to both interpret and critique, in writing and through presentations, studies from the pharmacoepidemiology literature.
EPIDEM 2900 – Advanced Epidemiology of Aging	
This is an advanced course targeted toward epidemiology Ph.D. students. The purpose of this course is to understand in depth the current epidemiologic research findings regarding common health conditions and geriatric syndromes in the aging population. The course will focus on the common age-related processes and chronic health conditions that contribute to disability and frailty and on enhancing successful aging and	The workshops are designed as practical professional skill development to supplement to the additional coursework for the Epidemiology of Aging trainees and students. The workshop will include sessions on: presentations by the students from their research, journal article reviews, longitudinal analyses techniques, and professional skills sessions. The presentation sessions provide an opportunity for students to present and refine

preventing disability. Advanced research methods will be reviewed as part of each class. The course project will involve a data analysis to address an original research question based on preliminary work in the epidemiology of aging methods course (EPIDEM 2981). Data from one of the faculty's research studies will be made available for the project. Students will prepare the findings as 1) a research abstract and 2) a formal oral presentation and 3) a research manuscript.	their interim research and data analyses by obtaining feedback from peers, faculty and mentors on their work in progress. Journal article review sessions will provide an opportunity for students to identify and share current articles relevant to the epidemiology of aging and develop proficiency in the critical review of scientific literature. Emphasis will be placed on understanding emerging and novel methods in the field, particularly longitudinal statistical analyses techniques (e.g. handling missing data longitudinally; interpreting changes in slopes over time; joint modeling). A faculty member will help student leaders select articles (distributed before the meeting) and will work with students to encourage questions and discussion among the group. Professional skill sessions will vary by semester and cover topics such as post-doctoral career development, grant and professional medical writing, and longitudinal data analysis. Epidemiology of Aging trainees are expected to attend for the duration of their training and register for a minimum of two terms.
Summer 2016 Courses	
EPIDEM 2004 – Pathophysiology Across the Lifespan	
This course is designed to provide the student with a comprehensive theoretical foundation of the phenomena that produce alterations in human physiologic function across the lifespan. Information gained in this course will prepare the student for subsequent courses related to the diagnosis and management of disease processes associated with pathophysiologic dysfunction alterations.	This course is designed to provide the student with a comprehensive theoretical foundation of the phenomena that produce alterations in human physiologic function in diverse populations across the life span. Information gained in this course will prepare the student for subsequent courses related to the diagnosis and management of disease processes associated with pathophysiologic dysfunction/alterations in people of various ethnic/cultural groups across the life span.
EPIDEM 2110 – Principles of Epidemiology	
Reviews the basic concepts of epidemiology including community diagnosis, analytical techniques and evaluation of preventive methods. Examples of both acute and chronic diseases will be covered. Course includes lectures, readings, homework assignments, and several multiple choice examinations. Courseweb is utilized.	Epidemiology is a scientific discipline which seeks to identify and describe patterns of disease occurrence, identify determinants of disease, and evaluate disease prevention and health care treatment efforts. With its focus of study in human populations, epidemiology is directly linked with public health research, policy, and practice. This course provides an introduction to the fundamental definitions, terminology, concepts, methods, and critical thinking used in epidemiology. The material presented in this course is designed to lay the foundation for future study and practice in public health activities.
EPIDEM 2183 – Reading, Analyzing and Interpreting Public Health and Medical Literature	
This course provides the opportunity to analyze, interpret and critique original research articles. Assignments consist of oral and written reviews of recently published papers. A literature review paper on a topic chosen by the student is also required. Lecture topics include	This course provides the opportunity to analyze, interpret and critique original research articles. Assignments consist of oral and written reviews of recently published papers. A literature review paper on a topic chosen by the student is also required. Lecture topics include assessing

assessing study validity, subject selection, bias, confounding, laboratory methods, results presentation, quality control, statistical analyses, library searches, and bibliographic data base development.	study validity, subject selection, bias, confounding, laboratory methods, results presentation, quality control, statistical analyses, library searches, and bibliographic data base development.
EPIDEM 2920 – Grant Writing	
Students will develop a grant proposal on a research topic of their choice. The proposal will be written in the format of the national institutes of health (NIH) national research service award (NRSA) individual predoctoral fellowship (parent f31) grant application. The application will include specific aims and a research plan that includes significance, innovation, and approach. The proposal will also include a research training plan as required by the NIH. Students will also participate in a mock study section (grant review). Students are encouraged to use this opportunity to develop an application for submission to the NIH for support of their dissertation work.	During this course, students will develop a grant proposal on a research topic of their choice. The proposal will be written in the format of the National Institutes of Health (NIH) National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31) grant application. The application will include specific aims and a research plan that includes significance, innovation, and approach. The proposal will also include a research training plan as required by the NIH. Students will also participate in a mock study section (grant review). Students are encouraged to use this opportunity to develop an application for submission to the NIH for support of their dissertation work.
EPIDEM 2980 – Biology & Physiology of Aging	
Course objective is to learn current concepts and theories of the biology and physiology of normal human aging, contrasted with disease and disability. Complements epidem 2900, advanced epidemiology of aging.	This course introduces students to the aging process as a foundation for research in the epidemiology of aging. Some topics for the course will include: Overview of aging physiology, molecular and biological processes of aging, model systems of aging and study designs that are currently relevant to human population research.
Fall 2015 Courses	
EPIDEM 2004 – Pathophysiology Across the Lifespan	
This course is designed to provide the student with a comprehensive theoretical foundation of the phenomena that produce alterations in human physiologic function across the lifespan. Information gained in this course will prepare the student for subsequent courses related to the diagnosis and management of disease processes associated with pathophysiologic dysfunction alterations.	This course is designed to provide the student with a comprehensive theoretical foundation of the phenomena that produce alterations in human physiologic function in diverse populations across the life span. Information gained in this course will prepare the student for subsequent courses related to the diagnosis and management of disease processes associated with pathophysiologic dysfunction/alterations in people of various ethnic/cultural groups across the life span.
EPIDEM 2017 – Population Neuroscience Seminar	
This seminar focuses on the methods and current literature in population neuroscience. Population neuroscience draws from multiple fields, including epidemiology, neuroimaging, and cognitive psychology, to understand the intrinsic (e.g. genetic) and extrinsic (e.g. environmental) factors that contribute to brain structure and function in various populations (healthy, aging, and diseased)	This seminar focuses on the methods and current literature in population neuroscience. Population neuroscience draws from multiple fields, including epidemiology, neuroimaging, and cognitive psychology, to understand the intrinsic (e.g. genetic) and extrinsic (e.g. environmental) factors that contribute to brain structure and function in various populations (healthy, aging, and diseased).
EPIDEM 2110 – Principles of Epidemiology	
Reviews the basic concepts of epidemiology including community diagnosis, analytical techniques and evaluation of preventive methods. Examples of both	Epidemiology is a scientific discipline which seeks to identify and describe patterns of disease occurrence, identify determinants of disease, and evaluate disease

acute and chronic diseases will be covered. Course includes lectures, readings, homework assignments, and several multiple choice examinations. Courseweb is utilized.	prevention and health care treatment efforts. With its focus of study in human populations, epidemiology is directly linked with public health research, policy, and practice. This course provides an introduction to the fundamental definitions, terminology, concepts, methods, and critical thinking used in epidemiology. The material presented in this course is designed to lay the foundation for future study and practice in public health activities.
EPIDEM 2142 – Lifestyle Intervention: Practicum	
This course follows the lifestyle intervention training theory course. The foundation for this practicum is the group lifestyle balance (GLB) program, a behavioral lifestyle intervention training based upon a modified version of the diabetes prevention program intervention protocol. The GLB has already been developed and evaluated by the course instructors. The lifestyle intervention training practicum will provide students with the opportunity to utilize their theoretical knowledge for behavioral lifestyle intervention with hands-on application in the field. This course will be a key component in the new prevention/ lifestyle intervention area of concentration within the department of epidemiology, providing the practical experience needed to deliver the group lifestyle balance program independently	WE DO NOT HAVE A CURRENT APPROVED SYLLABUS
EPIDEM 2143 – Social Epidemiology	
This course provides a broad exposure to the field of social epidemiology and allows students an opportunity for a targeted study of a particular problem from a social epidemiological framework. Social epidemiology reveals how social processes are intrinsically linked to the health of populations and individuals. Social epidemiology takes into account the social, psychological, biological, and medical determinants of disease and health and uses a multidisciplinary approach to analyzing and solving complex contemporary social issues. In this course, students will read major papers in the field and discuss their relevance to today's health research. Students will also learn about approaches for incorporating social epidemiology into their research. In particular, students will discuss the differences and similarities of social determinants and individual determinants of health. The final project will be a draft manuscript, which teams of students will work on together. This will include an introduction, methods and results section. Teaching methods include lectures, readings, class discussions, and written assignments. The written assignments will be pieces of a final project that will culminate into a draft manuscript using social epidemiology.	This course is designed to introduce students to a broad overview of the field of social epidemiology related to the history and development of the field including the theoretical underpinnings, conceptual approaches, current topic areas, and research methods. Social epidemiology reveals how social processes are intrinsically linked to the health of populations and individuals. Social epidemiology takes into account the social, psychological, biological, and medical determinants of disease and health and uses a multidisciplinary approach to analyzing and solving complex contemporary social issues. This course will emphasize the role of social determinants of health in relation to health equity. Teaching methods include lectures, readings, class discussions, and written assignments.
EPIDEM 2152 – Student Workshop in Cardiovascular Disease Epidemiology	
This course is designed to be a supplement to the standard epidemiology coursework. It is a ""hands on"" workshop that will provide the opportunity for students to practice many of the concepts that they learn in class in the context of CVD epidemiology. It will also cover some areas which are not covered by the current curriculum	This course is designed to be a supplement to the standard epidemiology coursework. It is a “hands on” workshop that will provide the opportunity for students to practice many of the concepts that they learn in class in the context of CVD epidemiology. It will also cover some areas which are not covered by the current curriculum,

including an introduction to subclinical CVD, professional development, reliability analyses and formal presentations of analysis results.	including an introduction to subclinical CVD, professional development, reliability analyses, and formal presentations of analysis results.
EPIDEM 2160 – Epidemiology of Infectious Diseases	
Presents the principles, concepts, methods for epidemiologic investigation, and measures for prevention and control of selected current infectious disease problems. Epi info, a microcomputer program developed by the centers for disease control, is utilized by the students for the write-up of at least one epidemic investigation. Course includes lectures, readings and discussions.	The goal of this course is to provide students with a basic understanding of epidemiologic techniques used to describe patterns of infectious disease transmission and risk for infection. In addition, students will learn about the epidemiology, public health impact, and prevention and control measures for selected infectious diseases. This course includes a series of lectures and practical exercises to introduce students to both the application of epidemiologic skills pertaining to infectious diseases and the public health concepts associated with specific infectious diseases.
EPIDEM 2163 – Global Epidemiology of Vaccines and Vaccination	
This course will provide students with knowledge and skills related to the study of vaccines and vaccination programs in the US/EU and in low- and middle income countries. This course will prepare students for entry-level positions in vaccine research or programs for academic, government, or private sector institutions. This course will provide a broad introduction to a wide range of vaccine related topics ranging from biological mechanisms of vaccines to vaccine financing. Within this range of topics, the course will focus heavily on the epidemiological study of vaccine efficacy, safety, effectiveness, and impact. The course is organized around four themes: 1) introduction; 2) types of vaccines; 3) vaccine research and development; and 3) vaccination programs. Throughout the course, students will complete a written assignment.	This course will provide students with knowledge and skills related to the study of vaccines and vaccination programs in the US/EU and in low- and middle income countries. This course will prepare students for entry-level positions in vaccine research or programming for academic, government, or private sector institutions. This course will provide a broad introduction to a wide range of vaccine related topics ranging from biological mechanisms of vaccines to vaccine financing. Within this range of topics, the course will focus heavily on the epidemiological study of vaccine efficacy, safety, effectiveness, and impact. The course is organized around four themes: 1) introduction; 2) vaccines; 3) research and development; and 3) vaccination programs.
EPIDEM 2170 – Chronic Disease Epidemiology	
The course will reinforce epidemiological concepts, research skills, and public health concepts in the context of the study of chronic diseases and associated risk factors. The course will provide an overview of the prevalence, incidence, and risk factors for major chronic diseases that face the U.S. Population and the populations around the world. Through the course, students will learn concepts and methodology used in chronic disease epidemiology research. Specific methodologies unique to certain chronic diseases will also be discussed.	This course will reinforce epidemiological concepts, research skills and public health concepts in the context of the study of chronic diseases and associated risk factors. The course will provide an overview of the prevalence, incidence and risk factors for major chronic diseases that face the U.S. population and the population around the world.
EPIDEM 2181 – Design and Conduct of Clinical Trials	
The course surveys methods in the design and conduct of clinical trials. Clinical trials require successful collaboration of clinical, organizational and statistical skills. This course will focus on clinical and organizational issues, such as patient selection, recruitment, endpoint definition and protocol development. Throughout the semester, students develop a clinical trial proposal that emphasizes the application of the concepts learned. The course will	The course surveys methods in the design and conduct of clinical trials. Clinical trials require successful collaboration of clinical, organizational and statistical skills. This course will focus on clinical and organizational issues, such as patient selection, recruitment, endpoint definition and protocol development. Throughout the semester, students develop a clinical trial proposal that emphasizes the application of the concepts learned. The course will complement courses in biostatistics on the statistical analysis of clinical trials.

complement courses in biostatistics on the statistical analysis of clinical trials.	
EPIDEM 2185 – Introduction to SAS	
This course is an introduction to SAS, a statistical software package commonly used to perform data preparation, statistical analysis, and graphical presentation of results. Students will learn to write basic SAS programs in order to perform data preparation, statistical analysis, and produce graphics. Students also will learn to make informed decisions regarding the appropriate SAS commands and options to use for these tasks. Students will use SAS for solving a set of simple specific research questions. At the end of the course students will feel comfortable using SAS as a tool for dealing with data manipulation, preparation of data for analysis and conducting simple statistical analysis with research data.	This course is an introduction to SAS, a statistical software package commonly used to perform data preparation, statistical analysis, and graphical presentation of results. The course consists of lectures and four lab sessions, where students will practice in a guided manner what was taught during the preceding lectures. The aim of this course is to teach students how to write basic SAS programs to import data, export data, create data sets within SAS, clean data, prepare data sets for analysis and apply statistical, as well as graphical, procedures. Students will also learn to make informed decisions regarding the appropriate SAS commands and options to use for these tasks and will be asked to use SAS for solving a set of simple specific research questions. Upon completion of this course students will feel comfortable using SAS as a tool to conduct research and know how to subsequently further develop their own SAS programming skills.
EPIDEM 2187 – Epidemiological Methods 2	
This course is an introduction to advanced epidemiology and statistical methods used in clinical and public health research. The focus is on the appropriate selection and application of statistical methods for answering research questions as well as the proper interpretation of results derived from these methods. Students will learn about the analysis of categorical data, survival data, and longitudinal data. The sample size and power issues involved when using these methods will also be covered. Students will be introduced to the causal inference framework, including the use of propensity scores and inverse probability weighting, and dynamic modeling. Students will gain experience with the statistical methods studied in this course by analyzing data sets with SAS.	This course is an introduction to advanced epidemiology and statistical methods used in clinical and public health research. The focus of the course is on the appropriate selection and application of statistical methods for answering research questions as well as the proper interpretation of results derived from these methods. Students will learn about the analysis of categorical data, survival data, and longitudinal data. The sample size and power issues involved when using these methods will also be covered. Students will be introduced to the causal inference framework, including the use of propensity scores and inverse probability weighting, and dynamic modeling. Students will gain experience with the statistical methods studied in this course by analyzing data sets with SAS.
EPIDEM 2250 – Seminar in Epidemiology	
Areas of current epidemiology interest in research are presented. Often a general theme such as epidemiology of aging, women's health issues, disorders of immunity, is chosen. All departmental majors are expected to take this course	This course is a weekly seminar series for the Department of Epidemiology. The seminars are a way to expose students and other attendees to a variety of topics covered in epidemiologic research, with a particular objective to obtain an outside perspective of research going on outside of your area of expertise. The seminars are also expected to be a time for students and attendees to network and interact with each other, as well as, with the invited speakers.

