

Graduate School of Public Health
Educational Policies and Curriculum Committee
November 7, 2019
1:30-3:30pm
1149 Public Health

1. Course Modification: BCHS 3503 *Implementation Science in Public Health*, Robert Coulter and Kelly Gagnon (at 1:30pm)
2. HUGEN Re-Structuring Courses, Candy Kammerer (at 1:45pm)
Meeting Documents Contain:
 - cover memo,
 - HUGEN 2060 *Chromosomes – Structure & Function*,
 - HUGEN 2061 *Cancer Genetic Counseling*
 - HUGEN 20XX *Genetics of Complex Diseases II*,
 - HUGEN 2090 *Genetics of Complex Diseases I*,
3. PhD Area of Concentration (AOC): Public Health Practice, Jim Peterson (at 2:15pm)
4. Continued GRE Discussion: Post Faculty Retreat Presentation & Discussions, All
5. Syllabi Collection & Process by Departments, Jessica Burke and Robin Leaf
6. Approval of October Meeting Minutes, All
7. Schedule Spring Term Meetings, All

Upcoming Meeting(s):
December 5, 2019 – 1:30-3:30 p.m. (1149 Public Health)

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(Revised: 6/7/2018)

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):

- | | |
|--|---|
| <input type="checkbox"/> New course, not previously approved | <input type="checkbox"/> Course modification (major) [†] |
| <input type="checkbox"/> Course title change | <input type="checkbox"/> Special topics course content |
| <input type="checkbox"/> Cross-listing | <input type="checkbox"/> Pitt Public Health Core Course |
| (Specify academic unit & course number): _____ | <input type="checkbox"/> Practicum, internship, field placement |

3. Course designation:

Course Number _____ Title _____ Credits _____

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.

5. Reason for request:

In a few sentences, describe the motivation behind this application.

[†] Changes to credits will require a new course number and significant title changes may require a new course number

6. **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:

b. Co-instructors (if any):

7. **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.).

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

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

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

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.

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

a. Number of course hours per session ____ Sessions per week ____ Weeks per academic term ____

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

Lectures ____ Seminars ____ Recitations ____ Field work ____ Laboratory ____
Other (specify): _____

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

10. **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.

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

11. **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:

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)

12. **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.

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

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

Name/Title: _____

Date: _____

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

Name/Title: _____

Date: _____

15. (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	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Course Title*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Course Meeting Time/Day of Week*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Classroom Location*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Faculty Information	Office Location*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Office Hours*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Phone Number*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Email Address*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Teaching Philosophy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Teaching Assistant Contact	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Student Expectations in Classroom	Behavior/ Ground Rules (cell phones off, laptops off, etc.)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Recording of Lectures	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
Course Summary	Course Description*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Learning Objectives*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Materials	Required Textbooks/ Articles/Readings	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Required Software	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
	Required Equipment (including use of CourseWeb/Blackboard)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Recommended Material	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
	Availability of Software for Purchase and/or Use	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>

Evaluation	Grading Scale*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Grading Criteria/Rubric	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Late Assignment Policy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
Accommodation of Students with Disabilities	University Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Academic Integrity Policy	Pitt Public Health Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Diversity/ Inclusion Statement	Pitt Public Health Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Title IX Statement	University Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Schedule	Topics by Session*	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Reading and Written Assignments by Session*	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Learning Objectives by Session	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Test Dates	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
Additional Resources	Health Sciences Library Liaison Contact Information	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Writing Center Contact (if course is writing intensive)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>

Required Information Not Included

List the Required Detail Not Included	Reason for Not Including
Topics by Session	This can change over time -- we share it in a Google doc to students via Courseweb. https://docs.google.com/spreadsheets/d/1LmC0FEyr3OCqZKTP723_ufiWxYi9ESuR2jA_gotZK1g/edit?usp=sharing
Reading and Written Assignments by Session	All of this information is provided very clearly in coursweb and revealed the week before each class.

Implementation Science in Public Health
Behavioral and Community Health Sciences, Graduate School of Public Health
University of Pittsburgh
BCHS 3503 – 3 Credits – Fall Term 2019

Instructor

Robert W.S. Coulter, PhD, MPH
Primary Instructor
6129 Public Health Building
130 De Soto Street, Pittsburgh, PA 15261
+1.412.624.0647 | Pronouns: he, him, his
Robert.ws.coulter@pitt.edu

Kelly Gagnon, MPH
Graduate Student Instructor
Pronouns: she, her, hers
Keg118@pitt.edu

Office Hours

By Request via Email

Class Location and Time

A215 Crabtree Hall on Fridays from 1:00-3:55pm from August 30 through December 13.
No class on November 29 (Thanksgiving recess).

Course Description

The purpose of this course is to prepare students with the knowledge and skills to conduct implementation science within the field of public health. Although evidence-based interventions are widely available, they are underutilized to address a wide variety of public health challenges. We will examine barriers that exist with respect to the implementation of evidence-based interventions (EBIs) and strategies to overcome these barriers. Specific topics include strategies to identify EBIs, assessing and strengthening organizations' and communities' readiness to utilize EBIs, dissemination and scaling up, cultural adaptation of EBIs, and implementation science theories and conceptual frameworks.

CEPH DrPH Competency

This course addresses one CEPH DrPH foundational competency (ceph.org/assets/2016.Criteria.pdf):
#6. Integrate knowledge, approaches, methods, values, and potential contributions from multiple professions and systems in addressing public health problems

Course Learning Objectives

Upon completion of this course, you will be able to:

- Define and summarize the different stages of translation science and how they fit within the field of prevention science;
- Defend which stage of translation science research is at for public health problems and solutions; Search for, identify, and select evidence-based interventions for public health problems;
- Generate research questions that can be answered via implementation science research;
- Compare and contrast implementation science theories and conceptual frameworks;
- Apply implementation science theories and conceptual frameworks to better understand dissemination and implementation of public health solutions;

- Discuss how factors at multiple levels of the social ecological model serve as barriers or facilitators in translation;
- Discuss how social determinants of health (e.g., gender, sexual orientation, race/ethnicity, disability, socioeconomic status) impact translation;
- Explain and evaluate the need for adapting evidence-based interventions to meet the needs of a target population or context;
- Evaluate the capacity of individuals, organizations, and communities to adopt, adapt, and implement evidence-based interventions; and
- Debate and summarize ethical issues in implementation science research.

Required Texts

All readings and information on homework will be posted on CourseWeb (Blackboard), which can be accessed through MyPitt.edu. Check regularly as information will be updated throughout the semester.

Student Performance Evaluation

Grades will be based on points accumulated for snapshot lectures, discussion questions and facilitation, participation, and paper assignments. Total points earned will be based on the following:

<u>Component</u>	<u>Percent</u>
Snapshot Lectures	15%
Discussion Questions and Facilitation	10%
Participation	15%
Paper #1	15%
Paper #2	20%
Paper #3	25%
Total	100%

Points acquired will be cumulative and will translate into a letter grade. Please Note: All requirements must be met by the last day of the class. After that date no student will be eligible for a grade higher than a B.

Grading Scale

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

Note: Grades are lowered for late work, unless due to health problem or emergency.

Snapshot Lectures

Content. Students are responsible for preparing snapshot lectures on specific topics or readings that integrate knowledge, approaches, methods, values, and potential contributions from multiple professions and systems in addressing public health problems. Importantly, each snapshot lecture will only last a short amount of time, ranging from 2 to 5 minutes. On CourseWeb, the allotted time will be specified for each assigned snapshot lecture. The instructors will cut students off once the allotted time is completed, even if the student is not finished. PowerPoint is NOT allowed. The instructors will demonstrate an example snapshot lecture prior to students having to provide their own snapshot lectures. Other students will be expected to respond or elaborate on their peers’ snapshot lectures. Students will be completing more than 1 snapshot lecture throughout the semester, so be prepared!

Timing. Snapshot lectures will be dispersed throughout the course. All students will be expected to prepare all snapshot lectures. During class, the instructors will call on different students to provide each snapshot lecture. Students will not know who is going to be called on prior to class; therefore, all students must prepare all snapshot lectures, so be prepared!

Grading. Each snapshot lecture provided by a student will be assigned a score of 0, 2, or 4. A score of 0 indicates the student fails to do the snapshot lecture or was unprepared. A score of 2 indicates that the student covered major points but missed something important. A score of 4 indicates that the student covered major points and was accurate.

Discussion Questions and Facilitation

Content. On CourseWeb, students are responsible for submitting 1-10 discussion questions before 9 PM on the Thursday preceding class. These questions will be for specific topics and readings that integrate knowledge, approaches, methods, values, and potential contributions from multiple professions and systems in addressing public health problems. The number of required discussion questions will be specified for each topic or reading on CourseWeb. In class, students are responsible for facilitating a discussion lasting 30-35 minutes. Students are responsible for closing the discussion at the end of 35 minutes using appropriate facilitation methods. Students are responsible for preparing follow-up question prompts and the answers to their discussion questions (but they do not have to turn them in), so that they can properly facilitate the discussion in class. Students will be facilitating at least 1 in-class discussion throughout the semester, so be prepared!

Timing. Discussion questions and facilitations will be dispersed throughout the course. For assigned discussion questions, all students will be expected to submit their discussion questions by the due date identified on CourseWeb. In class, the instructors will call on different students to facilitate each discussion using their questions. The instructors will describe and demonstrate good discussion questions and discussion facilitation prior to students having to submit and facilitate their own. Students will not know who is going to be called on prior to class; therefore, all students must prepare to facilitate a discussion, so be prepared!