EPIDEM 2260 – Epidemiological Basis of Disease Control	
This course provides students with the foundational knowledge and tools needed to apply epidemiologic methods and research to the prevention and/or control of conditions of public health significance. Topical areas include infectious and chronic diseases, mental health conditions, and behavioral risk factors. The course develops students' skills in using analytic tools for assessing causal determinants of disease risk, determining prevention effectiveness, and estimating the public health impact of preventive interventions.	The purpose of this course is to gain understanding of the principles underlying disease prevention and the ability to apply these principles to the design, implementation and evaluation of prevention interventions for chronic and infectious diseases. The first part of the course will be devoted to learning the principles of surveillance and risk assessment development, the second part to application of observational data and efficacy and effectiveness studies to populations. The third part will focus on the evaluation of prevention strategies for chronic and infectious disease. Throughout the course, there will be an emphasis on the interaction of biologic and clinical information with epidemiologic data and analysis.
EPIDEM 2310 – Psychiatric Epidemiology	
Course reviews the classification system and methodological issues in psychiatric epidemiology, the distribution of specific psychiatric disorders, and the research methodologies used.	This course will review the classification systems and methodological issues in psychiatric epidemiology, the research methodologies used, and the distribution of specific psychiatric disorders.
EPIDEM 2340 – Pediatric Epidemiology	
This course will focus on epidemiologic approaches to the study of disorders that occur during childhood and will provide an overview of common physical and psychiatric childhood disorders. In addition to describing the epidemiology of the disorders, consideration will be given to the risk factors, research methods, and methodological issues in pediatric epidemiology.	This course will focus on epidemiologic approaches to the study of disorders that occur during childhood and will provide an overview of common physical and psychiatric childhood disorders. In addition to describing the epidemiology of the disorders, consideration will be given to the risk factors, research methods, and methodological issues in pediatric epidemiology.
EPIDEM 2560 – Nutritional Epidemiology	
This interactive course, involving lectures and in-class learning activities, provides students with the skills and knowledge necessary to understand and critically evaluate the nutritional epidemiology literature and design studies in nutritional epidemiology. The course reviews current methods of assessing nutritional status, with a focus on dietary assessment, as well as biological markers, supplement use, anthropometry, and obesity. The course addresses the application of epidemiologic methods to studies of nutrition and disease, highlighting methodological issues and interpretation of findings.	This interactive course, involving lectures and in-class learning activities, provides students with the skills and knowledge necessary to understand and critically evaluate the nutritional epidemiology literature and design studies in nutritional epidemiology. The course reviews current methods of assessing nutritional status, with a focus on dietary assessment, as well as biological markers, supplement use, anthropometry, and obesity. The course addresses the application of epidemiologic methods to studies of nutrition and disease, highlighting methodological issues and interpretation of findings.
EPIDEM 2725 – Reproductive Development from Model Organisms to Humans	
This course focuses on the molecular aspects of the transition from gamete to a reproductive organism. The course progresses through the building of germ cells, fertilization and stem cell participation to sex determination, gonad morphogenesis, puberty, menopause and pregnancy. This course highlights both human and model organisms to bring together diverse aspects of the cell and developmental biology of reproductive tissues and their impact on disease pathology.	WE DO NOT HAVE THE COURSE DESCRIPTION
EPIDEM 2950 – Epidemiology of Aging Workshop	

This course is designed to be a supplement to the other epidemiology of aging courses. The workshop provides the opportunity for students to apply concepts from the other courses to their in-progress research in the epidemiology of aging through active participation in presenting their research and critiquing of journal articles relevant to their research. Practical professional skills not covered in other courses include professional writing and career development topics. The content of the course rotates and will be driven by the research areas and interests of the students participating in the course each semester.	The workshops are designed as practical professional skill development to supplement to the additional coursework for the Epidemiology of Aging trainees and students. The workshop will include sessions on: presentations by the students from their research, journal article reviews, and professional skills sessions. The presentation sessions provide an opportunity for students to present and refine their interim research and data analyses by obtaining feedback from peers, faculty and mentors on their work in progress. Journal article review sessions will provide an opportunity for students to identify and share current articles relevant to the epidemiology of aging and develop proficiency in the critical review of scientific literature. Emphasis will be placed on understanding the methods used in the literature, and a mock manuscript review session will be included. A faculty member will help student leaders select one article (distributed before the meeting) and will work with students to encourage questions and discussion among the group. Professional skill sessions will vary by semester and cover topics such as post-doctoral career development, grant and professional medical writing, and longitudinal data analysis. Epidemiology of Aging trainees are expected to attend for the duration of their training and register for a minimum of two terms.
EPIDEM 2981 – Epidemiology of Aging – Methods	
The purpose of this course is to introduce students to the methodological aspects of epidemiological research in the field of aging and geriatrics. The course will focus on: demography, study design, sampling, recruitment, retention, measurement of key variables, and special populations. During this course, students will be asked to formulate a research question and develop an analysis plan. Students will write a critical review of a published article and comment on proposed future directions for epidemiologic studies addressing these questions in older populations. Part of the credit hours will include a field experience with one of the major studies.	This course will introduce the methodological aspects of epidemiologic research in the field of aging and to critically evaluate research in older adults. The course will focus on: demography, study design, sampling, recruitment, retention, measurement of key variables and special populations. Students will write a critical review of a published article and comment on proposed future directions for epidemiologic studies addressing these questions in older populations. Throughout the course, a Problem Solving Learning Method will be applied by prompting the students to solve pragmatic issues. Examples include: How to measure a specific outcome? What type of chronic health conditions may be related to the research question? How to operationalize specific measures of interest (e.g.: how to create a composite score for co-morbidity assessment?). The course has been formulated to provide the students with the “building blocks” of the epidemiological study of aging. By the end of the course, the students will be able to critically evaluate various components of a study to further address the research questions in aging populations.

Semester	Class (DEPT ####)	Instructor (Last name, First name)	Overall Teaching Effectiveness - Class Mean	Mean	Median	Percent above score of 3.5
Summer 2016	BCHS 2509	Terry,Martha Ann	5	4.51	4.67	100.00%
Summer 2016	PUBHLT 2015	Martinson,Jeremy James	4.67			
Summer 2016	PUBHLT 2015	Minster, Ryan	5			
Summer 2016	PUBHLT 2016	Van Nostrand, Elizabeth	4			
Summer 2016	PUBHLT 2016	Minster, Ryan	3.86			

	Semesters Offered| Overall teaching effectiveness OMET score											
Core Course & Instructor	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014	Spring 2015	Summer 2015	Fall 2015	Spring 2016	Summer 2016
BCHS 2509		4.45 Martha Terry	4.67 Martha Terry		4.13 Martha Terry	4.17 Martha Terry	4.13 Thistle Elias	4.04 Martha Terry	4.18 Martha Terry	4.2 Thistle Elias	4.47 Martha Terry	5 Martha Terry
BIOST 2011	2.89 Vinnie Arena			2.96 Vinnie Arena			2.72 Vinnie Arena			3.37 Ada Youk		
BIOST 2041	4.59 Sally Morton			4.45 Sally Morton			4.31 Sally Morton			4.56 Sally Morton		
BIOST 2042		3.9 John Wilson			4.15 John Wilson			2.59 Stewart Anderson			---------- Stewart Anderson	
EOH 2013		---------- Aaron Barchowsky			3.71 Aaron Barchowsky			3.55 Aaron Barchowsky			3.65 Aaron Barchowsky	
EPIDEM 2110	3.42 Tom Songer		4.15 Tom Songer	3.99 Tom Songer		3.85 Tom Songer	3.87 Tom Songer		3.95 Tom Songer	3.77 Tom Songer		---------- Tom Songer
HPM 2001		4.48 Everett James			4.6 Everett James		4.54 Everett James	4.23 Everett James		4.25 Everett James	4.18 Everett James	
PUBHLT 2011		4.25 Jeremy Martinson			4.06 Jeremy Martinson			4.36 Jeremy Martinson			4.11 Jeremy Martinson	
PUBHLT 2014	3.38 Gerry Barron			3.82 Gerry Barron			3.49 Gerry Barron			2.88 Gerry Barron		
PUBHLT 2015	4.7 Jeremy Martinson		4.53 Jeremy Martinson	4.46 Jeremy Martinson		4.25 Ryan Minster	4.69 Jeremy Martinson		4.18 Jeremy Martinson	4.42 Jeremy Martinson		4.67 | 5 Jeremy Martinson | Ryan Minster
PUBHLT 2016	4 Candy Kammerer	3.69 Candy Kammerer	4.33 Candy Kammerer	3.06 Candy Kammerer	3.6 Candy Kammerer	4 Candy Kammerer	4.1 Candy Kammerer		3.89 Elizabeth Bjerke	3.2 Candy Kammerer	2.31 | 3.43 Candy Kammerer	4 | 3.86 Elizabeth Bjerke | Ryan Minster

University of Pittsburgh
Office of Measurement and Evaluation of Teaching

Dear Professor Martha Terry:

Student Opinion of Teaching Questionnaire Results

This form contains survey results for SOCL BEHVRL SCI & PUBLC HLTH(BCHS-2509)-1100.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item (14 x .50 = 7). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

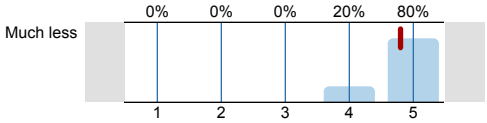
Office of Measurement and Evaluation of Teaching (OMET)

Professor Martha Terry

SOCL BEHVRL SCI & PUBLC HLTH(BCHS-2509)-11002167_UPITT_BCHS_2509_SEC1100
2167_12WK
5 RESPONDENTS = 27.78% OF NUMBER REGISTERED

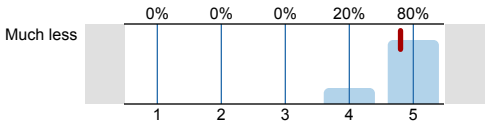
1. SELF RATINGS

1.1) Amount that you learned from this instructor.



n=5
av.=4.8
dev.=0.45

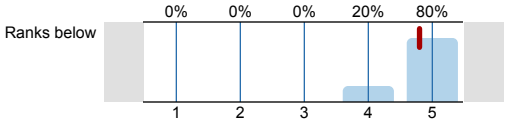
1.2) Amount this instructor increased your interest in the subject.



n=5
av.=4.8
dev.=0.45

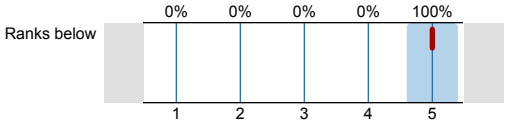
2. TEACHING EVALUATION

2.1) The instructor explained subject matter in a way that made it understandable.



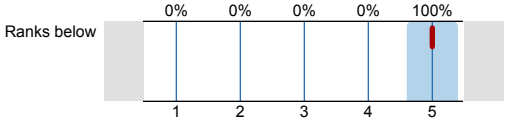
n=5
av.=4.8
dev.=0.45

2.2) The instructor made good use of examples to clarify concepts.



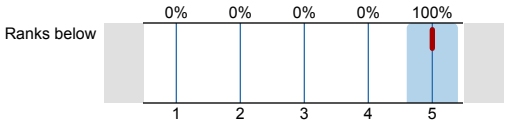
n=5
av.=5
dev.=0

2.3) The instructor conveyed his/her knowledge of subject.



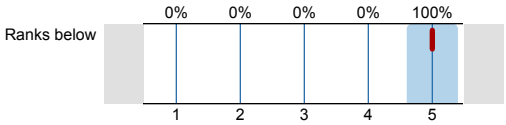
n=5
av.=5
dev.=0

2.4) The instructor maintained an environment where students felt comfortable asking questions.



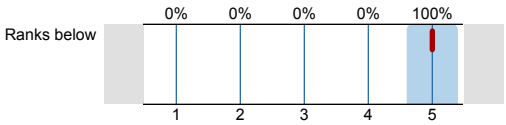
n=5
av.=5
dev.=0

2.5) The instructor generated interest in the subject.



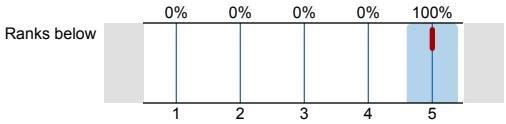
n=5
av.=5
dev.=0

2.6) The instructor presented course content in an organized manner.



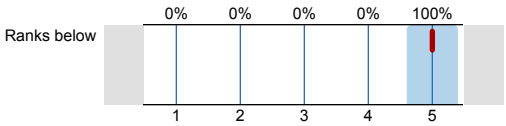
n=5
av.=5
dev.=0

2.7) The instructor included worthwhile information in class that was not duplicated in course materials.



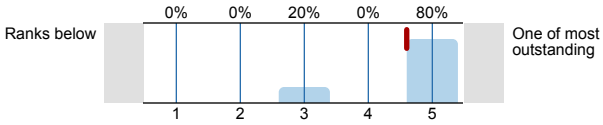
n=5
av.=5
dev.=0

2.8) The instructor stimulated a desire to learn more about this subject.



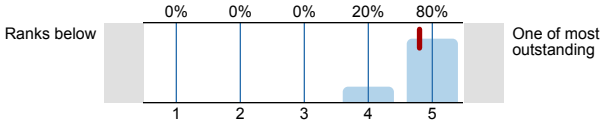
n=5
av.=5
dev.=0

2.9) The instructor provided useful feedback.



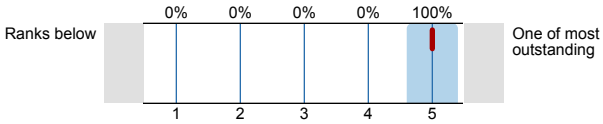
n=5
av.=4.6
dev.=0.89

2.10) The instructor encouraged independent thinking.



n=5
av.=4.8
dev.=0.45

2.11) Express your judgment of the instructor's **overall teaching effectiveness.**



n=5
av.=5
dev.=0

3. COURSE EVALUATION

3.1) Department in which you are enrolled:

n=5

BCHS	0%
EPID	0%
IDM	40%
BIOS	0%
HPM	0%
MMPH	40%
EOH	0%
HUGEN	0%
OTHER (non GSPH)	20%

3.2) I am taking this course as an elective.

n=5

No	80%
Yes	20%

3.3) Grade you expect in this course (PLEASE MARK ONLY ONE CATEGORY)

n=5

A	60%
B	40%
C	0%
D	0%
F	0%
H/S/U	0%
Noncredit Audit	0%

3.4) Credit hours of coursework you have completed in GSPH:

n=5

Less than 12 credit hours	40%
12-23	40%
24-35	20%
36 or more	0%

3.5) When did you receive your bachelor's degree?

n=5

Less than 5 years ago	40%
5-9 years ago	40%
10-14 years ago	20%
15 or more years ago	0%

3.6) Amount that I learned in this course.

n=5

Much less than in most courses I've taken	0%
Somewhat less	0%
About the same	0%
Somewhat more	60%
Much more	40%

3.7) Course objectives were presented and discussed.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

3.8) Stated objectives agreed with what was taught.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

3.9) Course made a worthwhile contribution to my professional development.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

3.10) Assigned work was appropriate to course level and credits.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	0%	100%

n=5
av.=5
dev.=0

3.11) Course content reflected recent developments in the field.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	20%	20%	60%

n=5
av.=4.4
dev.=0.89

3.12) Course content duplicated that of other courses I have taken.

Hardly at all — To a very high degree

1	2	3	4	5
20%	20%	0%	0%	60%

n=5
av.=3.6
dev.=1.95

3.13) Would you recommend this course to other students?

n=5

Definitely not	0%
Probably not	0%
Probably yes	20%
Definitely yes	80%

3.14) Lectures

n=5

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.15) Discussions

n=5

Very little	0%
Moderate amount	20%
Very much	80%
Does not apply	0%

3.16) Readings

n=5

Very little	20%
Moderate amount	60%
Very much	20%
Does not apply	0%

3.17) Assignments

n=5

Very little	0%
Moderate amount	20%
Very much	60%
Does not apply	20%

3.18) Exams

n=5

Very little	20%
Moderate amount	60%
Very much	20%
Does not apply	0%

3.19) Projects

n=5

Very little	0%
Moderate amount	40%
Very much	60%
Does not apply	0%

3.20) Written papers

n=5

Very little	0%
Moderate amount	40%
Very much	60%
Does not apply	0%

3.21) Handouts

n=5

Very little	0%
Moderate amount	60%
Very much	0%
Does not apply	40%

3.22) Classroom activities

n=5

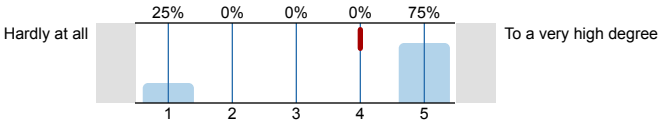
Very little	0%
Moderate amount	40%
Very much	60%
Does not apply	0%

3.23) Lab/Recitation

n=5

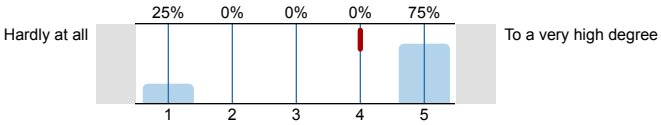
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.24) Guest lecturers avoided repetition of course material.



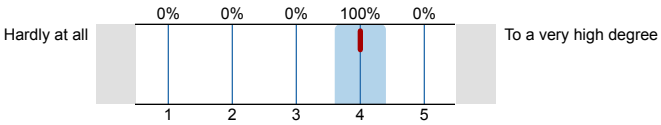
n=4
av.=4
dev.=2

3.25) There was continuity in content from one lecturer to the next.



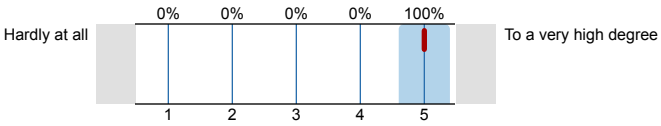
n=4
av.=4
dev.=2

3.26) The team-teaching approach provided insights a single instructor could not provide.



n=1
av.=4
dev.=0

3.27) Team-teaching was used effectively in this course.



n=1
av.=5
dev.=0

Profile

Subunit:	PUBLIC HEALTH
Name of the instructor:	Professor Martha Terry,
Name of the course: (Name of the survey)	SOCL BEHVRL SCI & PUBLC HLTH(BCHS-2509)-1100 (2167_UPITT_BCHS_2509_SEC1100)

Values used in the profile line: Mean

1. SELF RATINGS

1.1)	Amount that you learned from this instructor.	Much less	Much more	n=5	av.=4.80 md=5.00 dev.=0.45
1.2)	Amount this instructor increased your interest in the subject.	Much less	Much more	n=5	av.=4.80 md=5.00 dev.=0.45

2. TEACHING EVALUATION

2.1)	The instructor explained subject matter in a way that made it understandable.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.2)	The instructor made good use of examples to clarify concepts.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.3)	The instructor conveyed his/her knowledge of subject.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.4)	The instructor maintained an environment where students felt comfortable asking questions.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.5)	The instructor generated interest in the subject.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.6)	The instructor presented course content in an organized manner.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.7)	The instructor included worthwhile information in class that was not duplicated in course materials.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.8)	The instructor stimulated a desire to learn more about this subject.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.9)	The instructor provided useful feedback.	Ranks below	One of most outstanding	n=5	av.=4.60 md=5.00 dev.=0.89
2.10)	The instructor encouraged independent thinking.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.11)	Express your judgment of the instructor's **overall teaching effectiveness.**	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00

3. COURSE EVALUATION

3.7)	Course objectives were presented and discussed.	Hardly at all	To a very high degree	n=5	av.=4.80 md=5.00 dev.=0.45
3.8)	Stated objectives agreed with what was taught.	Hardly at all	To a very high degree	n=5	av.=4.80 md=5.00 dev.=0.45
3.9)	Course made a worthwhile contribution to my professional development.	Hardly at all	To a very high degree	n=5	av.=4.80 md=5.00 dev.=0.45
3.10)	Assigned work was appropriate to course level and credits.	Hardly at all	To a very high degree	n=5	av.=5.00 md=5.00 dev.=0.00

3.11)	Course content reflected recent developments in the field.	Hardly at all	To a very high degree	n=5 av.=4.40 md=5.00 dev.=0.89
3.12)	Course content duplicated that of other courses I have taken.	Hardly at all	To a very high degree	n=5 av.=3.60 md=5.00 dev.=1.95
3.24)	Guest lecturers avoided repetition of course material.	Hardly at all	To a very high degree	n=4 av.=4.00 md=5.00 dev.=2.00
3.25)	There was continuity in content from one lecturer to the next.	Hardly at all	To a very high degree	n=4 av.=4.00 md=5.00 dev.=2.00
3.26)	The team-teaching approach provided insights a single instructor could not provide.	Hardly at all	To a very high degree	n=1 av.=4.00 md=4.00 dev.=0.00
3.27)	Team-teaching was used effectively in this course.	Hardly at all	To a very high degree	n=1 av.=5.00 md=5.00 dev.=0.00

University of Pittsburgh
Office of Measurement and Evaluation of Teaching

Dear Professor Martha Terry:

Student Opinion of Teaching Questionnaire Results

This form contains survey results for SOCL BEHVRL SCI & PUBLC HLTH(BCHS-2509)-1110.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item (14 x .50 = 7). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

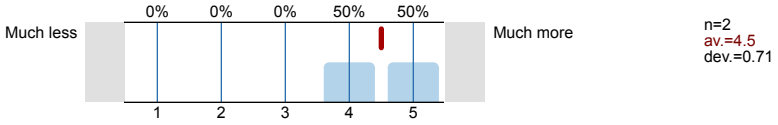
Office of Measurement and Evaluation of Teaching (OMET)

Professor Martha Terry

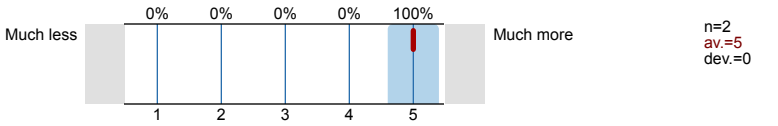
SOCL BEHVRL SCI & PUBLC HLTH(BCHS-2509)-11102167_UPITT_BCHS_2509_SEC1110
2167_12WK
2 RESPONDENTS = 11.11% OF NUMBER REGISTERED

1. SELF RATINGS

1.1) Amount that you learned from this instructor.

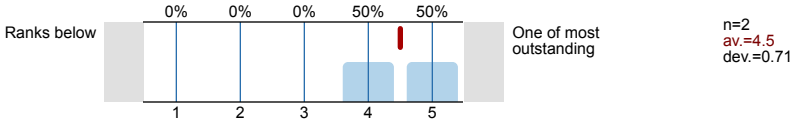


1.2) Amount this instructor increased your interest in the subject.

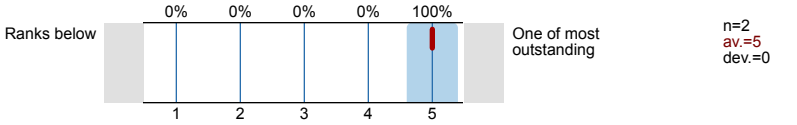


2. TEACHING EVALUATION

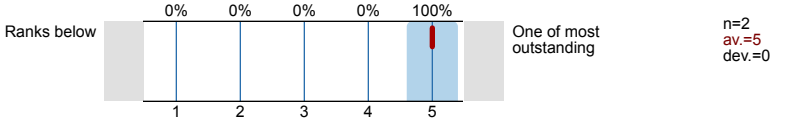
2.1) The instructor explained subject matter in a way that made it understandable.



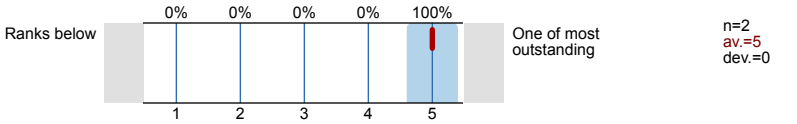
2.2) The instructor made good use of examples to clarify concepts.



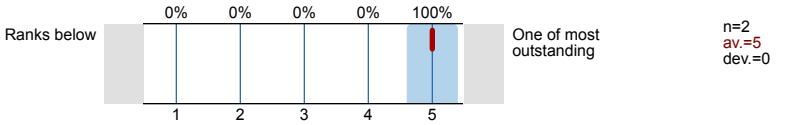
2.3) The instructor conveyed his/her knowledge of subject.



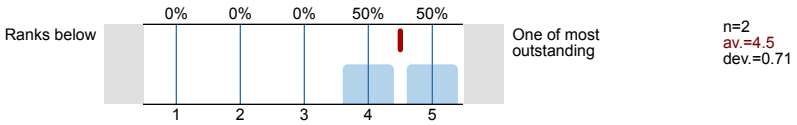
2.4) The instructor maintained an environment where students felt comfortable asking questions.



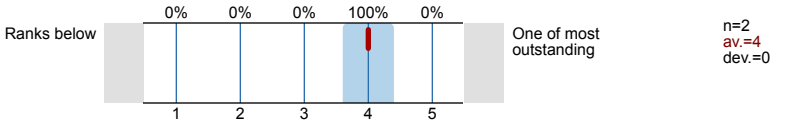
2.5) The instructor generated interest in the subject.



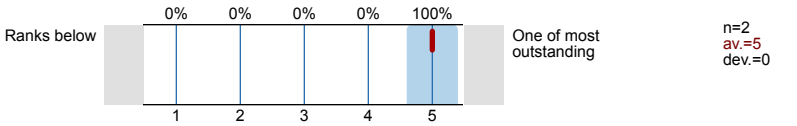
2.6) The instructor presented course content in an organized manner.



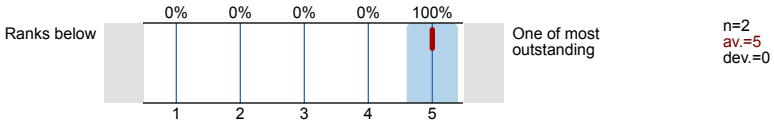
2.7) The instructor included worthwhile information in class that was not duplicated in course materials.



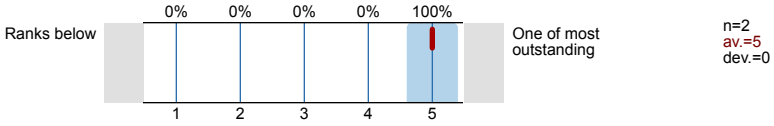
2.8) The instructor stimulated a desire to learn more about this subject.



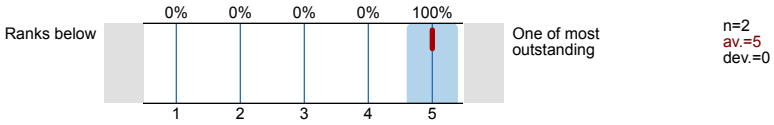
2.9) The instructor provided useful feedback.



2.10) The instructor encouraged independent thinking.