Grading. Discussion questions will be assigned a score of 0, 1, or 2. A score of 0 indicates the student fails to submit the total number of discussion questions or it is evident that they did not read the material. A score of 1 indicates that they used mostly open-ended questions and asked classmates to elaborate on responses to closed-ended questions, failed to structure the questions like a discussion, and missed important aspects of the material. A score of 2 indicates that they used open-ended questions, structured the questions like a discussion, and covered important aspects of the material. Discussion facilitation will be assigned a score of 0, 4, or 8. A score of 0 indicates the student fails to facilitate a discussion or was unprepared. A score of 4 indicates that they facilitated a discussion but fails to address one of the following: listens to their peers' responses; demonstrates understanding of the content and their peers' responses by making thoughtful comments which build or sustain the discussion; and remains respectful throughout. A score of 8 indicates that they listen to their peers' responses, demonstrate understanding of the content and their peers' responses by making thoughtful comments which build or sustain the discussion, and remain respectful throughout.

Participation

Classroom Format: At the start of every class, students are to arrange the desks in a V or U shape to encourage active participation. Students are to return their desks to their original places at the end of class.

Content: In class, students are responsible for participating in every class. Students are expected to: respond to their peers' snapshot lectures and discussion questions; ask questions of guest lecturers; and participate in class activities.

Timing: Students are responsible for arriving on time for and participating in every class.

Grading: For each class, each student's participation will be assigned a score of 0 or 5. A score of 0 indicates the student barely participated or was unprepared. A score of 5 indicates that the student was

actively engaged and respectful in all classroom activities. Student's lowest grade will be dropped. Approximately halfway through the class I will give you your interim participation score with one way to improve your participation.

Guest Lectures: During guest lectures, students are required to be active participants by responding to presentation prompts and asking relevant questions. Electronic devices are not permitted during guest lectures.

Paper Assignments

There will be three paper assignments throughout the course.

Paper #1. Identifying an evidence-based intervention and organizations.

Objectives:

- Briefly describe a public health problem and the target population;
- Search for, identify, and select an approach, specifically an evidence-based intervention for a public health problem;
- Summarize to whom and where the evidence-based intervention has been tested;
- Justify the stage of translation research for this evidence-based intervention;
- Briefly identify and justify two professional organizations (at least one in Southwestern PA) that may be interested in implementing the selected evidence-based intervention.

Guidelines:

- Double Spaced
- Maximum 750 words, excluding citations.
- At least 4 scholarly citations.
- At least 2 citations for the organizations (at least 1 citation for each professional organization).
- Use *American Medical Association* citation formatting.
- Place your name, the course number, and date in the upper left-hand corner of the first page
- Include page numbers on the bottom right hand of the page

Grading

The grading rubric will be distributed on CourseWeb.

Paper #2. Applying implementation science frameworks to understand a public health solution.

Objectives:

- For your intervention from Paper 1, select an implementation science approach, theory, or conceptual framework
- Select one of the following approaches/frameworks/models: (1) Consolidated Framework for Implementation Research; (2) Active Implementation Framework; or (3) Dynamic Sustainability Framework. Then apply your selected approach/framework/model to understand the barriers and facilitators to the implementation of the evidence-based intervention from Paper 1 within one of the organizations in Paper 1.
- Describe essential elements of your selected approach/framework/model.
- Discuss a total of at least 4 barriers/facilitators from 2 different domains of the conceptual approach/framework may impact implementation
- In addition, discuss how at least one social determinant of health (e.g., gender, sexual orientation, race/ethnicity, disability, socioeconomic status) may impact implementation.

Guidelines:

- Double Spaced
- Maximum 1,000 words, excluding citations.
- At least 6 scholarly citations.
- Use *American Medical Association* citation formatting.

- Place your name, the course number, and date in the upper left-hand corner of the first page
- Include page numbers on the bottom right hand of the page

Grading

The grading rubric will be distributed on CourseWeb.

Paper #3. Interview an organization employee about implementing the evidence-based program.

Objectives:

- Briefly describe the professional organization and employee you have chosen to interview;
- Briefly describe the evidence-based intervention that aims to solve your selected public health problem;
- Write interview questions and probes as your method for understanding your professional organization's values and readiness to adopt your selected intervention;
- Interviews may not be recorded. Students are advised to take notes during the interviews and make reflective notes afterwards to be used as part of the paper.
- Based on your interview, describe your professional organizations values and readiness to adopt and implement the intervention within an implementation science approach/framework/model;
- Discuss future information you would like to know before implementing the evidence-based intervention within this professional organization, and where these factors fit within your implementation science approach/framework/model.

Guidelines:

- Double Spaced
- Maximum 1000 words, excluding citations.
- This needs to include your final interview guide, containing the following:
- Description of the evidence-based intervention (maximum 150 words)
- Open-ended questions and related probes (maximum 200 words)
- At least scholarly 6 scholarly citations
- Use *American Medical Association* citation formatting.
- Place your name, the course number, and date in the upper left-hand corner of the first page
- Include page numbers on the bottom right hand of the page

Grading

The grading rubric will be distributed on CourseWeb

Schedule of Sessions and Assignments

The course schedule can be found here:

https://docs.google.com/spreadsheets/d/1LmC0FEyr3OCqZKTP723_ufiWxYi9ESuR2jA_gotZK1g/edit?usp=sharing

Class Expectations

Prior to attending each week's class, you will be required to complete 1-4 readings, prepare snapshot lectures, and/or prepare discussion questions. Preparation for, and attendance in, every class is essential for success in the class. Some expectations I have for students include:

- **Regular attendance.** You are expected to attend every class on time unless discussed in advance.
- **Completion of required readings.** Come to class prepared having completed the readings and be ready to discuss those readings.

- **Completion of discussion questions and assignments.** All assignments and due dates will be uploaded to CourseWeb. If you need to request an extension, you must email The instructors at least 24 hours before the assignment is due.
- **Cellphones, Laptops, and Tablets.** Students are expected to limit use laptops and tablets in class to accessing course materials. It is not permissible to use laptops or tablets for texting, social media, or other non-course related activities. Cell phones are not permitted in class; however, students may exit the classroom to address emergency situations or take critical phone calls. Excessive violation of these expectations will result in a reduced participation score.
- **Respect.** The University of Pittsburgh Graduate School of Public Health supports learning environments that are inclusive and respectful of all individuals. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others.

Accommodation for Students with Disabilities

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 as early as possible in the term.

Pitt Public Health Academic Integrity Statement

All students are expected to adhere to the school's standards of academic honesty. Cheating/plagiarism will not be tolerated. The Graduate School of Public Health's policy on academic integrity, which is based on the University policy, is available online in the Pitt Public Health Academic Handbook <http://www.publichealth.pitt.edu/academic-handbook> The policy includes obligations for faculty and students, procedures for adjudicating violations, and other critical information. Please take the time to read this policy.

Diversity Statement

The University of Pittsburgh Graduate School of Public Health considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Pitt Public Health is committed to creating and fostering inclusive learning environments that value human dignity and equity. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others. While intellectual disagreement may be constructive, no derogatory statements, or demeaning or discriminatory behavior will be permitted. If you feel uncomfortable or would like to discuss a situation, please contact any of the following:

- the course instructor;
- the Pitt Public Health Associate Dean for Diversity at 412-624-3506 or nam137@pitt.edu;
- the University's Office of Diversity and Inclusion at 412-648-7860 or <https://www.diversity.pitt.edu/make-report/report-form> (anonymous reporting form).

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 <https://www.copyright.gov/> and the <http://www.cfo.pitt.edu/policies/policy/10/10-04-01.html>.

Sexual Misconduct, Required Reporting and Title IX Statement

The University is committed to combatting sexual misconduct. As a result, you should know that University faculty and staff members are required to report any instances of sexual misconduct, including harassment and sexual violence, to the University's Title IX office so that the victim may be provided appropriate resources and support options. What this means is that as your professor, I am required to

report any incidents of sexual misconduct that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:

A list of the designated University employees who, as counselors and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here:

www.titleix.pitt.edu/report/confidentiality

An important exception to the reporting requirement exists for academic work. Disclosures about sexual misconduct that are shared as part of an academic project, classroom discussion, or course assignment, are not required to be disclosed to the University's Title IX office.

If you are the victim of sexual misconduct, Pitt encourages you to reach out to these resources:

- Title IX Office: 412-648-7860
- SHARE @ the University Counseling Center: 412-648-7930 (8:30 A.M. TO 5 P.M. M-F) and 412-648-7856 (AFTER BUSINESS HOURS)

If you have a safety concern, please contact the University of Pittsburgh Police, 412-624-2121.

Other reporting information is available here: www.titleix.pitt.edu/report-0

Statement from the Department of Gender, Sexuality, and Women's Studies.

[This statement was developed by Katie Pope, Title IX Coordinator, in conjunction with GSWS instructors.]