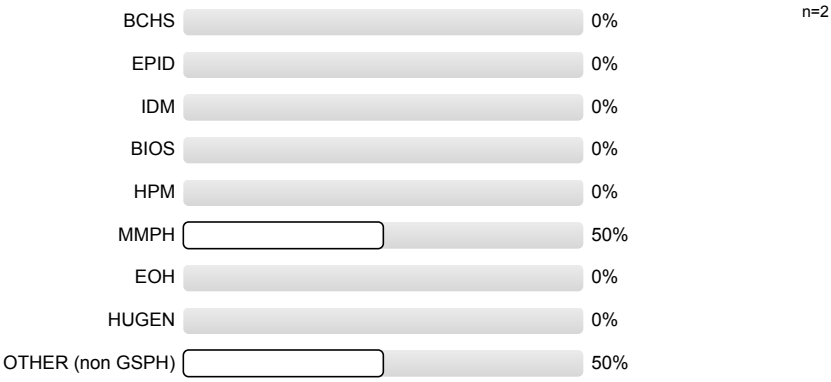


2.11) Express your judgment of the instructor's **overall teaching effectiveness.**



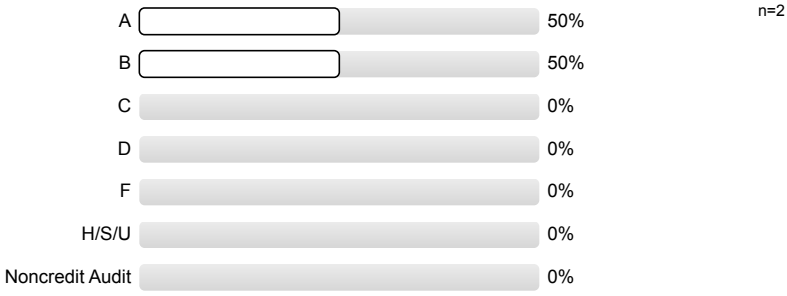
3. COURSE EVALUATION

3.1) Department in which you are enrolled:

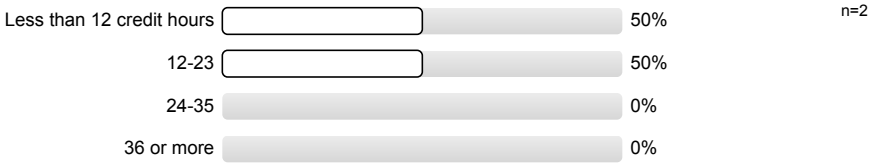


3.2) I am taking this course as an elective.

3.3) Grade you expect in this course (PLEASE MARK ONLY ONE CATEGORY)



3.4) Credit hours of coursework you have completed in GSPH:



3.5) When did you receive your bachelor's degree?

n=2

Less than 5 years ago	50%
5-9 years ago	0%
10-14 years ago	50%
15 or more years ago	0%

3.6) Amount that I learned in this course.

n=2

Much less than in most courses I've taken	0%
Somewhat less	0%
About the same	0%
Somewhat more	100%
Much more	0%

3.7) Course objectives were presented and discussed.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	0%	100%

n=2
av.=5
dev.=0

3.8) Stated objectives agreed with what was taught.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	0%	100%

n=2
av.=5
dev.=0

3.9) Course made a worthwhile contribution to my professional development.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	0%	100%

n=2
av.=5
dev.=0

3.10) Assigned work was appropriate to course level and credits.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	50%	50%

n=2
av.=4.5
dev.=0.71

3.11) Course content reflected recent developments in the field.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	0%	100%

n=1
av.=5
dev.=0

3.12) Course content duplicated that of other courses I have taken.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	50%	0%	50%

n=2
av.=4
dev.=1.41

3.13) Would you recommend this course to other students?

n=2

Definitely not	0%
Probably not	0%
Probably yes	0%
Definitely yes	100%

3.14) Lectures

n=2

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.15) Discussions

n=2

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.16) Readings

n=2

Very little	50%
Moderate amount	50%
Very much	0%
Does not apply	0%

3.17) Assignments

n=2

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.18) Exams

n=2

Very little	0%
Moderate amount	0%
Very much	50%
Does not apply	50%

3.19) Projects

n=2

Very little	0%
Moderate amount	50%
Very much	50%
Does not apply	0%

3.20) Written papers

n=2

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.21) Handouts

n=2

Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.22) Classroom activities

n=2

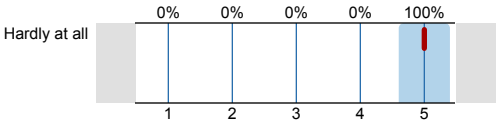
Very little	0%
Moderate amount	50%
Very much	50%
Does not apply	0%

3.23) Lab/Recitation

n=2

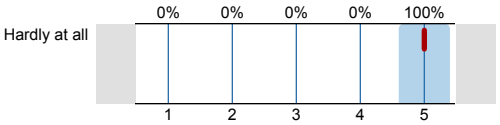
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.24) Guest lecturers avoided repetition of course material.



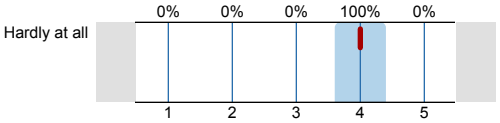
n=1
av.=5
dev.=0

3.25) There was continuity in content from one lecturer to the next.



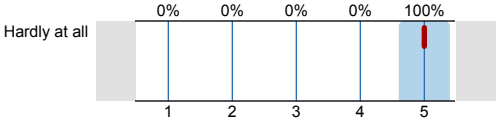
n=1
av.=5
dev.=0

3.26) The team-teaching approach provided insights a single instructor could not provide.



n=1
av.=4
dev.=0

3.27) Team-teaching was used effectively in this course.



n=1
av.=5
dev.=0

Profile

Subunit: PUBLIC HEALTH
Name of the instructor: Professor Martha Terry,
Name of the course: (Name of the survey) SOCL BEHVRL SCI & PUBLC HLTH(BCHS-2509)-1110 (2167_UPITT_BCHS_2509_SEC1110)

Values used in the profile line: Mean

1. SELF RATINGS

1.1)	Amount that you learned from this instructor.	Much less — Much more	n=2	av.=4.50 md=4.50 dev.=0.71
1.2)	Amount this instructor increased your interest in the subject.	Much less — Much more	n=2	av.=5.00 md=5.00 dev.=0.00

2. TEACHING EVALUATION

2.1)	The instructor explained subject matter in a way that made it understandable.	Ranks below — One of most outstanding	n=2	av.=4.50 md=4.50 dev.=0.71
2.2)	The instructor made good use of examples to clarify concepts.	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00
2.3)	The instructor conveyed his/her knowledge of subject.	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00
2.4)	The instructor maintained an environment where students felt comfortable asking questions.	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00
2.5)	The instructor generated interest in the subject.	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00
2.6)	The instructor presented course content in an organized manner.	Ranks below — One of most outstanding	n=2	av.=4.50 md=4.50 dev.=0.71
2.7)	The instructor included worthwhile information in class that was not duplicated in course materials.	Ranks below — One of most outstanding	n=2	av.=4.00 md=4.00 dev.=0.00
2.8)	The instructor stimulated a desire to learn more about this subject.	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00
2.9)	The instructor provided useful feedback.	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00
2.10)	The instructor encouraged independent thinking.	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00
2.11)	Express your judgment of the instructor's **overall teaching effectiveness.**	Ranks below — One of most outstanding	n=2	av.=5.00 md=5.00 dev.=0.00

3. COURSE EVALUATION

3.7)	Course objectives were presented and discussed.	Hardly at all — To a very high degree	n=2	av.=5.00 md=5.00 dev.=0.00
3.8)	Stated objectives agreed with what was taught.	Hardly at all — To a very high degree	n=2	av.=5.00 md=5.00 dev.=0.00
3.9)	Course made a worthwhile contribution to my professional development.	Hardly at all — To a very high degree	n=2	av.=5.00 md=5.00 dev.=0.00
3.10)	Assigned work was appropriate to course level and credits.	Hardly at all — To a very high degree	n=2	av.=4.50 md=4.50 dev.=0.71

3.11)	Course content reflected recent developments in the field.	Hardly at all / To a very high degree	n=1	av.=5.00 md=5.00 dev.=0.00
3.12)	Course content duplicated that of other courses I have taken.	Hardly at all / To a very high degree	n=2	av.=4.00 md=4.00 dev.=1.41
3.24)	Guest lecturers avoided repetition of course material.	Hardly at all / To a very high degree	n=1	av.=5.00 md=5.00 dev.=0.00
3.25)	There was continuity in content from one lecturer to the next.	Hardly at all / To a very high degree	n=1	av.=5.00 md=5.00 dev.=0.00
3.26)	The team-teaching approach provided insights a single instructor could not provide.	Hardly at all / To a very high degree	n=1	av.=4.00 md=4.00 dev.=0.00
3.27)	Team-teaching was used effectively in this course.	Hardly at all / To a very high degree	n=1	av.=5.00 md=5.00 dev.=0.00

University of Pittsburgh
Office of Measurement and Evaluation of Teaching

Dear Professor Jeremy James Martinson:

Student Opinion of Teaching Questionnaire Results

This form contains survey results for PUBLIC HEALTH BIOLOGY(PUBHLT-2015)-1040.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item (14 x .50 = 7). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

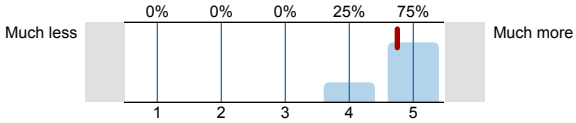
Office of Measurement and Evaluation of Teaching (OMET)

Professor Jeremy James Martinson

PUBLIC HEALTH BIOLOGY(PUBHLT-2015)-10402167_UPITT_PUBHLT_2015_SEC1040
2167_12WK
4 RESPONDENTS = 22.22% OF NUMBER REGISTERED

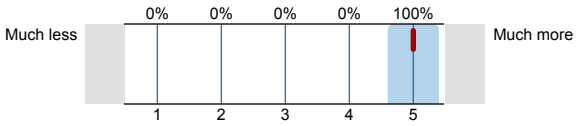
1. SELF RATINGS

1.1) Amount that you learned from this instructor.



n=4
av.=4.75
dev.=0.5

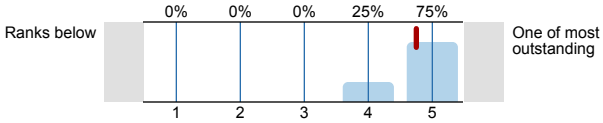
1.2) Amount this instructor increased your interest in the subject.



n=4
av.=5
dev.=0

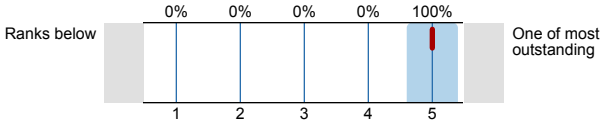
2. TEACHING EVALUATION

2.1) The instructor explained subject matter in a way that made it understandable.



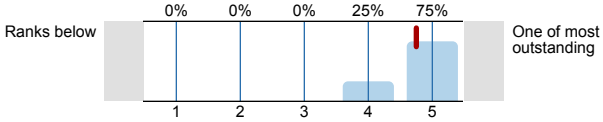
n=4
av.=4.75
dev.=0.5

2.2) The instructor made good use of examples to clarify concepts.



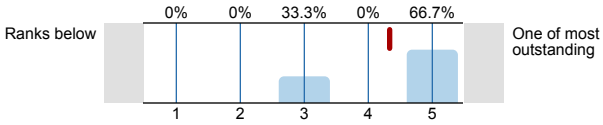
n=4
av.=5
dev.=0

2.3) The instructor conveyed his/her knowledge of subject.



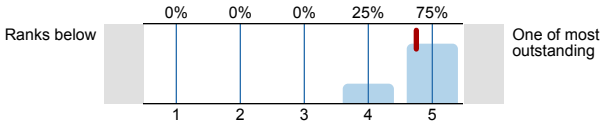
n=4
av.=4.75
dev.=0.5

2.4) The instructor maintained an environment where students felt comfortable asking questions.



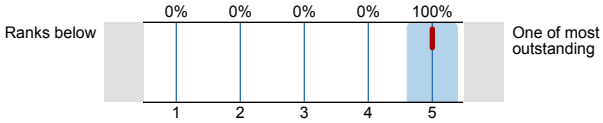
n=3
av.=4.33
dev.=1.15

2.5) The instructor generated interest in the subject.



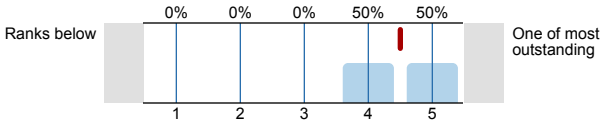
n=4
av.=4.75
dev.=0.5

2.6) The instructor presented course content in an organized manner.



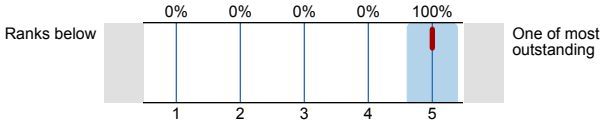
n=4
av.=5
dev.=0

2.7) The instructor included worthwhile information in class that was not duplicated in course materials.



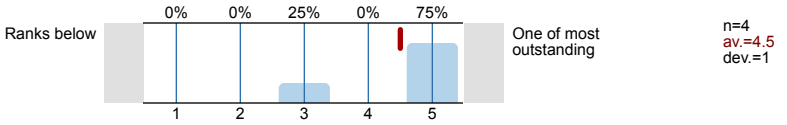
n=4
av.=4.5
dev.=0.58

2.8) The instructor stimulated a desire to learn more about this subject.

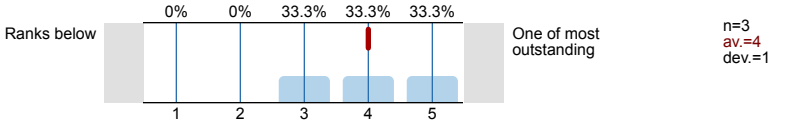


n=4
av.=5
dev.=0

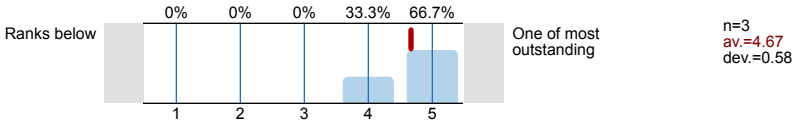
2.9) The instructor provided useful feedback.



2.10) The instructor encouraged independent thinking.

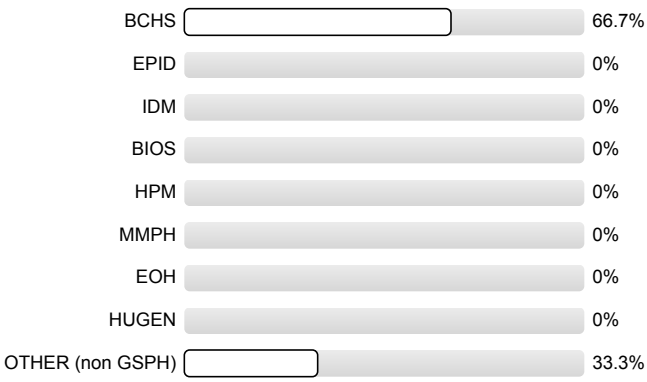


2.11) Express your judgment of the instructor's **overall teaching effectiveness.**

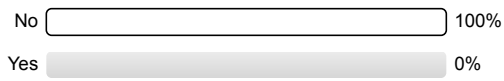


3. COURSE EVALUATION

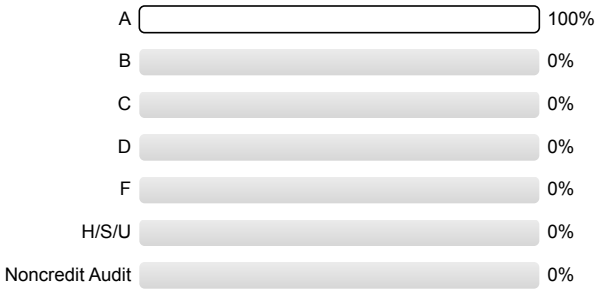
3.1) Department in which you are enrolled:



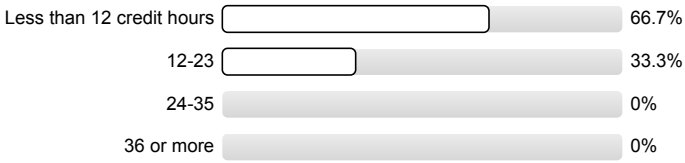
3.2) I am taking this course as an elective.