University of Pittsburgh

Graduate School of Public Health

Department of Human Genetics

3127 Public Health
130 DeSoto Street
Pittsburgh, PA 15261, USA
412-624-3018
Fax: 412-624-3020

October 29, 2019

RE: HUGEN curriculum and course changes

Dear EPCC Members:

In August 2019, the HUGEN department received final approval for a new MS program in Genome Bioinformatics. Therefore, beginning in Fall 2020, we will have students in five programs:

- MPH in Public Health Genetics (MPH)
- MS in Genome Bioinformatics (MS-GB)
- MS in Genetic Counseling (MS-GC)
- MS in Human Genetics (MS)
- PhD in Human Genetics (PhD)

In addition to the new MS-GB program, the field of genetics continues to change rapidly, especially the knowledge, skills, and employment opportunities for our students. We continually assess the changes in the field, employment opportunities, and the needs and desires of our students. This latter activity is done via focus groups held at least twice per year. For example, genetic counseling students have expressed a need for more cancer genetic counseling and more clinical content. In contrast, MPH and PhD students have expressed a need for more bioinformatics training, teaching experience, and deep reading of the historical literature, but less clinical content.

Based on all of our assessments, we are instituting a series of changes in our curriculum to provide the basic knowledge and skills that all of our students need, as well as the flexibility for them to obtain the diverse skills and knowledge that they require for their specific degree programs, and remain within the bounds of our faculty capacity.

For the current review cycle, the HUGEN Department is submitting proposals for four courses to better meet the needs of our students and provide more flexibility – two of these courses previously existed as 3-credit courses, but have been extensively restructured as 2-credit courses. The 1-credit courses will be more clinically focused. The courses are:

- (1) HUGEN 2060: Chromosomes – Structure and Function (2cr); required for PhD, MS, and MS-GC students; available to all students
- (2) HUGEN 2061: Cancer Genetic counseling (1cr); required and available for MS-GC students only
- (3) HUGEN 2090: Genetics of Complex Diseases I (2cr); required for students in all five programs
- (4) HUGEN 2091: Genetics of Complex Diseases II (1cr); required for MS, PhD, MPH, and MS-GC; available to all students

As part of our curriculum restructuring and the new MS-GB program, the HUGEN Department will be submitting additional course syllabi to EPCC during Spring 2020 and Fall 2020.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Candace M. Kammerer". The signature is fluid and cursive, with a long horizontal flourish at the end.

Candace Kammerer, Ph.D.

Associate Professor and Vice Chair of the Department of Human Genetics

Director of Graduate Studies in Human Genetics (and Chair of HUGEN Curriculum Committee)

Director of MPH in Public Health Genetics Program

Director of Pitt Summer Edge in Public and Global Health Program

Email: cmk3@pitt.edu

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(Revised: 6/7/2018)

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):**

- | | |
|---|---|
| <input checked="" type="checkbox"/> New course, not previously approved | <input type="checkbox"/> Course modification (major) [†] |
| <input type="checkbox"/> Course title change | <input type="checkbox"/> Special topics course content |
| <input type="checkbox"/> Cross-listing | <input type="checkbox"/> Pitt Public Health Core Course |
| (Specify academic unit & course number): _____ | <input type="checkbox"/> Practicum, internship, field placement |

3. **Course designation:**

Course Number **HUGEN 2061** Title **Cancer Genetic Counseling** Credits **1**

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.

n/a

5. **Reason for request:**

In a few sentences, describe the motivation behind this application.

This course is being developed in response to student feedback given during their exit interviews with the Genetic Counseling Program and to alumni survey responses obtained during the Program's re-accreditation process. Students and alumni indicated a need for more concentrated cancer genetic counseling coursework prior to the commencement of clinical rotations.

† Changes to credits will require a new course number and significant title changes may require a new course number

6. **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: **Robin Grubs, PhD, LCGC, Associate Professor of Human Genetics**
- b. Co-instructors (if any):

7. **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.).

This course is designed to provide students with the knowledge and skills fundamental to the practice of cancer genetic counseling. The overall goal of the course is to allow students to apply cancer genetics knowledge to clinical situations. The course will cover hereditary cancer syndromes, cancer risk assessment models, and germline and somatic genomic testing.

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

- a. Indicate any maximum or minimum number of students and provide justification for this limitation.
There is not a particular maximum or minimum number of students. Since this is a required course for the first year genetic counseling students, it is expected that enrollment will be approximately 12 students.
- b. If admission is by permission of instructor, state criteria to be applied.
Please see "8 c."
- 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.
This course will build on the content and skills covered in HUGEN 2035 Principles of Genetic Counseling and HUGEN 2060 Chromosomes: Structure and Function. For this reason, these two courses will be prerequisites. In rare instances, students with relevant background in clinical genetics may enroll with permission of the instructor.

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

- a. Number of course hours per session **1.5** Sessions per week **2** Weeks per academic term **5**
- b. Approximate allocation of class time (hours or %) among instructional activities:

Lectures **60** Seminars _____ Recitations _____ Field work _____ Laboratory _____
_____ Other (specify): **Assignments and in-class activities 40%**

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

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

10. **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.

Grading Scale: 97-100% A+, 93-96% A, 90-92% A-, 87-89% B+, 83-86% B, 80-82% B-, 77-79% C+, 73-76% C, 70-72% C-, 67-69% D+, 63-66% D, 60-62% D-, <60 F

11. **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:

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)

12. **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 course will be required for students in the MS Genetic Counseling Program. The Program is accredited by the Accreditation Council for Genetic Counseling and required content areas include cancer genetic counseling, risk assessment, genetic testing interpretation, and genetic variant classification and interpretation. This course will be addressing all these required content areas and will do so in a cohesive fashion.

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

Interpretation of genomic test results is influenced by ethnicity. In addition, health disparities have been identified in the provision of genetic counseling services and in the management/treatment of various cancers. These issues will be addressed in the course.

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

Name/Title: **Robin E. Grubs, Human Genetics**

Date: **10/25/19**

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

Name/Title: _____

Date: _____

15. (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	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Course Title*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Course Meeting Time/Day of Week*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Classroom Location*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Faculty Information	Office Location*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Office Hours*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Phone Number*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Email Address*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Teaching Philosophy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Teaching Assistant Contact	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Student Expectations in Classroom	Behavior/ Ground Rules (cell phones off, laptops off, etc.)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Recording of Lectures	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
Course Summary	Course Description*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Learning Objectives*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Materials	Required Textbooks/ Articles/Readings	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Required Software	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
	Required Equipment (including use of CourseWeb/Blackboard)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Recommended Material	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
	Availability of Software for Purchase and/or Use	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>

<i>Evaluation</i>	Grading Scale*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Grading Criteria/Rubric	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Late Assignment Policy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Accommodation of Students with Disabilities</i>	University Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Academic Integrity Policy</i>	Pitt Public Health Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Diversity/ Inclusion Statement</i>	Pitt Public Health Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Title IX Statement</i>	University Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Schedule</i>	Topics by Session*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Reading and Written Assignments by Session*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Learning Objectives by Session	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Test Dates	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Additional Resources</i>	Health Sciences Library Liaison Contact Information	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Writing Center Contact (if course is writing intensive)	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>

Required Information Not Included

List the Required Detail Not Included

Reason for Not Including

List the Required Detail Not Included	Reason for Not Including

**Graduate School of Public Health
Department of Human Genetics
Cancer Genetic Counseling
HUGEN 2061
Wednesday and Friday 9 to 10:30 AM
Location: A522 Pitt Public Health
Credit Hours: 1.0
Spring 2020**

Instructor and Contact Information:

Robin E. Grubs, PhD, LCGC

Office: 3138 Parran Hall

Phone: 412-624-4695

Email: rgrubs@pitt.edu

Office hours: By appointment

Course Description

This course is designed to provide students with the knowledge and skills fundamental to the practice of cancer genetic counseling. The overall goal of the course is to allow students to apply cancer genetics knowledge to clinical situations. The course will cover hereditary cancer syndromes, cancer risk assessment models, and germline and somatic genomic testing.

Learning Objectives:

After completion of this course, each student will be able to:

- (1) identify the clinical features and management of hereditary cancer syndromes;
- (2) calculate cancer genetic risks using a variety of risk assessment models;
- (3) describe different genetic/genomic testing modalities used in clinical cancer genetic counseling; and
- (4) Explain genetic/genomic test result interpretation and risk assessment/management.

Prerequisites:

This course builds upon the knowledge and skills covered in HUGEN 2035 and HUGEN 2060 Chromosomes: Structure and Function. For this reason, these two courses are prerequisites to this course.

Requirements:

Complete assigned readings
Complete class assignments
Participate in class discussions

Short quizzes
Final exam

Required Texts

None. Readings are drawn from the current literature and classic texts on the course topics.

Student Performance Evaluation and Grading:

Your grade for the course is based upon the grades you receive on the assignments, short quizzes, and cumulative final exam as well as your participation during in-class discussions. The breakdown is as follows:

Variant of uncertain significance (VUS) vetting case presentation—15%
Short quizzes—15%
Cancer syndrome fact sheet—10%
Tumor testing interpretation assignment—10%
Risk model assignment—10%
Class participation—10%
Cumulative final exam—30%

- VUS vetting presentation project—For this project, you will need to vet a VUS result that you have received for a patient who had a hereditary cancer gene panel. You will need to summarize the literature for the particular VUS and use the American College of Medical Genetics variant reclassification guidelines to provide the rationale for why this finding is considered a VUS. There will be a 10-minute class presentation on April 10, 2020. Please send your PowerPoint presentation one week prior to your presentation.
- Short quizzes—You are expected to have read the assigned materials before each class. Short quizzes will be given to assess your understanding of the readings.
- Cancer syndrome fact sheet—Each student will be assigned one inherited cancer predisposition syndrome to research in order to generate a “fact sheet” for their fellow classmates. The expectation is that these fact sheets will aid in studying for the comprehensive examination, which takes place in the Fall semester of your second year of training as well as the American Board of Genetic Counseling certification examination. Fact sheets are due *** (TBD). Please email your fact sheet.
- Tumor testing interpretation assignment—For this project, you will be given the results from a somatic test ordered on a patient’s tumor and asked to assess the germline and treatment implications of the result for the patient. This assignment is due *** (TBD).
- Risk Model Assignment—Using the appropriate computer models, you will determine the breast cancer risks and the risks that a BRCA pathogenic will be identified. Case based questions about the risk models will be completed. Risk model exercise is due no later than *** (TBD). Please email the exercise.