3.3) Grade you expect in this course (PLEASE MARK ONLY ONE CATEGORY)



3.4) Credit hours of coursework you have completed in GSPH:



3.5) When did you receive your bachelor's degree?

n=3

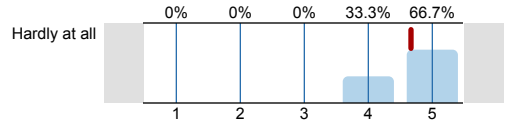
Less than 5 years ago	66.7%
5-9 years ago	0%
10-14 years ago	0%
15 or more years ago	33.3%

3.6) Amount that I learned in this course.

n=3

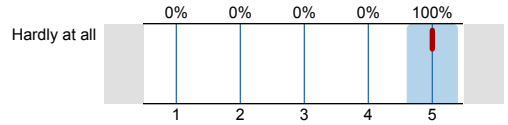
Much less than in most courses I've taken	0%
Somewhat less	0%
About the same	0%
Somewhat more	66.7%
Much more	33.3%

3.7) Course objectives were presented and discussed.



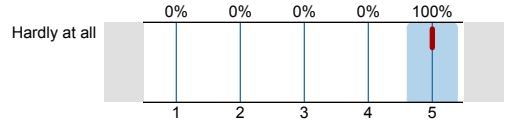
n=3
av.=4.67
dev.=0.58

3.8) Stated objectives agreed with what was taught.



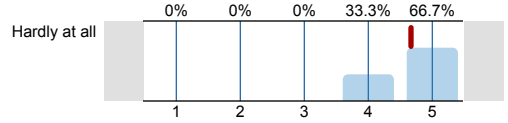
n=3
av.=5
dev.=0

3.9) Course made a worthwhile contribution to my professional development.



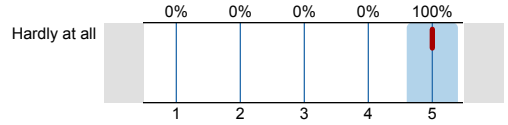
n=3
av.=5
dev.=0

3.10) Assigned work was appropriate to course level and credits.



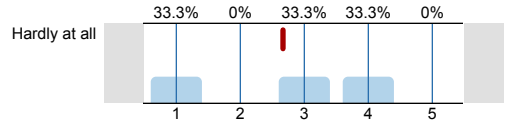
n=3
av.=4.67
dev.=0.58

3.11) Course content reflected recent developments in the field.



n=3
av.=5
dev.=0

3.12) Course content duplicated that of other courses I have taken.



n=3
av.=2.67
dev.=1.53

3.13) Would you recommend this course to other students?

n=3

Definitely not	0%
Probably not	0%
Probably yes	33.3%
Definitely yes	66.7%

3.14) Lectures

n=3

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.15) Discussions

n=3

Very little	0%
Moderate amount	100%
Very much	0%
Does not apply	0%

3.16) Readings

n=3

Very little	33.3%
Moderate amount	66.7%
Very much	0%
Does not apply	0%

3.17) Assignments

n=3

Very little	0%
Moderate amount	33.3%
Very much	66.7%
Does not apply	0%

3.18) Exams

n=3

Very little	0%
Moderate amount	66.7%
Very much	33.3%
Does not apply	0%

3.19) Projects

n=3

Very little	0%
Moderate amount	66.7%
Very much	33.3%
Does not apply	0%

3.20) Written papers

n=3

Very little	0%
Moderate amount	0%
Very much	33.3%
Does not apply	66.7%

3.21) Handouts

n=3

Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.22) Classroom activities

n=3

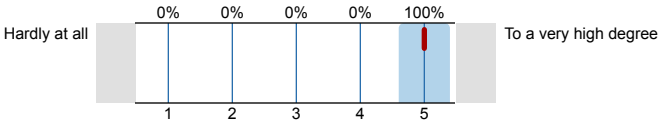
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.23) Lab/Recitation

n=3

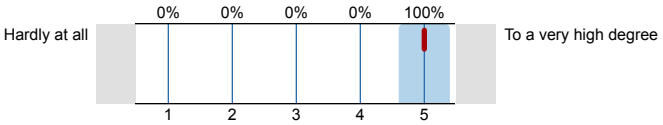
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.24) Guest lecturers avoided repetition of course material.



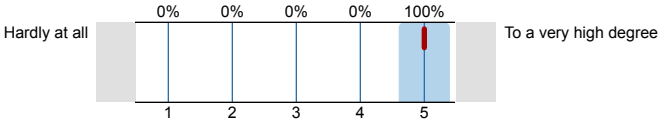
n=2
av.=5
dev.=0

3.25) There was continuity in content from one lecturer to the next.



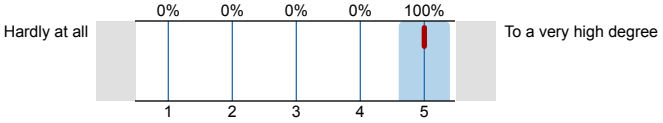
n=2
av.=5
dev.=0

3.26) The team-teaching approach provided insights a single instructor could not provide.



n=2
av.=5
dev.=0

3.27) Team-teaching was used effectively in this course.



n=2
av.=5
dev.=0

Profile

Subunit:	PUBLIC HEALTH
Name of the instructor:	Professor Jeremy James Martinson,
Name of the course: (Name of the survey)	PUBLIC HEALTH BIOLOGY(PUBHLT-2015)-1040

Values used in the profile line: Mean

1. SELF RATINGS

1.1)	Amount that you learned from this instructor.	Much less	Much more	n=4	av.=4.75 md=5.00 dev.=0.50
1.2)	Amount this instructor increased your interest in the subject.	Much less	Much more	n=4	av.=5.00 md=5.00 dev.=0.00

2. TEACHING EVALUATION

2.1)	The instructor explained subject matter in a way that made it understandable.	Ranks below	One of most outstanding	n=4	av.=4.75 md=5.00 dev.=0.50
2.2)	The instructor made good use of examples to clarify concepts.	Ranks below	One of most outstanding	n=4	av.=5.00 md=5.00 dev.=0.00
2.3)	The instructor conveyed his/her knowledge of subject.	Ranks below	One of most outstanding	n=4	av.=4.75 md=5.00 dev.=0.50
2.4)	The instructor maintained an environment where students felt comfortable asking questions.	Ranks below	One of most outstanding	n=3	av.=4.33 md=5.00 dev.=1.15
2.5)	The instructor generated interest in the subject.	Ranks below	One of most outstanding	n=4	av.=4.75 md=5.00 dev.=0.50
2.6)	The instructor presented course content in an organized manner.	Ranks below	One of most outstanding	n=4	av.=5.00 md=5.00 dev.=0.00
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2.11)	Express your judgment of the instructor's **overall teaching effectiveness.**	Ranks below	One of most outstanding	n=3	av.=4.67 md=5.00 dev.=0.58

3. COURSE EVALUATION

3.7)	Course objectives were presented and discussed.	Hardly at all	To a very high degree	n=3	av.=4.67 md=5.00 dev.=0.58
3.8)	Stated objectives agreed with what was taught.	Hardly at all	To a very high degree	n=3	av.=5.00 md=5.00 dev.=0.00
3.9)	Course made a worthwhile contribution to my professional development.	Hardly at all	To a very high degree	n=3	av.=5.00 md=5.00 dev.=0.00
3.10)	Assigned work was appropriate to course level and credits.	Hardly at all	To a very high degree	n=3	av.=4.67 md=5.00 dev.=0.58

3.11)	Course content reflected recent developments in the field.	Hardly at all — To a very high degree	n=3	av.=5.00 md=5.00 dev.=0.00
3.12)	Course content duplicated that of other courses I have taken.	Hardly at all — To a very high degree	n=3	av.=2.67 md=3.00 dev.=1.53
3.24)	Guest lecturers avoided repetition of course material.	Hardly at all — To a very high degree	n=2	av.=5.00 md=5.00 dev.=0.00
3.25)	There was continuity in content from one lecturer to the next.	Hardly at all — To a very high degree	n=2	av.=5.00 md=5.00 dev.=0.00
3.26)	The team-teaching approach provided insights a single instructor could not provide.	Hardly at all — To a very high degree	n=2	av.=5.00 md=5.00 dev.=0.00
3.27)	Team-teaching was used effectively in this course.	Hardly at all — To a very high degree	n=2	av.=5.00 md=5.00 dev.=0.00

University of Pittsburgh
Office of Measurement and Evaluation of Teaching

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Student Opinion of Teaching Questionnaire Results

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The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

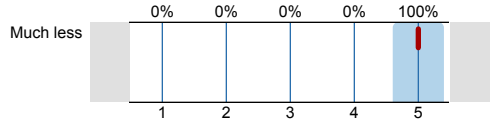
Office of Measurement and Evaluation of Teaching (OMET)

Professor Jeremy James Martinson

PUBLIC HEALTH BIOLOGY(PUBHLT-2015)-10502167_UPITT_PUBHLT_2015_SEC1050
2167_12WK
4 RESPONDENTS = 22.22% OF NUMBER REGISTERED

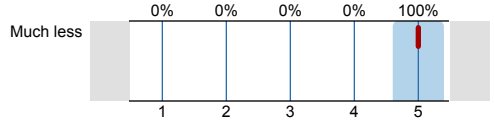
1. SELF RATINGS

1.1) Amount that you learned from this instructor.



n=3
av.=5
dev.=0

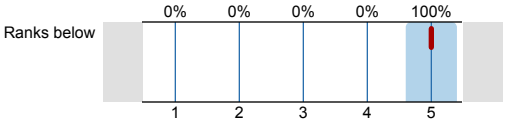
1.2) Amount this instructor increased your interest in the subject.



n=3
av.=5
dev.=0

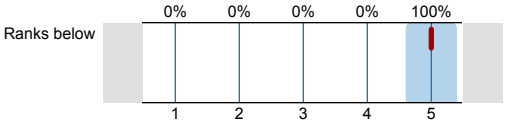
2. TEACHING EVALUATION

2.1) The instructor explained subject matter in a way that made it understandable.



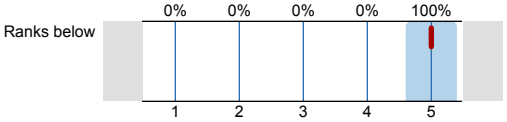
n=3
av.=5
dev.=0

2.2) The instructor made good use of examples to clarify concepts.



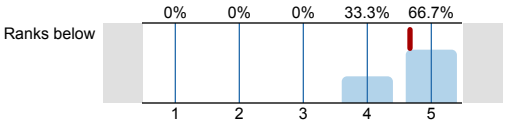
n=3
av.=5
dev.=0

2.3) The instructor conveyed his/her knowledge of subject.



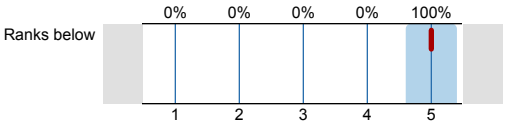
n=3
av.=5
dev.=0

2.4) The instructor maintained an environment where students felt comfortable asking questions.



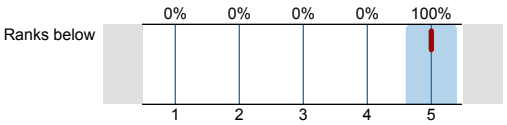
n=3
av.=4.67
dev.=0.58

2.5) The instructor generated interest in the subject.



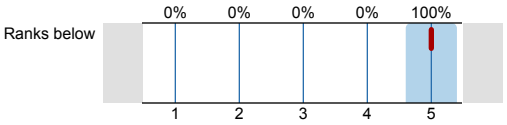
n=3
av.=5
dev.=0

2.6) The instructor presented course content in an organized manner.



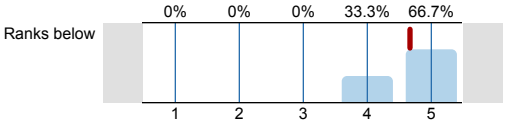
n=3
av.=5
dev.=0

2.7) The instructor included worthwhile information in class that was not duplicated in course materials.



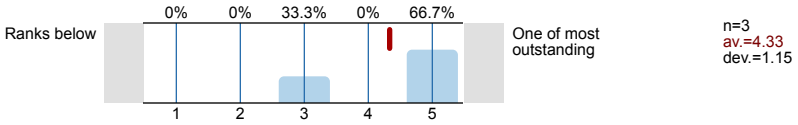
n=3
av.=5
dev.=0

2.8) The instructor stimulated a desire to learn more about this subject.

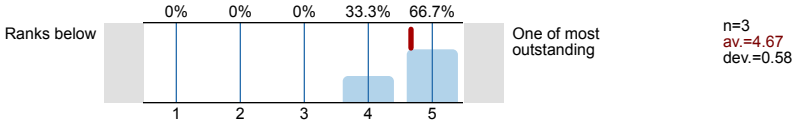


n=3
av.=4.67
dev.=0.58

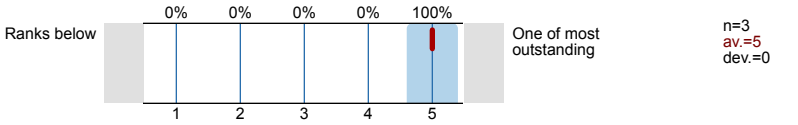
2.9) The instructor provided useful feedback.



2.10) The instructor encouraged independent thinking.