- Class participation—you are expected to participate in class each week, through discussion, case-based learning and review of the information from the required readings.
- Cumulative final exam—An exam will be administered the final day of class to assess your understanding of the material presented during the course.

Since you are not graded on a curve, you will not be competing with your classmates for a grade. Therefore, we encourage you to help each other achieve the best work you are capable of producing. Working in a collaborative manner to strive for greater understanding will help you learn the material with more ease and enjoyment.

Grading Scale

97-100%	A+
93-96%	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
73-76%	C
70-72%	C-
67-69%	D+
63-66%	D
60-62%	D-
<60	F

CourseWeb/BlackBoard Instruction

This class utilizes CourseWeb for the class schedule and posting of required readings.

Academic Integrity

All students are expected to adhere to the school’s standards of academic honesty. Cheating/plagiarism will not be tolerated. The Graduate School of Public Health’s policy on academic integrity, 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.

Accommodation for Students with Disabilities:

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 as early as possible in the term.

A comprehensive description of the services of that office can be obtained at www.drs.pitt.edu.

Diversity Statement

The University of Pittsburgh Graduate School of Public Health considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Pitt Public Health is committed to creating and fostering inclusive learning environments that value human dignity and equity. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others. While intellectual disagreement may be constructive, no derogatory statements, or demeaning or discriminatory behavior will be permitted.

If you feel uncomfortable or would like to discuss a situation, please contact any of the following:

- the course instructor;
- the Pitt Public Health Associate Dean for Diversity at 412-624-3506 or nam137@pitt.edu;
- the University's Office of Diversity and Inclusion at 412-648-7860 or <https://www.diversity.pitt.edu/make-report/report-form> (anonymous reporting form).

Sexual Misconduct, Required Reporting and Title IX Statement

The University is committed to combatting sexual misconduct. As a result, you should know that University faculty and staff members are required to report any instances of sexual misconduct, including harassment and sexual violence, to the University's Title IX office so that the victim may be provided appropriate resources and support options. What this means is that as your professors, we are required to report any incidents of sexual misconduct that are directly reported to us, or of which we are somehow made aware.

There are two important exceptions to this requirement about which you should be aware: A list of the designated University employees who, as counselors and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: www.titleix.pitt.edu/report/confidentiality

An important exception to the reporting requirement exists for academic work. Disclosures about sexual misconduct that are shared as part of an academic project, classroom discussion, or course assignment, are not required to be disclosed to the University's Title IX office.

If you are the victim of sexual misconduct, Pitt encourages you to reach out to these resources:

- Title IX Office: 412-648-7860
- SHARE @ the University Counseling Center: 412-648-7930 (8:30 A.M. TO 5 P.M. M-F) and 412-648-7856 (AFTER BUSINESS HOURS)

If you have a safety concern, please contact the University of Pittsburgh Police, 412-624-2121.

Other reporting information is available here: www.titleix.pitt.edu/report-0

Schedule of Sessions:

Date	Topics and Assigned Readings
March 25, 2020	<p style="text-align: center;">Risk Assessment/ Risk Models</p> <ul style="list-style-type: none"> • National Comprehensive Cancer Network (NCCN) v.3.2019 Genetic/Familial High-Risk Assessment: Breast and Ovarian • NCI Cancer Genetics PDQs (http://www.cancer.gov/cancertopics/pdq/genetics) • Amir E, Freedman OC, Seruga B, Evans DG. Assessing women at high risk of breast cancer: a review of risk assessment models. <i>J Natl Cancer Inst.</i> 2010;102(10):680–691. • Gail MH and Mai PL. Comparing breast cancer risk assessment models. <i>J Natl Cancer Inst.</i> 2010;102(10):665-8. • Lee AJ. BOADICEA: a comprehensive breast cancer risk prediction model incorporating genetic and nongenetic risk factors. <i>Genet Med</i> 2019;0(0):1-11. PMID:30643217 • Antoniou A, Hardy R, Walker L et al. Predicting the likelihood of carrying a <i>BRCA1</i> or <i>BRCA2</i> mutation: validation of BOADICEA, BRCAPRO, IBIS, Myriad and the Manchester scoring system using data from UK genetics clinics. <i>J Med Genet</i> 2008;45:425-431.
March 27, 2020	<p style="text-align: center;">Breast Cancer Surgery/Breast Cancer Risk Management</p> <p>Screening guidelines:</p> <ul style="list-style-type: none"> • Saslow D. American Cancer Society guidelines for breast screening with MRI as an adjunct to mammography. <i>CA Cancer J Clin.</i> 2007;57(2):75-89. PMID: 17392385 <p>Management:</p> <ul style="list-style-type: none"> • Peters ML. Managing hereditary breast cancer risk in women with and without ovarian cancer. <i>Gynecol Oncol.</i> 2017 Jul;146(1):205-214. PMID: 28454658 <p>Chemoprevention:</p> <ul style="list-style-type: none"> • Nelson HD, Fu R, Zakher B, Pappas M, McDonagh M. Medication use for the risk reduction of primary breast cancer in women: updated evidence report and systematic review for the US Preventive Services Task Force <i>JAMA.</i> 2019;322(9):868-886. doi:10.1001/jama.2019.5780

	<ul style="list-style-type: none"> • Kala Visvanathan, MHS et al. Use of Endocrine Therapy for Breast Cancer Risk Reduction: ASCO Clinical Practice Guideline Update <i>J Clin Oncol</i>. 2019 Sep 3;JCO1901472. doi: 10.1200/JCO.19.01472.
April 1, 2020	<p>GI procedures & Surgery/ GI cancer Management</p> <ul style="list-style-type: none"> • Syngal S. ACG clinical guideline: Genetic testing and management of hereditary gastrointestinal cancer syndromes. <i>Am J Gastroenterol</i>. 2015; 110(2): 223-62. PMID: 25645574 • Colorectal cancer prevention, screening, and management: https://www.cancer.gov/types/colorectal/hp • Insert reference for PC surveillance review article (should be published in December) • Pancreatic cancer treatment: https://www.cancer.gov/types/pancreatic/hp/pancreatic-treatment-pdq • Le DT. PD-1 Blockade in Tumors with Mismatch-Repair Deficiency. <i>N Engl J Med</i>. 2015;372(26):2509-20. PMID: 26028255
April 3, 2020	<p>Renal/Endocrine syndromes</p> <ul style="list-style-type: none"> • Rednam SP , Erez A , Druker H , Janeway KA , Kamihara J , Kohlmann WK , Nathanson KL , States LJ , Tomlinson GE , Villani A , Voss SD , Schiffman JD , Wasserman JD . Von Hippel–Lindau and hereditary pheochromocytoma/paraganglioma syndromes: clinical features, genetics, and surveillance recommendations in childhood. <i>Clin Cancer Res</i> 2017;23(12):68–75. • Guilmette J & Nose V. Hereditary and familial thyroid tumors. <i>Histopathology</i> 2018;72:70–81. • Deng AT & Izatt L. Inherited Endocrine Neoplasia— A Comprehensive Review from Gland to Gene. <i>Curr Genet Med Rep</i> (2019) 7:102–115
April 8, 2020	<p>Pediatric Cancer Syndromes/Hematologic Syndromes</p> <ul style="list-style-type: none"> • Ripperger T. et al. Childhood cancer predisposition syndromes—A concise review and recommendations by the Cancer Predisposition Working Group of the Society for Pediatric Oncology and Hematology. <i>Am J Med Genet</i>. 2017;173:1017–1037. • Diets IJ et al. High Yield of Pathogenic Germline Mutations Causative or Likely Causative of the Cancer Phenotype in Selected Children with <i>CancerClin Cancer Res</i>; 24(7) April 1, 2018 • Furutani E et al. Germline Genetic Predisposition to Hematologic Malignancy <i>JCO</i> 2017;35(9): 1018-

	1028.
April 10, 2020	<p style="text-align: center;">VUS Vetting Presentations</p> <ul style="list-style-type: none"> • Richards S et al. Standards and guidelines for the interpretation of sequence variants: a joint consensus recommendation of the American College of Medical Genetics and Genomics and the Association for Molecular Pathology. <i>Genet Med</i> 2015;17(5):405-24. • Balmana J et al. Conflicting interpretations of genetic variants and cancer risk by commercial laboratories as assessed by the prospective registry of multiplex testing. <i>J Clin Oncol.</i> 2016 Dec;34(34):4071-4078
April 15, 2020	<p style="text-align: center;">Somatic Tumor Testing</p> <ul style="list-style-type: none"> • Jain R et al. The Relevance of Hereditary Cancer Risks to Precision Oncology: What Should Providers Consider When Conducting Tumor Genomic Profiling. <i>JNCCN</i> Jun;14(6):795-806 • Raymond V et al. Germline Findings in Tumor-Only Sequencing: Points to Consider for Clinicians and Laboratories. <i>JNCI</i> 2016;108(4). • Dumbrava EL et al. Expanded Analysis of Secondary Germline Findings From Matched Tumor/Normal Sequencing Identifies Additional Clinically Significant Mutations. <i>JCO Precis Oncol.</i> 2019;3. doi: 10.1200/PO.18.00143. Epub 2019 Apr 11 • Meric-Bernstam F. et al. Incidental germline variants in 1000 advanced cancers on a prospective somatic genomic profiling protocol. <i>Annals of Oncology</i> 27: 795–800, 2016
April 17, 2020	<p style="text-align: center;">Result interpretation (Case Based)</p> <p style="text-align: center;">Assigned readings: TBD</p>
April 22, 2020	<p style="text-align: center;">Challenging Cases</p> <p style="text-align: center;">Assigned readings: TBD</p>
April 24, 2020	Final

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(Revised: 6/7/2018)

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):**

- | | |
|---|---|
| <input checked="" type="checkbox"/> New course, not previously approved | <input type="checkbox"/> Course modification (major) |
| <input type="checkbox"/> Course title change | <input type="checkbox"/> Special topics course content |
| <input type="checkbox"/> Cross-listing only | <input type="checkbox"/> Pitt Public Health Core Course |
| (Specify academic unit & course number): _____ | <input type="checkbox"/> Practicum, internship, field placement |

3. **Course designation:**

Course Number HUGEN 20XX Title Genetics of Complex Diseases II Credits 1

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.

5. **Reason for request:**

In a few sentences, describe the motivation behind this application.

Starting this academic year, the existing HUGEN 2034 course will be offered in 2 parts in order to provide flexibility to HUGEN's heterogeneous student population.

6. **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: F. Yesim Demirci, Associate Professor of Human Genetics

b. Co-instructors (if any):

7. **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.).

This course will provide an overview of genetic and molecular basis of complex human diseases with primary focus on immune-mediated conditions, autoimmune diseases, and common eye disorders. Common human disorders largely contribute to the public health burden of disease and are influenced by a complex interplay of genetic, epigenetic, demographic, and environmental risk factors. Selected examples will be used in classroom lectures to illustrate the multifactorial nature of common complex human diseases.

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

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

During the past 10 years, we have had approximately 28 (20-35) students taking the HUGEN 2034 course every year, and although this number may increase slightly in the future (due to the new MS in Genome Bioinformatics program), the current classroom is sufficient to accommodate this expected increase in student population for the same course that will be provided in 2 parts starting this Spring.

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

- 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.

HUGEN 20XX - Genetics of Complex Diseases I

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

- a. Number of course hours per session 1.5 Sessions per week 2 Weeks per academic term 5

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

Lectures 100% Seminars _____ Recitations _____ Field work _____ Laboratory _____
Other (specify): _____

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

10. **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 letter grade

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

11. **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:

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)

12. **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.

This course is required for students in 5 programs (PhD, MS, MS-Genome Bioinformatics, MPH, and MS-Genetic Counseling) to meet the following competencies;

For the PhD, MS and MS-GB programs:

- Students successfully completing this program will be able to describe mechanisms by which genes and the environment interact to affect the distribution of health and disease in human populations.

For the MPH program:

- Students successfully completing this program will be able to identify interactions among genes, environmental factors and behaviors, and their effects on public health.

For the MS-GC program: Domain I: Genetics Expertise and Analysis

- Students successfully completing this program will be able to demonstrate and utilize a depth and breadth of understanding and knowledge of genetics and genomics core concepts and principles (a) in specific content areas.

For the Certificate in Public Health Genetics, it is one of the courses that contributes to the following competencies:

- Students successfully completing this certificate will be able to describe the roles that genetics plays in the development of disease.

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

The class will use examples of diseases/conditions that disproportionately affect different racial/ethnic groups and genders.

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

Name/Title: _____ Associate Prof, Human Genetics _____ Date: 10/25/19

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

Name/Title: Edna Foyell Chair, Human Genetics _____ Date: 10/25/19

15. (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	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Course Title*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Course Meeting Time/Day of Week*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Classroom Location*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Faculty Information	Office Location*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Office Hours*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Phone Number*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Email Address*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Teaching Philosophy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Teaching Assistant Contact	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Student Expectations in Classroom	Behavior/ Ground Rules (cell phones off, laptops off, etc.)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Recording of Lectures	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Course Summary	Course Description*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Learning Objectives*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Materials	Required Textbooks/ Articles/Readings	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Required Software	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
	Required Equipment (including use of CourseWeb/Blackboard)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Recommended Material	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Availability of Software for Purchase and/or Use	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>

<i>Evaluation</i>	Grading Scale*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Grading Criteria/Rubric	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Late Assignment Policy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Accommodation of Students with Disabilities</i>	University Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Academic Integrity Policy</i>	Pitt Public Health Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Diversity/ Inclusion Statement</i>	Pitt Public Health Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Title IX Statement</i>	University Statement*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Schedule</i>	Topics by Session*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Reading and Written Assignments by Session*	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Learning Objectives by Session	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Test Dates	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Additional Resources</i>	Health Sciences Library Liaison Contact Information	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Writing Center Contact (if course is writing intensive)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>

Required Information Not Included

List the Required Detail Not Included	Reason for Not Including
Course Number	Pending

Human Genetics 20XX
Genetics of Complex Diseases II
Spring Term 2020; Tuesday and Thursday, 2:30-3:55 PM
A215 Crabtree Hall

Instructor: F. Yesim Demirci, MD
3133 Public Health
412-383-7193
fyd1@pitt.edu
Office hours by appointment

Course Description:

This course will provide an overview of genetic and molecular basis of complex human diseases with primary focus on immune-mediated conditions, autoimmune diseases, and common eye disorders. Common human disorders largely contribute to the public health burden of disease and are influenced by a complex interplay of genetic, epigenetic, demographic, and environmental risk factors. Selected examples will be used in the classroom to illustrate the multifactorial nature of complex human diseases. Identifying multiple genetic variants/loci involved in common disease susceptibility and understanding the biological functions/pathways impacted by complex interactions of these genetic factors with other risk factors/exposures constitute an essential step towards improving the prevention, diagnosis, and management of these common conditions. This course will also provide an overview of the immune system and microbiome as related to their emerging important role in influencing the development and/or prognosis of a diverse array of complex human diseases.

Learning Objectives:

After completion of this course, the student will be able to:

- Describe the complex and multifactorial nature of common human diseases.
- Describe the complex genetic architecture and molecular basis of selected diseases of public health importance.
- Recognize and discuss the emerging important role of the immune system and microbiome in influencing the development and/or prognosis of various human diseases.
- Apply the knowledge gained in the classroom to conduct and/or interpret research relating to complex human diseases.

Prerequisites:

HUGEN 20XX - Genetics of Complex Diseases I

Required Textbooks/Articles/Readings:

There is no required textbook for this course.
Lecture notes and suggested readings will be made available on CourseWeb.

Student Performance Evaluation and Grading Scale:

Grades will be assigned based on four weekly quizzes (take-home, graded for completion, collectively 10% of final grade) and a final exam (in-class, graded for correctness, 90% of final grade).

The following will be the grading scale:

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

Class Schedule:

<u>Date</u>	<u>Topic/Focus</u>	<u>Take-home Quiz</u>
3/24	The Immune System - Part 1	
3/26	The Immune System - Part 2	Quiz 1 (distributed)
3/31	Immunogenetics	Quiz 1 (due)
4/2	Eye Diseases - Part 1	Quiz 2 (distributed)
4/7	Eye Diseases - Part 2	Quiz 2 (due)
4/9	Immunological Tolerance	Quiz 3 (distributed)
4/14	Autoimmune Diseases - Part 1	Quiz 3 (due)
4/16	Autoimmune Diseases - Part 2	Quiz 4 (distributed)
4/21	Microbiota / Microbiome	Quiz 4 (due)
4/23	Final Exam	

Accommodation for Students with Disabilities:

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 as early as possible in the term.

Academic Integrity Statement:

All students are expected to adhere to the school's standards of academic honesty. Cheating/plagiarism will not be tolerated. The Graduate School of Public Health's policy on academic integrity, 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.

Sexual Misconduct, Required Reporting and Title IX Statement:

The University is committed to combatting sexual misconduct. As a result, you should know that University faculty and staff members are required to report any instances of sexual misconduct, including harassment and sexual violence, to the University's Title IX office so that the victim may be provided

appropriate resources and support options. What this means is that as your professor, I am required to report any incidents of sexual misconduct that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:

A list of the designated University employees who, as counselors and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here:

www.titleix.pitt.edu/report/confidentiality

An important exception to the reporting requirement exists for academic work. Disclosures about sexual misconduct that are shared as part of an academic project, classroom discussion, or course assignment, are not required to be disclosed to the University's Title IX office.

If you are the victim of sexual misconduct, Pitt encourages you to reach out to these resources:

- Title IX Office: 412-648-7860
- SHARE @ the University Counseling Center: 412-648-7930 (8:30 A.M. TO 5 P.M. M-F) and 412-648-7856 (AFTER BUSINESS HOURS)

If you have a safety concern, please contact the University of Pittsburgh Police, 412-624-2121.

Other reporting information is available here: www.titleix.pitt.edu/report

Statement from the Department of Gender, Sexuality, and Women's Studies

[This statement was developed by Katie Pope, Title IX Coordinator, in conjunction with GSWS instructors.]

Diversity Statement:

The University of Pittsburgh Graduate School of Public Health considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Pitt Public Health is committed to creating and fostering inclusive learning environments that value human dignity and equity. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others. While intellectual disagreement may be constructive, no derogatory statements, or demeaning or discriminatory behavior will be permitted.