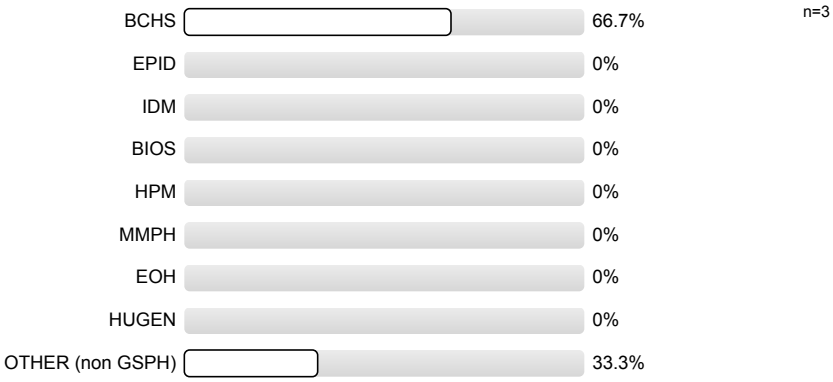


2.11) Express your judgment of the instructor's **overall teaching effectiveness.**

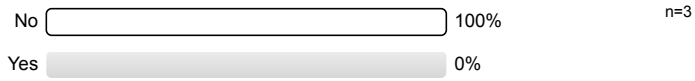


3. COURSE EVALUATION

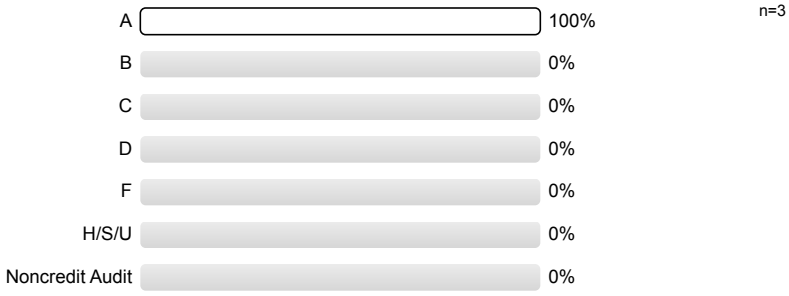
3.1) Department in which you are enrolled:



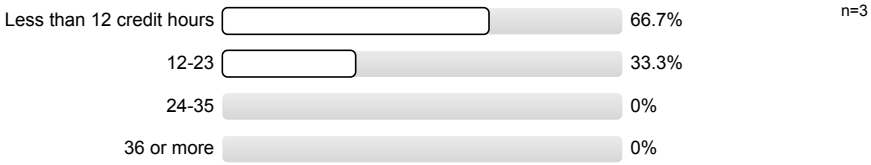
3.2) I am taking this course as an elective.



3.3) Grade you expect in this course (PLEASE MARK ONLY ONE CATEGORY)



3.4) Credit hours of coursework you have completed in GSPH:



3.5) When did you receive your bachelor's degree?

n=3

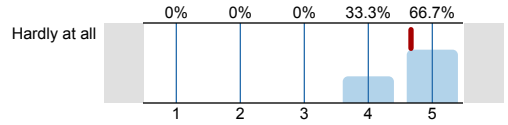
Less than 5 years ago	66.7%
5-9 years ago	0%
10-14 years ago	0%
15 or more years ago	33.3%

3.6) Amount that I learned in this course.

n=3

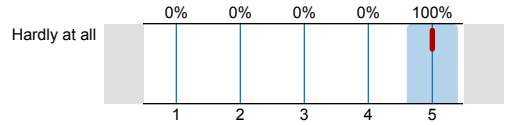
Much less than in most courses I've taken	0%
Somewhat less	0%
About the same	0%
Somewhat more	66.7%
Much more	33.3%

3.7) Course objectives were presented and discussed.



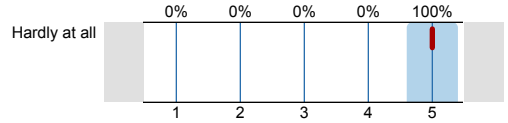
n=3
av.=4.67
dev.=0.58

3.8) Stated objectives agreed with what was taught.



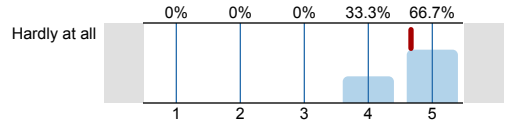
n=3
av.=5
dev.=0

3.9) Course made a worthwhile contribution to my professional development.



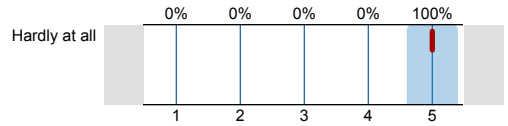
n=3
av.=5
dev.=0

3.10) Assigned work was appropriate to course level and credits.



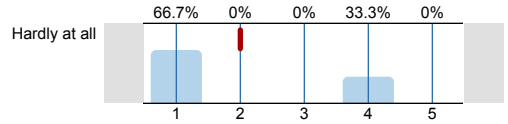
n=3
av.=4.67
dev.=0.58

3.11) Course content reflected recent developments in the field.



n=3
av.=5
dev.=0

3.12) Course content duplicated that of other courses I have taken.



n=3
av.=2
dev.=1.73

3.13) Would you recommend this course to other students?

n=3

Definitely not	0%
Probably not	0%
Probably yes	0%
Definitely yes	100%

3.14) Lectures

n=3

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.15) Discussions

n=3

Very little	0%
Moderate amount	66.7%
Very much	33.3%
Does not apply	0%

3.16) Readings

n=3

Very little	0%
Moderate amount	100%
Very much	0%
Does not apply	0%

3.17) Assignments

n=3

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.18) Exams

n=3

Very little	0%
Moderate amount	33.3%
Very much	66.7%
Does not apply	0%

3.19) Projects

n=3

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.20) Written papers

n=3

Very little	0%
Moderate amount	0%
Very much	33.3%
Does not apply	66.7%

3.21) Handouts

n=3

Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.22) Classroom activities

n=3

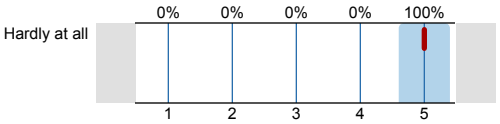
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.23) Lab/Recitation

n=3

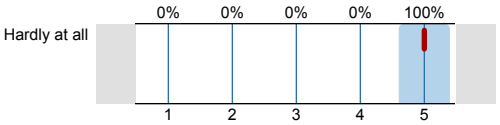
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.24) Guest lecturers avoided repetition of course material.



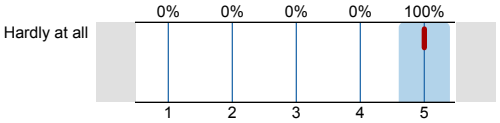
n=3
av.=5
dev.=0

3.25) There was continuity in content from one lecturer to the next.



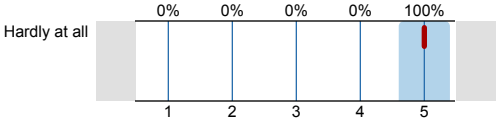
n=3
av.=5
dev.=0

3.26) The team-teaching approach provided insights a single instructor could not provide.



n=1
av.=5
dev.=0

3.27) Team-teaching was used effectively in this course.



n=1
av.=5
dev.=0

Profile

Subunit:	PUBLIC HEALTH
Name of the instructor:	Professor Jeremy James Martinson,
Name of the course: (Name of the survey)	PUBLIC HEALTH BIOLOGY(PUBHLT-2015)-1050 (2167_UPITT_PUBHLT_2015_SEC1050)

Values used in the profile line: Mean

1. SELF RATINGS

1.1)	Amount that you learned from this instructor.	Much less	Much more	n=3	av.=5.00 md=5.00 dev.=0.00
1.2)	Amount this instructor increased your interest in the subject.	Much less	Much more	n=3	av.=5.00 md=5.00 dev.=0.00

2. TEACHING EVALUATION

2.1)	The instructor explained subject matter in a way that made it understandable.	Ranks below	One of most outstanding	n=3	av.=5.00 md=5.00 dev.=0.00
2.2)	The instructor made good use of examples to clarify concepts.	Ranks below	One of most outstanding	n=3	av.=5.00 md=5.00 dev.=0.00
2.3)	The instructor conveyed his/her knowledge of subject.	Ranks below	One of most outstanding	n=3	av.=5.00 md=5.00 dev.=0.00
2.4)	The instructor maintained an environment where students felt comfortable asking questions.	Ranks below	One of most outstanding	n=3	av.=4.67 md=5.00 dev.=0.58
2.5)	The instructor generated interest in the subject.	Ranks below	One of most outstanding	n=3	av.=5.00 md=5.00 dev.=0.00
2.6)	The instructor presented course content in an organized manner.	Ranks below	One of most outstanding	n=3	av.=5.00 md=5.00 dev.=0.00
2.7)	The instructor included worthwhile information in class that was not duplicated in course materials.	Ranks below	One of most outstanding	n=3	av.=5.00 md=5.00 dev.=0.00
2.8)	The instructor stimulated a desire to learn more about this subject.	Ranks below	One of most outstanding	n=3	av.=4.67 md=5.00 dev.=0.58
2.9)	The instructor provided useful feedback.	Ranks below	One of most outstanding	n=3	av.=4.33 md=5.00 dev.=1.15
2.10)	The instructor encouraged independent thinking.	Ranks below	One of most outstanding	n=3	av.=4.67 md=5.00 dev.=0.58
2.11)	Express your judgment of the instructor's **overall teaching effectiveness.**	Ranks below	One of most outstanding	n=3	av.=5.00 md=5.00 dev.=0.00

3. COURSE EVALUATION

3.7)	Course objectives were presented and discussed.	Hardly at all	To a very high degree	n=3	av.=4.67 md=5.00 dev.=0.58
3.8)	Stated objectives agreed with what was taught.	Hardly at all	To a very high degree	n=3	av.=5.00 md=5.00 dev.=0.00
3.9)	Course made a worthwhile contribution to my professional development.	Hardly at all	To a very high degree	n=3	av.=5.00 md=5.00 dev.=0.00
3.10)	Assigned work was appropriate to course level and credits.	Hardly at all	To a very high degree	n=3	av.=4.67 md=5.00 dev.=0.58

3.11)	Course content reflected recent developments in the field.	Hardly at all	To a very high degree	n=3 av.=5.00 md=5.00 dev.=0.00
3.12)	Course content duplicated that of other courses I have taken.	Hardly at all	To a very high degree	n=3 av.=2.00 md=1.00 dev.=1.73
3.24)	Guest lecturers avoided repetition of course material.	Hardly at all	To a very high degree	n=3 av.=5.00 md=5.00 dev.=0.00
3.25)	There was continuity in content from one lecturer to the next.	Hardly at all	To a very high degree	n=3 av.=5.00 md=5.00 dev.=0.00
3.26)	The team-teaching approach provided insights a single instructor could not provide.	Hardly at all	To a very high degree	n=1 av.=5.00 md=5.00 dev.=0.00
3.27)	Team-teaching was used effectively in this course.	Hardly at all	To a very high degree	n=1 av.=5.00 md=5.00 dev.=0.00

University of Pittsburgh
Office of Measurement and Evaluation of Teaching

Dear Professor Ryan Minster:

Student Opinion of Teaching Questionnaire Results

This form contains survey results for Instructor profile.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item (14 x .50 = 7). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

Office of Measurement and Evaluation of Teaching (OMET)

Professor Ryan Minster

Instructor profile
2167_12WK
6 RESPONDENTS = % OF NUMBER REGISTERED

1. SELF RATINGS

1.1) Amount that you learned from this instructor.

Much less — Much more

1	2	3	4	5
0%	0%	0%	40%	60%

n=5
av.=4.6
dev.=0.55

1.2) Amount this instructor increased your interest in the subject.

Much less — Much more

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

2. TEACHING EVALUATION

2.1) The instructor explained subject matter in a way that made it understandable.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	40%	60%

n=5
av.=4.6
dev.=0.55

2.2) The instructor made good use of examples to clarify concepts.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

2.3) The instructor conveyed his/her knowledge of subject.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

2.4) The instructor maintained an environment where students felt comfortable asking questions.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

2.5) The instructor generated interest in the subject.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	0%	100%

n=5
av.=5
dev.=0

2.6) The instructor presented course content in an organized manner.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	40%	60%

n=5
av.=4.6
dev.=0.55

2.7) The instructor included worthwhile information in class that was not duplicated in course materials.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

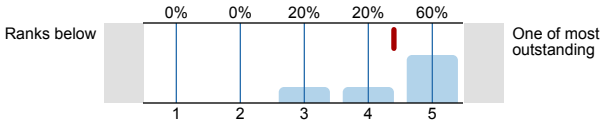
2.8) The instructor stimulated a desire to learn more about this subject.

Ranks below — One of most outstanding

1	2	3	4	5
0%	0%	0%	20%	80%

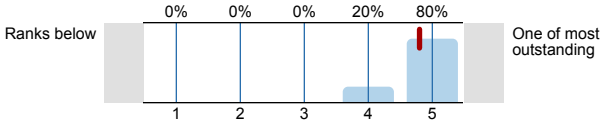
n=5
av.=4.8
dev.=0.45

2.9) The instructor provided useful feedback.



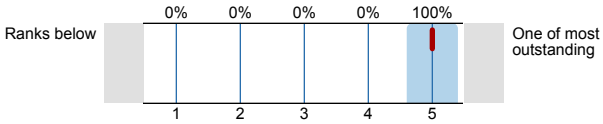
n=5
av.=4.4
dev.=0.89

2.10) The instructor encouraged independent thinking.



n=5
av.=4.8
dev.=0.45

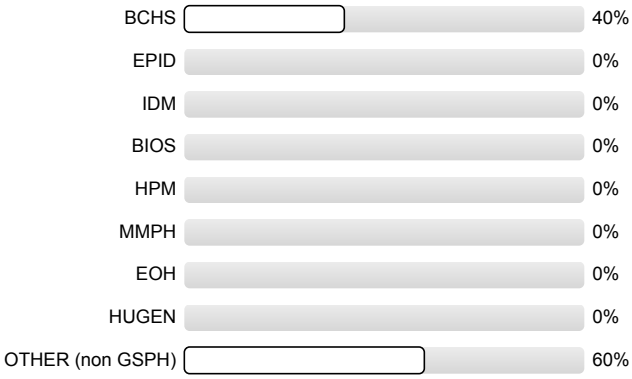
2.11) Express your judgment of the instructor's **overall teaching effectiveness.**



n=5
av.=5
dev.=0

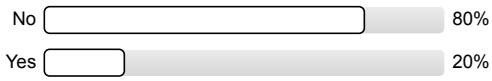
3. COURSE EVALUATION

3.1) Department in which you are enrolled:



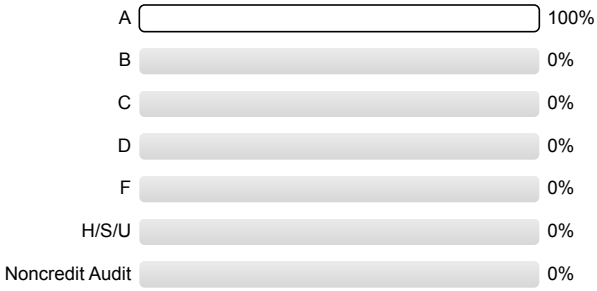
n=5

3.2) I am taking this course as an elective.