If you feel uncomfortable or would like to discuss a situation, please contact any of the following:

- the course instructor;
- the Pitt Public Health Associate Dean for Diversity at 412-624-3506 or nam137@pitt.edu;
- the University's Office of Diversity and Inclusion at 412-648-7860 or <https://www.diversity.pitt.edu/make-report/report-form> (anonymous reporting form).

Classroom Recording Statement:

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use but may not be further copied, distributed, published, or otherwise used for any other purpose.

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.

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(Revised: 6/7/2018)

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):**

- | | |
|---|---|
| <input checked="" type="checkbox"/> New course, not previously approved | <input type="checkbox"/> Course modification (major) |
| <input type="checkbox"/> Course title change | <input type="checkbox"/> Special topics course content |
| <input type="checkbox"/> Cross-listing only | <input type="checkbox"/> Pitt Public Health Core Course |
| (Specify academic unit & course number): _____ | <input type="checkbox"/> Practicum, internship, field placement |

3. **Course designation:**

Course Number 2060 Title Chromosomes – Structure and Function 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.

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: Candace Kammerer, responsible for 100% of the course

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

b. Co-instructors (if any):

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.).

Chromosomes are the primary means of biologically organizing and manipulating nuclear DNA within the cell, across cell generations, and across sexual generations. In this course we will investigate how differences in chromosome structure and function affect the roles chromosomes play as dynamic “megamolecules” in reproduction, development, health and disease.

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

- a. Indicate any maximum or minimum number of students and provide justification for this limitation.
None.
- b. If admission is by permission of instructor, state criteria to be applied.
None.
- 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.
None.

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

- a. Number of course hours per session 1.5 Sessions per week 2 Weeks per academic term 10
- b. Approximate allocation of class time (hours or %) among instructional activities:
Lectures 100% Seminars _____ Recitations _____ Field work _____ Laboratory _____
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.

This course is required for students in 3 HUGEN programs (MS, PHD, and MS-Genetic Counseling) to meet the following competencies.

- For the MS and PhD programs:

Students successfully completing this program will be able to describe basic genetic mechanisms and how they affect proteins, chromosomes, cells, individuals, and populations of organisms in normal and disease states.

- For the MS-GC program: Domain I: Genetics Expertise and Analysis

Students successfully completing this program will be able to demonstrate and utilize a depth and breadth of understanding and knowledge of genetics and genomics core concepts and principles (a) in specific content areas and (b) apply this knowledge and understand how it contributes to etiology, clinical features, natural history, differential diagnoses, genetic testing and test report interpretation, pathophysiology, recurrence risk, management and prevention, and population screening.

- For the Certificate in Public Health Genetics, it is one of the courses that contribute to the following competencies:

Students successfully completing this certificate will be able to describe the role that genetics plays in the development of disease.

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

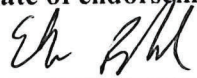
The course will discuss examples of conditions/diseases, such as cancer and infertility, that differentially affect groups based on gender, race, ethnicity and social strata.

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

Name/Title: 
Candace M. Kammerer/HUGEN

Date: 2019/10/31

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

Name/Title: 
Eleanor Feingold/HUGEN

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

<i>Evaluation</i>	Grading Scale*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Grading Criteria/Rubric	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Late Assignment Policy	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	X
<i>Accommodation of Students with Disabilities</i>	University Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Academic Integrity Policy</i>	Pitt Public Health Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Diversity/ Inclusion Statement</i>	Pitt Public Health Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Title IX Statement</i>	University Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Schedule</i>	Topics by Session*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Reading and Written Assignments by Session*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Learning Objectives by Session	Yes	<input type="checkbox"/>	No	X	N/A	<input type="checkbox"/>
	Test Dates	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Additional Resources</i>	Health Sciences Library Liaison Contact Information	Yes	<input type="checkbox"/>	No	X	N/A	<input type="checkbox"/>
	Writing Center Contact (if course is writing intensive)	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	X

Required Information Not Included

List the Required Detail Not Included	Reason for Not Including
Readings are not given in the syllabus	They will be listed on Courseweb

Course Syllabus (draft)
Department of Human Genetics
HUGEN 2060: Chromosomes - Structure and Function
HUMAN GENETICS
Spring Semester 2020 – 2 credits
Tuesday & Thursday, 4:30-6:00 PM, Room A521 Public Health

Instructor:

Candy Kammerer, PhD
Room: 3120 Public Health
Phone: 412-624-7265 (work)
E-Mail: cmk3@pitt.edu
Office hours: Before and after class, and by appointment

Course Description:

Chromosomes are the primary means of biologically organizing and manipulating nuclear DNA within the cell, across cell generations, and across sexual generations. In this course we will investigate how differences in chromosome structure and function affect the roles chromosomes play as dynamic “megamolecules” in reproduction, development, health and disease.

Course Goal

The goal of this course is provide a thorough grounding in the field of cytogenetics by conveying key concepts about the dynamic relationship between chromosome structure and function, and its impact on cellular maintenance, recombination, genetic and epigenetic transmission of genetic material across generations, and evolution. Historical and current examples from humans and other species will be used to gain insights into cytogenetic phenomena and mechanisms. The course will also include discussion of several methodologies used to discern the relationship between structure, function, and dysfunction, aka, disease. A few specific topics include meiosis, mitosis, recombination, chromatin, imprinting, sex determination, reproduction/infertility, chromosome stability/instability, and cancer genetics. Overall, the course will include a comparative cytogenetics approach because “Nothing in biology makes sense, except in the light of evolution”, Theodosius Dobzhansky (1973).

Learning Objectives:

After completion of this course, the student will be able to:

- Compare and contrast the chromosome mechanisms (structure and function) involved in mitosis and meiosis
- Interpret cytogenetic nomenclature
- Compare and contrast imprinting mechanisms across species
- Describe effects of chromosome constitution on sex determination, reproduction, and infertility
- Describe the role of chromosomal instability and copy number variants in development of cancer and other disorders

Teaching Philosophy:

This course emphasizes active participation, critical thinking, and continued learning. Because we all know different things and have experienced different events, all questions and viewpoints are encouraged and respected in the classroom and within groups. Science advances by observing, asking questions, and listening.

Text:

The Principles of Clinical Cytogenetics. SL Gersen, MB Keagle. 2013 SpringerLink
Available online free for University of Pittsburgh from ULS & HSLs
<https://link.springer.com/book/10.1007/978-1-4419-1688-4>

Additional articles and handouts will be posted on Courseweb.

Grading:

The grading for this course is based on multiple homework exercises, quizzes, in-class activities, and two exams. Your grade for the course is based upon your work as follows:

In-class activities/discussion	10%
Homework	15%
Quizzes	15%
Midterm exam (in-class)	30%
Final exam (take-home)	30%

Except for the exams and in-class quizzes, students may help each other to achieve the best work you are capable of producing. Working with one another to achieve mastery will help you learn the material with greater ease and enjoyment.

Grading scale:

94- 100% = A
90-93% = A-
87-89% = B+
84-86% = B
80-83% = B-
70-79% = C
Below 70% = F

Homework

Several short homework assignments (5-8) will be assigned throughout the semester. Students are encouraged to work cooperatively, but each student must submit their own work. Homework assignments will be assessed for completeness and effort.

All homework assignments will be posted on Courseweb.

Quizzes

Several quizzes (at least five) will be given at the beginning of class throughout the semester and will comprise 1-3 questions each (total 5-10 minutes) and will cover the same material as the homework assignments. They will be graded for correctness. The lowest quiz grade will be dropped.

Class Schedule:

Date	Topic	G&K Chapters; Readings are online
MODULE 1: Concepts and Background		
Jan 8	Introduction to course; history of chromosomes, mitosis	1
Jan 10	Cell cycle, replication, mechanics of chromosome segregation, chromosome chemistry and packaging	2, Readings
Jan 15	Basic cytogenetic methods, chromosome nomenclature	3, 4; ISCN(2016)
Jan 17	Karyotypes, comparative cytogenetics, evolution	Readings
Jan 22	Chromosome interactions, Chromosome capture conformation (hi-C) methods	Readings
Jan 24	Structural chromosome variations (aneuploidy, rearrangements)	8,9
Jan 29	Meiosis	Readings
Jan 31	Recombination, mechanisms	Readings
Feb 5	Polyploidy, chromosomes and evolution	Readings
Feb 7	Sex Determination, X and Y chromosomes	10, Readings
Feb 12	Exam 1 (covers material through Feb 5)	
Feb 14	Sex determination systems and disorders	10
Feb 19	X-inactivation, imprinting, development	20, Readings
Feb.21	Chromosome Instability, copy number variants	14
Feb 26	DNA Repair Defects; Chromosomal Breakage Syndromes; Cancer Predisposition Guest Lecturer: Patricia L. Opresko, Ph.D.	Readings
Feb 28	Cancer Genetics 1. The Basics: Oncogenes/Tumor suppressor genes/ Mismatch Repair Genes/ DNA Repair Genes/ Inherited Cancer Predisposition. Guest Lecturer: Phuong L. Mai, M.D	Readings

Date	Topic	G&K Chapters; Readings are online
Mar 4	Cancer Genetics 2. More in depth of cancer cytogenetics Familial Cancer Syndromes, and Predisposing Genes. Family History Essentials, Counseling, and Testing. Guest Lecturer: Phuong L. Mai, M.D	Readings
Mar 6	Fragile X – A family of disorders and review	19
Mar 11-13	Spring Recess	
Mar 18	Topic of Student choice	
Mar 20	FINAL EXAM – take home	

Diversity:

The University of Pittsburgh Graduate School of Public Health considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Pitt Public Health is committed to creating and fostering inclusive learning environments that value human dignity and equity. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others. While intellectual disagreement may be constructive, no derogatory statements, or demeaning or discriminatory behavior will be permitted.