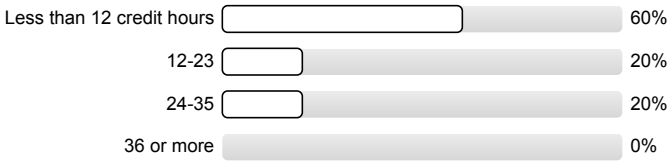
n=5

3.3) Grade you expect in this course (PLEASE MARK ONLY ONE CATEGORY)



n=5

3.4) Credit hours of coursework you have completed in GSPH:



n=5

3.5) When did you receive your bachelor's degree?

n=4

Less than 5 years ago	75%
5-9 years ago	0%
10-14 years ago	0%
15 or more years ago	25%

3.6) Amount that I learned in this course.

n=5

Much less than in most courses I've taken	0%
Somewhat less	0%
About the same	0%
Somewhat more	100%
Much more	0%

3.7) Course objectives were presented and discussed.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	60%	40%

n=5
av.=4.4
dev.=0.55

3.8) Stated objectives agreed with what was taught.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

3.9) Course made a worthwhile contribution to my professional development.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	16.7%	83.3%

n=6
av.=4.83
dev.=0.41

3.10) Assigned work was appropriate to course level and credits.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	20%	80%

n=5
av.=4.8
dev.=0.45

3.11) Course content reflected recent developments in the field.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	0%	0%	100%

n=5
av.=5
dev.=0

3.12) Course content duplicated that of other courses I have taken.

Hardly at all — To a very high degree

1	2	3	4	5
20%	20%	0%	40%	20%

n=5
av.=3.2
dev.=1.64

3.13) Would you recommend this course to other students?

n=5

Definitely not	0%
Probably not	0%
Probably yes	20%
Definitely yes	80%

3.14) Lectures

n=5

Very little	0%
Moderate amount	0%
Very much	100%
Does not apply	0%

3.15) Discussions

n=5

Very little	20%
Moderate amount	80%
Very much	0%
Does not apply	0%

3.16) Readings

n=5

Very little	0%
Moderate amount	60%
Very much	40%
Does not apply	0%

3.17) Assignments

n=5

Very little	0%
Moderate amount	40%
Very much	40%
Does not apply	20%

3.18) Exams

n=5

Very little	20%
Moderate amount	20%
Very much	40%
Does not apply	20%

3.19) Projects

n=4

Very little	25%
Moderate amount	0%
Very much	50%
Does not apply	25%

3.20) Written papers

n=4

Very little	0%
Moderate amount	0%
Very much	50%
Does not apply	50%

3.21) Handouts

n=4

Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.22) Classroom activities

n=5

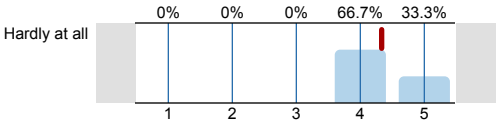
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.23) Lab/Recitation

n=5

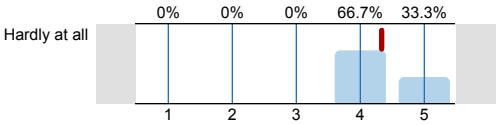
Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.24) Guest lecturers avoided repetition of course material.



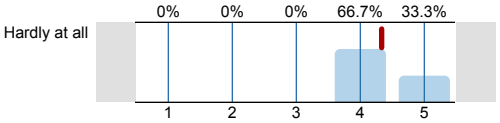
n=3
av.=4.33
dev.=0.58

3.25) There was continuity in content from one lecturer to the next.



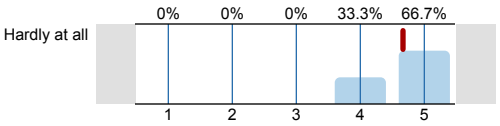
n=3
av.=4.33
dev.=0.58

3.26) The team-teaching approach provided insights a single instructor could not provide.



n=3
av.=4.33
dev.=0.58

3.27) Team-teaching was used effectively in this course.



n=3
av.=4.67
dev.=0.58

Profile

Compilation: Instructor profile

Values used in the profile line: Mean

1. SELF RATINGS

1.1)	Amount that you learned from this instructor.	Much less	Much more	n=5	av.=4.60 md=5.00 dev.=0.55
1.2)	Amount this instructor increased your interest in the subject.	Much less	Much more	n=5	av.=4.80 md=5.00 dev.=0.45

2. TEACHING EVALUATION

2.1)	The instructor explained subject matter in a way that made it understandable.	Ranks below	One of most outstanding	n=5	av.=4.60 md=5.00 dev.=0.55
2.2)	The instructor made good use of examples to clarify concepts.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.3)	The instructor conveyed his/her knowledge of subject.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.4)	The instructor maintained an environment where students felt comfortable asking questions.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.5)	The instructor generated interest in the subject.	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00
2.6)	The instructor presented course content in an organized manner.	Ranks below	One of most outstanding	n=5	av.=4.60 md=5.00 dev.=0.55
2.7)	The instructor included worthwhile information in class that was not duplicated in course materials.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.8)	The instructor stimulated a desire to learn more about this subject.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.9)	The instructor provided useful feedback.	Ranks below	One of most outstanding	n=5	av.=4.40 md=5.00 dev.=0.89
2.10)	The instructor encouraged independent thinking.	Ranks below	One of most outstanding	n=5	av.=4.80 md=5.00 dev.=0.45
2.11)	Express your judgment of the instructor's **overall teaching effectiveness.**	Ranks below	One of most outstanding	n=5	av.=5.00 md=5.00 dev.=0.00

3. COURSE EVALUATION

3.7)	Course objectives were presented and discussed.	Hardly at all	To a very high degree	n=5	av.=4.40 md=4.00 dev.=0.55
3.8)	Stated objectives agreed with what was taught.	Hardly at all	To a very high degree	n=5	av.=4.80 md=5.00 dev.=0.45
3.9)	Course made a worthwhile contribution to my professional development.	Hardly at all	To a very high degree	n=6	av.=4.83 md=5.00 dev.=0.41
3.10)	Assigned work was appropriate to course level and credits.	Hardly at all	To a very high degree	n=5	av.=4.80 md=5.00 dev.=0.45
3.11)	Course content reflected recent developments in the field.	Hardly at all	To a very high degree	n=5	av.=5.00 md=5.00 dev.=0.00

3.12)	Course content duplicated that of other courses I have taken.	Hardly at all — To a very high degree	n=5	av.=3.20 md=4.00 dev.=1.64
3.24)	Guest lecturers avoided repetition of course material.	Hardly at all — To a very high degree	n=3	av.=4.33 md=4.00 dev.=0.58
3.25)	There was continuity in content from one lecturer to the next.	Hardly at all — To a very high degree	n=3	av.=4.33 md=4.00 dev.=0.58
3.26)	The team-teaching approach provided insights a single instructor could not provide.	Hardly at all — To a very high degree	n=3	av.=4.33 md=4.00 dev.=0.58
3.27)	Team-teaching was used effectively in this course.	Hardly at all — To a very high degree	n=3	av.=4.67 md=5.00 dev.=0.58

University of Pittsburgh
Office of Measurement and Evaluation of Teaching

Dear Professor Elizabeth Bjerke:

Student Opinion of Teaching Questionnaire Results

This form contains survey results for CAPSTONE:PROBLEM SOLVING IN PH(PUBHLT-2016)-1150.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item (14 x .50 = 7). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

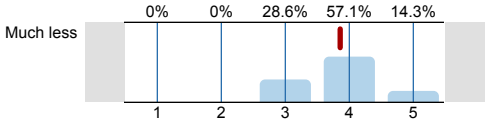
Office of Measurement and Evaluation of Teaching (OMET)

Professor Elizabeth Bjerke

CAPSTONE:PROBLEM SOLVING IN PH(PUBHLT-2016)-11502167_UPITT_PUBHLT_2016_SEC1150 2167_6WK1
7 RESPONDENTS = 70% OF NUMBER REGISTERED

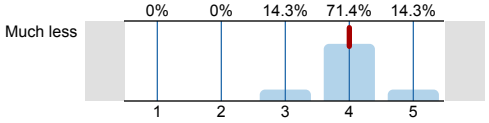
1. SELF RATINGS

1.1) Amount that you learned from this instructor.



n=7
av.=3.86
dev.=0.69

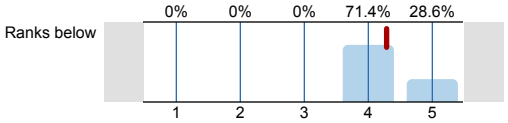
1.2) Amount this instructor increased your interest in the subject.



n=7
av.=4
dev.=0.58

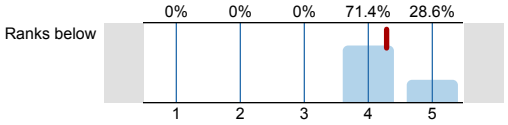
2. TEACHING EVALUATION

2.1) The instructor explained subject matter in a way that made it understandable.



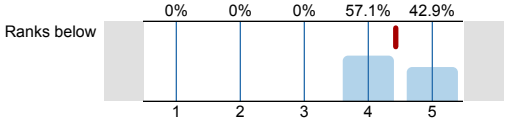
n=7
av.=4.29
dev.=0.49

2.2) The instructor made good use of examples to clarify concepts.



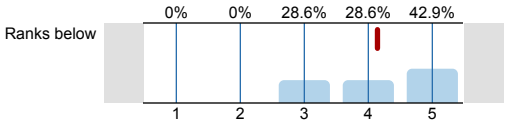
n=7
av.=4.29
dev.=0.49

2.3) The instructor conveyed his/her knowledge of subject.



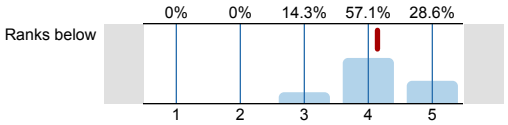
n=7
av.=4.43
dev.=0.53

2.4) The instructor maintained an environment where students felt comfortable asking questions.



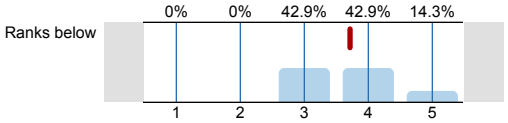
n=7
av.=4.14
dev.=0.9

2.5) The instructor generated interest in the subject.



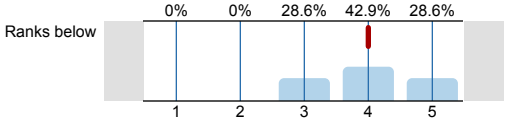
n=7
av.=4.14
dev.=0.69

2.6) The instructor presented course content in an organized manner.



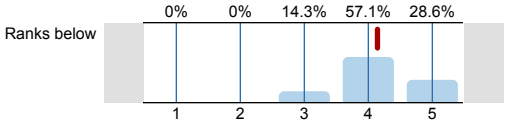
n=7
av.=3.71
dev.=0.76

2.7) The instructor included worthwhile information in class that was not duplicated in course materials.



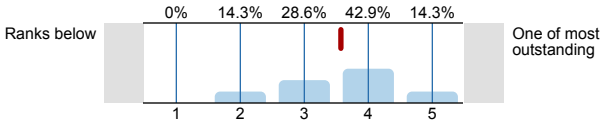
n=7
av.=4
dev.=0.82

2.8) The instructor stimulated a desire to learn more about this subject.



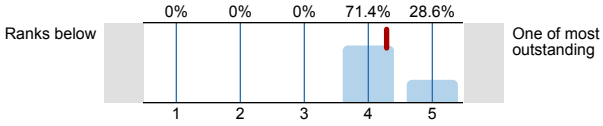
n=7
av.=4.14
dev.=0.69

2.9) The instructor provided useful feedback.



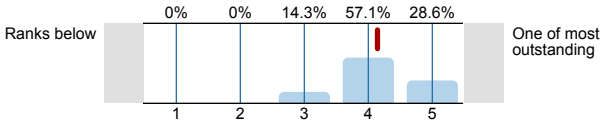
n=7
av.=3.57
dev.=0.98

2.10) The instructor encouraged independent thinking.



n=7
av.=4.29
dev.=0.49

2.11) Express your judgment of the instructor's **overall teaching effectiveness.**



n=7
av.=4.14
dev.=0.69

3. COURSE EVALUATION

3.1) Department in which you are enrolled:

n=7

BCHS	28.6%
EPID	0%
IDM	14.3%
BIOS	0%
HPM	28.6%
MMPH	28.6%
EOH	0%
HUGEN	0%
OTHER (non GSPH)	0%

3.2) I am taking this course as an elective.

n=7

No	100%
Yes	0%

3.3) Grade you expect in this course (PLEASE MARK ONLY ONE CATEGORY)

n=7

A	100%
B	0%
C	0%
D	0%
F	0%
H/S/U	0%
Noncredit Audit	0%

3.4) Credit hours of coursework you have completed in GSPH:

n=7

Less than 12 credit hours	0%
12-23	14.3%
24-35	57.1%
36 or more	28.6%

3.5) When did you receive your bachelor's degree?

n=7

Less than 5 years ago	42.9%
5-9 years ago	28.6%
10-14 years ago	14.3%
15 or more years ago	14.3%

3.6) Amount that I learned in this course.

n=6

Much less than in most courses I've taken	0%
Somewhat less	16.7%
About the same	66.7%
Somewhat more	16.7%
Much more	0%

3.7) Course objectives were presented and discussed.

Hardly at all — To a very high degree

1	2	3	4	5
0%	14.3%	42.9%	28.6%	14.3%

n=7
av.=3.43
dev.=0.98

3.8) Stated objectives agreed with what was taught.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	71.4%	14.3%	14.3%

n=7
av.=3.43
dev.=0.79

3.9) Course made a worthwhile contribution to my professional development.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	57.1%	28.6%	14.3%

n=7
av.=3.57
dev.=0.79

3.10) Assigned work was appropriate to course level and credits.

Hardly at all — To a very high degree

1	2	3	4	5
0%	57.1%	14.3%	14.3%	14.3%

n=7
av.=2.86
dev.=1.21

3.11) Course content reflected recent developments in the field.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	28.6%	42.9%	28.6%

n=7
av.=4
dev.=0.82

3.12) Course content duplicated that of other courses I have taken.