If you feel uncomfortable or would like to discuss a situation, please contact any of the following:

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- the Pitt Public Health Associate Dean for Diversity at 412-624-3506 or nam137@pitt.edu;
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Disabilities:

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and [Disability Resources and Services](#), 140 William Pitt Union, 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. Cheating/plagiarism will not be tolerated. The Graduate School of Public Health’s policy on academic integrity, 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.

Sexual Misconduct, Required Reporting and Title IX Statement:

The University is committed to combatting sexual misconduct. As a result, you should know that University faculty and staff members are required to report any instances of sexual misconduct, including harassment and sexual violence, to the University's Title IX office so that the victim may be provided appropriate resources and support options. What this means is that as your professor, I am required to report any incidents of sexual misconduct that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:

A list of the designated University employees who, as counselors and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: www.titleix.pitt.edu/report/confidentiality

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If you have a safety concern, please contact the University of Pittsburgh Police, 412-624-2121.

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Statement from the Department of Gender, Sexuality, and Women's Studies

[This statement was developed by Katie Pope, Title IX Coordinator, in conjunction with GSWS instructors.]

Educational Policies and Curriculum Committee
Graduate School of Public Health
University of Pittsburgh
(Revised: 6/7/2018)

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):

- | | |
|---|---|
| <input checked="" type="checkbox"/> New course, not previously approved | <input type="checkbox"/> Course modification (major) |
| <input type="checkbox"/> Course title change | <input type="checkbox"/> Special topics course content |
| <input type="checkbox"/> Cross-listing only | <input type="checkbox"/> Pitt Public Health Core Course |
| (Specify academic unit & course number): _____ | <input type="checkbox"/> Practicum, internship, field placement |

3. Course designation:

Course Number 2090 Title Genetics of Complex Diseases I 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.

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: M. Ilyas Kamboh, PhD

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

b. Co-instructors (if any):

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.).

This course provides students with an overview of the molecular and biochemical genetic approaches to determine the underlying genetic architecture of common diseases. The genetic, environmental and epigenetic factors that influence susceptibility to common disease will be illustrated using selected examples, such as cardiovascular disease, neurodegenerative diseases, and mental health diseases.

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

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

This is a required course for all human genetics students. Graduate students from other departments may also take with course. The total expected number of students is approximately 25-35 .

- 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.

N/A

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

- a. Number of course hours per session 1.5 Sessions per week 2 Weeks per academic term 10

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

Lectures 90% Seminars _____ Recitations 10% Field work _____ Laboratory _____

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.

This course is required for students in 4 programs (MPH, MS, PHD, and MS-Genetic Counseling) to meet the following competencies.

•For the MS, MS-GB, and PhD programs:

Students successfully completing this program will be able to describe mechanisms by which genes and the environment interact to affect the distribution of health and disease in human populations.

•For the MPH program:

Students successfully completing this program will be able to identify interactions among genes, environmental factors and behaviors, and their effects on public health.

•For the MS-GC program: Domain I: Genetics Expertise and Analysis

Students successfully completing this program will be able to demonstrate and utilize a depth and breadth of understanding and knowledge of genetics and genomics core concepts and principles (a) in specific content areas.

•For the Certificate in Public Health Genetics, it is one of the courses that contribute to the following competencies:

Students successfully completing this certificate will be able to describe the role that genetics plays in the development of disease.

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

The genetics of complex diseases that differentially affect groups based on gender, race, ethnicity, and social strata will be discussed in this course.

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

Evaluation	Grading Scale*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Grading Criteria/Rubric	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Late Assignment Policy	Yes	<input type="checkbox"/>	No	X	N/A	<input type="checkbox"/>
Accommodation of Students with Disabilities	University Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Academic Integrity Policy	Pitt Public Health Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Diversity/ Inclusion Statement	Pitt Public Health Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Title IX Statement	University Statement*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Schedule	Topics by Session*	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Reading and Written Assignments by Session*	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	X
	Learning Objectives by Session	Yes	<input type="checkbox"/>	No	X	N/A	<input type="checkbox"/>
	Test Dates	Yes	X	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Additional Resources	Health Sciences Library Liaison Contact Information	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Writing Center Contact (if course is writing intensive)	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

Required Information Not Included

List the Required Detail Not Included	Reason for Not Including
Schedule: readings and lecture slides	Are available on courseweb

Human Genetics 2090
Genetics of Complex Diseases I
Spring Term 2020; Tuesday and Thursday, 2:30-3:55 PM
2 credits, 10 weeks
A215 Crabtree Hall

Instructor: M. Ilyas Kamboh, PhD
3117 Public Health
412-624-3021
kamboh@pitt.edu
Office Hours: by appointment

Course Description:

This course provides students with an overview of the molecular and biochemical genetic approaches to determine the underlying genetic architecture of common diseases that account for a large portion of the public health burden of disease. The genetic, environmental and epigenetic factors that influence susceptibility to common disease will be illustrated using selected examples, such as cardiovascular disease, neurodegenerative diseases, and mental health diseases.

This course provides students with an understanding of the biochemical and molecular genetic approaches to understand genetically determined susceptibility to common diseases. This will be presented using selected examples of complex human diseases (cardiovascular disease, neurodegenerative diseases, and mental health diseases). Risk of common, complex diseases is determined by genotypes at multiple genetic loci and a complex interaction of genetic variation and environmental exposures. Risk of almost every common disease is influenced by genes, but the relationship between genotype and disease phenotype is weak compared to that observed with rare Mendelian traits. However, understanding the contribution of genes to common disease susceptibility is important to public health.

Course Objectives:

At the end of this course the student will be able to:

- Describe the epidemiology and biochemical and molecular bases of selected common diseases
- Describe the underlying genetic architecture and environmental risk factors that influence genetic susceptibility to a variety of common, complex diseases ranging from cardiovascular disease to neurological disorders
- Describe and discuss the public health impact of a variety of common, complex diseases, including potential pharmacogenomics applications

Purpose of Course:

The goal of this course is to provide students with an understanding of the molecular and biochemical genetic approaches to understanding genetically determined susceptibility to common diseases. This goal will be achieved by using selected examples of complex human diseases (cardiovascular disease, neurodegenerative diseases, and mental health diseases).

Risk of common and complex diseases is determined by the genotypes at multiple genetic loci and their complex interaction with environmental exposures. Understanding the contribution of genetic factors to common disease susceptibility is important to public health because these diseases account for a large fraction of morbidity and mortality in the general population.

This course will also cover the importance of pharmacogenomics and epigenetics to show how genetic differences can affect individual's response to drugs (pharmacogenetics) and how changes in gene expression can occur without changes in the DNA sequence due to DNA methylation, histone modification or RNA interference (epigenetics) as these factors can also play a role in the development of common diseases.

Text Book:

There is no text book for this course. Handouts are used extensively. Lecture slides and reading are available on Courseweb.

Grading:

Grades will be assigned based on mid-term exam (50%), final exam (50%). The following will be the grade scale:

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

Behavior/Ground Rules

All students are expected to behave professionally in the class (i.e. listen to the lectures attentively and participate in discussion; no use of cell phones; laptops are allowed only related to the classroom teaching activities).

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Statement from the Department of Gender, Sexuality, and Women's Studies

[This statement was developed by Katie Pope, Title IX Coordinator, in conjunction with GSWS instructors.]

Class Schedule:

<u>Date</u>	<u>Topic</u>
1/7	Introduction – Genetic basis of common diseases
1/9	Genetic basis of common diseases
1/14	Coronary artery disease (CAD) – Epidemiology, genetic evidence, heritability of risk factors, atherosclerosis process

- 1/16 Role of lipid metabolism and lipid genes in CAD. Genome-wide association studies (GWAS) of CAD
- 1/21 Familial Hypercholesterolemia (FH) - Clinical features of heterozygous and homozygous FH, population distribution of heterozygous FH, cholesterol homeostasis
- 1/23 Role of the LDL-receptor (LDL-R) gene in FH, structure of the LDL-R protein, classification of LDL-R mutations. A brief description of other monogenic disorders that affect plasma LDL cholesterol and the risk of CAD
- 1/28 Apolipoprotein E (APOE) in lipid metabolism and risk of CAD
- 1/30 Genetics of APOE in affecting plasma cholesterol levels and the risk of CAD, APOE and Type III hyperlipoproteinemia
- 2/4 **Mid-Term Exam**
- 2/6 Alzheimer's disease – types of dementia, Epidemiology and risk factors
- 2/11 Alzheimer's disease – clinical and pathological features, Diagnostic biomarkers,
- 2/13 Alzheimer's disease – Genetics and Possible treatments
- 2/18 Parkinson's Disease
- 2/20 Introduction to Epigenetics: Etymology, definitions and molecular basis of epigenetics (Dr. Koldamova)
- 2/25 Mechanisms of Epigenetics: DNA methylation and chromatin remodeling, RNA interference and microRNA (Dr. Lefterov)
- 2/27 Pharmacogenetics and Pharmacogenomics
- 3/3 Schizophrenia– Epidemiology, risk factors and biological mechanisms, Genetics (Dr. Nimgoankar)
- 3/5 Autism spectrum disorders (Dr. Padiath)
- 3/10 & 3/12 Spring Break – No Classes**
- 3/17 Multiple Sclerosis (Dr. Padiath)
- 3/19 **Final Exam**



University of Pittsburgh

Graduate School of Public Health
Department of Environmental and Occupational Health

130 DeSoto Street
A419 PUBHL
Pittsburgh, PA 15261
412-383-7700
412-624-9361

November 1, 2019

**Subject: Re-Purposing of Program (Previously DrPH in EOH) to
Doctor of Philosophy (PhD) Concentration in Public Health Practice (PHP)**

Dear EPCC Members:

The faculty of the Department of Environmental & Occupational Health (EOH) is submitting for your consideration the attached proposal regarding an Area of Concentration in Public Health Practice that we seek to incorporate within our existing PhD program. This will not be an entirely new concentration of study; we are essentially proposing the re-branding of our previously established, but currently suspended, DrPH program. Since the re-branded program will continue to utilize existing infrastructure and established courses, there will be no significant new impact on departmental/school budgets or teaching loads.