Hardly at all — To a very high degree

1	2	3	4	5
14.3%	42.9%	28.6%	14.3%	0%

n=7
av.=2.43
dev.=0.98

3.13) Would you recommend this course to other students?

n=7

Definitely not	0%
Probably not	28.6%
Probably yes	57.1%
Definitely yes	14.3%

3.14) Lectures

n=7

Very little	14.3%
Moderate amount	28.6%
Very much	57.1%
Does not apply	0%

3.15) Discussions

n=7

Very little	0%
Moderate amount	14.3%
Very much	85.7%
Does not apply	0%

3.16) Readings

n=7

Very little	42.9%
Moderate amount	28.6%
Very much	28.6%
Does not apply	0%

3.17) Assignments

n=7

Very little	0%
Moderate amount	71.4%
Very much	28.6%
Does not apply	0%

3.18) Exams

n=7

Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.19) Projects

n=7

Very little	28.6%
Moderate amount	42.9%
Very much	28.6%
Does not apply	0%

3.20) Written papers

n=7

Very little	0%
Moderate amount	14.3%
Very much	14.3%
Does not apply	71.4%

3.21) Handouts

n=7

Very little	0%
Moderate amount	42.9%
Very much	42.9%
Does not apply	14.3%

3.22) Classroom activities

n=7

Very little	0%
Moderate amount	57.1%
Very much	42.9%
Does not apply	0%

3.23) Lab/Recitation

n=7

Very little	0%
Moderate amount	0%
Very much	0%
Does not apply	100%

3.24) Guest lecturers avoided repetition of course material.

Hardly at all — To a very high degree

1	2	3	4	5
14.3%	0%	14.3%	42.9%	28.6%

n=7
av.=3.71
dev.=1.38

3.25) There was continuity in content from one lecturer to the next.

Hardly at all — To a very high degree

1	2	3	4	5
14.3%	28.6%	28.6%	14.3%	14.3%

n=7
av.=2.86
dev.=1.35

3.26) The team-teaching approach provided insights a single instructor could not provide.

Hardly at all — To a very high degree

1	2	3	4	5
0%	0%	28.6%	14.3%	57.1%

n=7
av.=4.29
dev.=0.95

3.27) Team-teaching was used effectively in this course.

Hardly at all — To a very high degree

1	2	3	4	5
0%	14.3%	57.1%	14.3%	14.3%

n=7
av.=3.29
dev.=0.95

Profile

Subunit:	PUBLIC HEALTH
Name of the instructor:	Professor Elizabeth Bjerke,
Name of the course: (Name of the survey)	CAPSTONE:PROBLEM SOLVING IN PH(PUBHLT-2016)-1150 (2167_UPITT_PUBHLT_2016_SEC1150)

Values used in the profile line: Mean

1. SELF RATINGS

1.1)	Amount that you learned from this instructor.	Much less	Much more	n=7	av.=3.86 md=4.00 dev.=0.69
1.2)	Amount this instructor increased your interest in the subject.	Much less	Much more	n=7	av.=4.00 md=4.00 dev.=0.58

2. TEACHING EVALUATION

2.1)	The instructor explained subject matter in a way that made it understandable.	Ranks below	One of most outstanding	n=7	av.=4.29 md=4.00 dev.=0.49
2.2)	The instructor made good use of examples to clarify concepts.	Ranks below	One of most outstanding	n=7	av.=4.29 md=4.00 dev.=0.49
2.3)	The instructor conveyed his/her knowledge of subject.	Ranks below	One of most outstanding	n=7	av.=4.43 md=4.00 dev.=0.53
2.4)	The instructor maintained an environment where students felt comfortable asking questions.	Ranks below	One of most outstanding	n=7	av.=4.14 md=4.00 dev.=0.90
2.5)	The instructor generated interest in the subject.	Ranks below	One of most outstanding	n=7	av.=4.14 md=4.00 dev.=0.69
2.6)	The instructor presented course content in an organized manner.	Ranks below	One of most outstanding	n=7	av.=3.71 md=4.00 dev.=0.76
2.7)	The instructor included worthwhile information in class that was not duplicated in course materials.	Ranks below	One of most outstanding	n=7	av.=4.00 md=4.00 dev.=0.82
2.8)	The instructor stimulated a desire to learn more about this subject.	Ranks below	One of most outstanding	n=7	av.=4.14 md=4.00 dev.=0.69
2.9)	The instructor provided useful feedback.	Ranks below	One of most outstanding	n=7	av.=3.57 md=4.00 dev.=0.98
2.10)	The instructor encouraged independent thinking.	Ranks below	One of most outstanding	n=7	av.=4.29 md=4.00 dev.=0.49
2.11)	Express your judgment of the instructor's **overall teaching effectiveness.**	Ranks below	One of most outstanding	n=7	av.=4.14 md=4.00 dev.=0.69

3. COURSE EVALUATION

3.7)	Course objectives were presented and discussed.	Hardly at all	To a very high degree	n=7	av.=3.43 md=3.00 dev.=0.98
3.8)	Stated objectives agreed with what was taught.	Hardly at all	To a very high degree	n=7	av.=3.43 md=3.00 dev.=0.79
3.9)	Course made a worthwhile contribution to my professional development.	Hardly at all	To a very high degree	n=7	av.=3.57 md=3.00 dev.=0.79
3.10)	Assigned work was appropriate to course level and credits.	Hardly at all	To a very high degree	n=7	av.=2.86 md=2.00 dev.=1.21

3.11)	Course content reflected recent developments in the field.	Hardly at all	To a very high degree	n=7 av.=4.00 md=4.00 dev.=0.82
3.12)	Course content duplicated that of other courses I have taken.	Hardly at all	To a very high degree	n=7 av.=2.43 md=2.00 dev.=0.98
3.24)	Guest lecturers avoided repetition of course material.	Hardly at all	To a very high degree	n=7 av.=3.71 md=4.00 dev.=1.38
3.25)	There was continuity in content from one lecturer to the next.	Hardly at all	To a very high degree	n=7 av.=2.86 md=3.00 dev.=1.35
3.26)	The team-teaching approach provided insights a single instructor could not provide.	Hardly at all	To a very high degree	n=7 av.=4.29 md=5.00 dev.=0.95
3.27)	Team-teaching was used effectively in this course.	Hardly at all	To a very high degree	n=7 av.=3.29 md=3.00 dev.=0.95

University of Pittsburgh
Office of Measurement and Evaluation of Teaching

Dear Professor Ryan Minster:

Student Opinion of Teaching Questionnaire Results

This form contains survey results for Instructor profile.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item (14 x .50 = 7). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

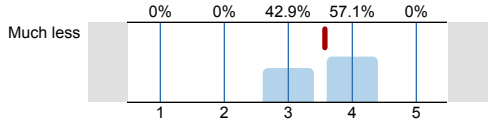
Office of Measurement and Evaluation of Teaching (OMET)

Professor Ryan Minster

Instructor profile
2167_6WK1
7 RESPONDENTS = % OF NUMBER REGISTERED

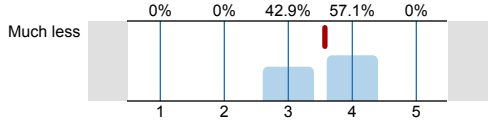
1. SELF RATINGS

1.1) Amount that you learned from this instructor.



n=7
av.=3.57
dev.=0.53

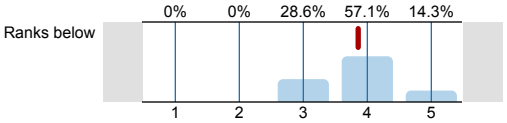
1.2) Amount this instructor increased your interest in the subject.



n=7
av.=3.57
dev.=0.53

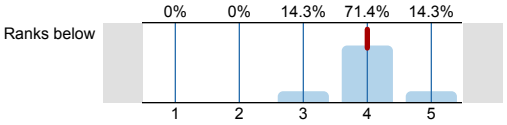
2. TEACHING EVALUATION

2.1) The instructor explained subject matter in a way that made it understandable.



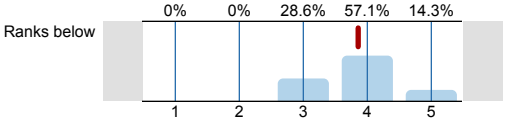
n=7
av.=3.86
dev.=0.69

2.2) The instructor made good use of examples to clarify concepts.



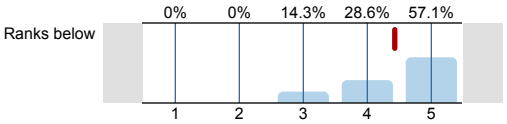
n=7
av.=4
dev.=0.58

2.3) The instructor conveyed his/her knowledge of subject.



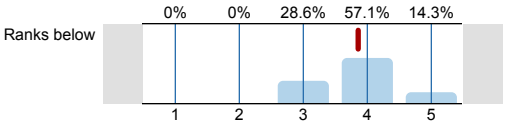
n=7
av.=3.86
dev.=0.69

2.4) The instructor maintained an environment where students felt comfortable asking questions.



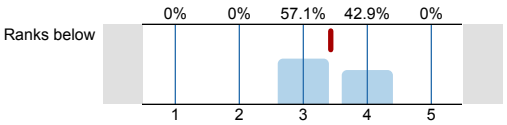
n=7
av.=4.43
dev.=0.79

2.5) The instructor generated interest in the subject.



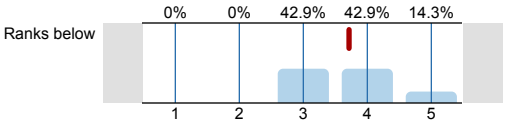
n=7
av.=3.86
dev.=0.69

2.6) The instructor presented course content in an organized manner.



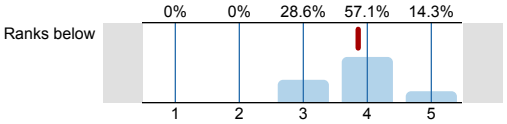
n=7
av.=3.43
dev.=0.53

2.7) The instructor included worthwhile information in class that was not duplicated in course materials.



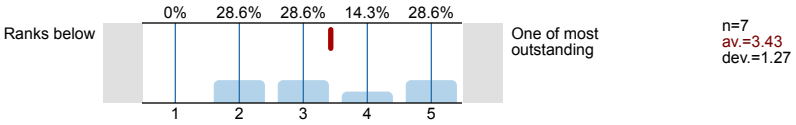
n=7
av.=3.71
dev.=0.76

2.8) The instructor stimulated a desire to learn more about this subject.

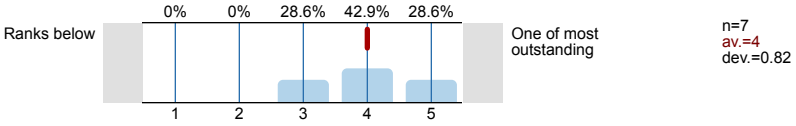


n=7
av.=3.86
dev.=0.69

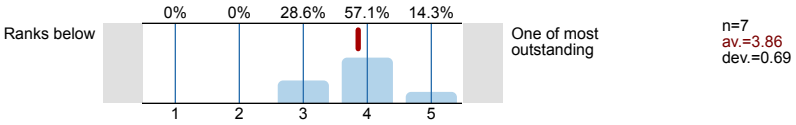
2.9) The instructor provided useful feedback.



2.10) The instructor encouraged independent thinking.



2.11) Express your judgment of the instructor's **overall teaching effectiveness.**



Profile

Compilation: Instructor profile

Values used in the profile line: Mean

1. SELF RATINGS

1.1)	Amount that you learned from this instructor.	Much less	Much more	n=7	av.=3.57 md=4.00 dev.=0.53
1.2)	Amount this instructor increased your interest in the subject.	Much less	Much more	n=7	av.=3.57 md=4.00 dev.=0.53

2. TEACHING EVALUATION

2.1)	The instructor explained subject matter in a way that made it understandable.	Ranks below	One of most outstanding	n=7	av.=3.86 md=4.00 dev.=0.69
2.2)	The instructor made good use of examples to clarify concepts.	Ranks below	One of most outstanding	n=7	av.=4.00 md=4.00 dev.=0.58
2.3)	The instructor conveyed his/her knowledge of subject.	Ranks below	One of most outstanding	n=7	av.=3.86 md=4.00 dev.=0.69
2.4)	The instructor maintained an environment where students felt comfortable asking questions.	Ranks below	One of most outstanding	n=7	av.=4.43 md=5.00 dev.=0.79
2.5)	The instructor generated interest in the subject.	Ranks below	One of most outstanding	n=7	av.=3.86 md=4.00 dev.=0.69
2.6)	The instructor presented course content in an organized manner.	Ranks below	One of most outstanding	n=7	av.=3.43 md=3.00 dev.=0.53
2.7)	The instructor included worthwhile information in class that was not duplicated in course materials.	Ranks below	One of most outstanding	n=7	av.=3.71 md=4.00 dev.=0.76
2.8)	The instructor stimulated a desire to learn more about this subject.	Ranks below	One of most outstanding	n=7	av.=3.86 md=4.00 dev.=0.69
2.9)	The instructor provided useful feedback.	Ranks below	One of most outstanding	n=7	av.=3.43 md=3.00 dev.=1.27
2.10)	The instructor encouraged independent thinking.	Ranks below	One of most outstanding	n=7	av.=4.00 md=4.00 dev.=0.82
2.11)	Express your judgment of the instructor's **overall teaching effectiveness.**	Ranks below	One of most outstanding	n=7	av.=3.86 md=4.00 dev.=0.69

GSPH School-wide OMET Course Questions | Starting Fall 2016 Semester

Finalized: September 2016

[Beginning at Section 3 of Current OMET Course Evaluation]

3.2	I am taking this courses as an elective.
3.6	Amount I learned in this course [*Note*: scale should be about the course only]
3.7	Course objectives were presented (<u>Scale</u>: *Hardly at all → To a very high degree*)
3.8	Stated objectives agreed with what was taught (<u>Scale</u>: *Hardly at all → To a very high degree*)
3.9	Course made a worthwhile contribution to my professional development (<u>Scale</u>: *Hardly at all → To a very high degree*)
3.10	Assigned work was appropriate to credits (<u>Scale</u>: *Hardly at all → To a very high degree*)
3.11	Course content reflected recent developments in the field (<u>Scale</u>: *Hardly at all → To a very high degree*)
3.12	Course content duplicated that of other courses I have taken (Scale: *Hardly at all → To a very high degree*)
3.13	Would you recommend this course to other students? (<u>Scale</u>: *Hardly at all → To a very high degree*)

Rate each of the following according to how much it contributed to your attainment of the course objectives

Scale: Very little, Moderate amount, Very much, Not applicable (N/A)

3.14	Lectures
3.15	Discussions
3.16	Readings
Add	Audio-visuals
Combine 3.17-3.20	Assignments (to include: exams, projects, and written papers)

3.22	Classroom activities
3.23	Lab/recitation
Add	Were there guest lectures and/or multiple instructors in this course? If yes next question to be asked.
Add	Were the guest lectures and/ or multiple instructors used effectively? (Scale: *Hardly at all → To a very high degree*)
4.1	In future offerings of this course, what do you feel should be added or given more time or emphasis? Feel free to suggest ideas which you think would improve the course.
Add	What improvements could be made to the course? (What could be added? What could be deleted? Do you have any other suggestions?)