The decision to suspend our existing (and successful) DrPH program was forced upon EOH by the Council on Education for Public Health (CEPH). The most recent CEPH guidelines concerning a program of study for the DrPH degree in an accredited school is at odds with the career development of our already graduated DrPH students and does not suit the needs of the majority of any potential new EOH doctoral students interested in a Public Health Practice track. To avoid any unnecessary complications when GSPH is next subject to re-accreditation, EOH has undertaken to, basically, change the name of the suspended DrPH program to PhD in EOH with a Concentration in Public Health Practice.

Sincerely,

A large, handwritten signature in black ink, appearing to read "Jim Peterson", written over a horizontal line.

Jim Peterson
Associate Professor of Environmental & Occupational Health
jimmyp@pitt.edu

**Proposal: Re-Purposing of Program (Previously DrPH) to
Doctor of Philosophy (PhD) Concentration in Public Health
Practice**

**Department of Environmental and Occupational Health
Graduate School of Public Health**

Submission: November, 2019

1. Overview

The faculty of the Department of Environmental and Occupational Health (EOH) propose the re-purposing (essentially, the re-naming) of the, presently suspended, “DrPH in Environmental & Occupational Health (EOH),” to the “PhD Concentration in Public Health Practice in EOH,” without modification to the program previously approved by the University Council on Graduate Study (UCGS) in 2008. The aim remains to provide advanced professional education for individuals who desire advisory/leadership positions in high-level administration and/or decision-making in an Environmental Health setting. In addition, the program presents an opportunity for individuals currently working in areas related to Environmental Health who are seeking to strengthen their professional competency.

a. Individuals Initiating the Proposal

Sally Wenzel, M.D, Chair, Environmental and Occupational Health;
Jim Peterson, Ph.D, Associate Professor, EOH (Contact)
Aaron Barchowsky, Ph.D. Professor, EOH

Phone: 412-624-3442 (412-327-5321 cell) Email: jimmy@pitt.edu

b. The Center of Responsibility

Department of Environmental and Occupational Health, Graduate School of Public Health

c. The Degree Program to be Initiated

PhD Concentration in Public Health Practice in Environmental and Occupational Health.

d. The Department Affected by the Proposed Program

There will essentially be no practical effects of changing the old name DrPH to the new name PhD II. The program will continue not to impact any departments other than EOH.

e. Date of the Proposal

It is proposed that the DrPH degree program be implemented effective January 2020.

Background

Within the last couple of years, our accrediting agency (CEPH) has developed a set of guidelines regarding what the relevant committee members believe should constitute a DrPH program of study. We cannot reasonably conform to the new template, that does not suit the needs of our potential students. Consequently, we propose to simply re-name the existing and functioning doctoral program PhD Concentration in Public Health Practice in

EOH. *[Note: In 2007-2008, during its passage through UCGS, it was suggested that the proposed DrPH was equally acceptable as a PhD concentration and, in fact, this would have been the UCGS's preference (Eleanor Feingold can confirm this). At that time, the suggestion was resisted by EOH because the prevailing departmental opinion was that prospective students would value the DrPH name in addition to the course of study. When informally polled, however, most of our previously enrolled DrPH students expressed no preference, with a very small minority (one) mentioning that PhD might be a "more broadly recognizable qualification."]*

The DrPH in EOH was approved and enrolled the first student in 2008. Since then, 10 DrPH candidates have graduated and 3 remain enrolled (in the process of writing their dissertations). One DrPH alumnus is presently in a postdoctoral position at Harvard, the rest are in permanent non-academic positions (foundations, government agencies, industry) at least two of which are internationally prominent. Of the remaining 3 enrolled students, all have already found permanent non-academic positions and are now completing their dissertations on a part-time basis. Despite the small numbers, this has been a reasonably successful program that has no EOH or GSPH financial support – the students must fund themselves, usually through obtaining sponsorship or an externally funded research position. There are undoubtedly favorable employment opportunities for emerging graduates and the research scope of the department has been broadened by the program. Even though the DrPH is currently suspended, we have 3 students currently waiting to enroll in the proposed re-named PhD Concentration in Public Health Practice, all with outside support already secured.

[Note: The remainder of this document has been modified from the original DrPH proposal making minimum changes as necessary (e.g. any extraneous material has been removed and previous mention of "DrPH" has been changed to read "PhD Concentration in Public Health Practice" or "PhD PHP.")]

Environmental Health management has been a highly successful enterprise during the past several decades. Especially since the 1970's, there have been great improvements in pollution prevention and a stronger focus on the integration of Environmental Health considerations into economic and social decision-making. Careers as Environmental Health professionals can be found in government, private industry, international organizations, nonprofit and non-governmental organizations. Outside of the laboratory, career-related activities within the Environmental Health field include policy analysis, education and advocacy, regulatory and legislative design, regulatory compliance and enforcement, and both governmental and private technical assistance. In spite of successes, there are important and urgent Environmental Health issues even now requiring attention. Thus, there is a societal need at both the local and at the national level for individuals with high-level training at the professional level in the decision-making aspects of Environmental Health.

The Environmental and Occupational Health (EOH) Department in GSPH has developed a highly-focused program toward a PhD degree, which prepares individuals as scientists for technical, scientific research in Environmental Toxicology. A broad-based Doctor of

Philosophy in Public Health Practice (PhD PHP) degree program in EOH is required for preparing individuals for professional advisory/leadership positions in the management aspects of Environmental Health.

The PhD PHP degree program in EOH provides a professional degree that emphasizes a practice-oriented, interdisciplinary approach to research that encompasses in its coursework the competencies of the five core areas of Public Health: environmental health, biostatistics, epidemiology, health policy and management, and behavioral and community health aspects of Public Health. It further includes courses to develop proficiencies in one of several high-level career directions.

The contrast between the existing PhD program in EOH and the PhD PHP program in EOH can be described briefly. The existing PhD program in EOH has an emphasis on basic Environmental Health scientific theory and requires of the student's research a contribution to theory or a novel addition to basic scientific knowledge. The PhD in EOH tends to lead to a career in academic Environmental Health research. The PhD PHP emphasizes Environmental Health practice, policy, or management with a focus on applied science and more practical problem solving. The PhD PHP requires of the student's research a novel application of Environmental Health science, or the solution of an Environmental Health problem in a novel setting. The PhD PHP leads to a career as a decision-making professional in the environmental aspects of Public Health. We anticipate that most students in the PhD PHP program in EOH may want to specialize in one of two areas: Environmental Health Policy and the Law, or Environmental Health Risk Analysis. Other areas of specialization will also be available. (In fact, as of 2019, most of our DrPH graduates have moved into careers in environmental advocacy, or occupational safety; fulfilling roles as high-level technical consultants to decision-making bodies).

2. Description of the Proposed EOH PhD PHP Program

a. Goals

A student completing the PhD PHP program in Environmental and Occupational Health should be able to

- Identify and assess Environmental Health problems
- Determine the factors contributing to each problem
- Develop intervention strategies
- Implement intervention strategies
- Monitor and evaluate the results of the intervention

These skills are to be developed through achieving all the competencies and satisfying the other requirements of the MPH degree in EOH; additionally, further learning outcomes specific to the PhD PHP area of concentration will be accomplished:

- Demonstrate a broad range of knowledge and analytical skills in EOH and be able to communicate how these may be integrated with the other key disciplines of public health.
- Demonstrate an ability to interpret information produced by others in the field and organize this into a scholarly written document.
- Demonstrate an advanced understanding of concepts and problems in the area selected for their research and dissertation topic.
- Demonstrate the ability to speak and write about the focused research topic at the core of their dissertation work, while also demonstrating broad knowledge in related concepts.

b. Admission Requirements

Candidates for the PhD PHP program in EOH must meet the following admission requirements:

- They must hold the MPH degree, or they must fulfill admission requirements for the MPH and also must have completed the requirements for the MPH degree in the program in which they are registered in GSPH, or they must hold a graduate degree in a field or profession relevant to health care or health sciences,
- They also must demonstrate (or have demonstrated previously) ability for leadership in their field, as well as for advancement of scientific knowledge.

Applicants who are graduates of a recognized college or university but who do not qualify for admission to full graduate status because of deficiencies in either their undergraduate course program or their scholastic achievement, may be considered for provisional graduate status if strong supporting evidence of their ability to successfully complete the program is provided. Courses taken to remove deficiencies will not count toward completion of graduate degree requirements.

c. EOH Doctor of Public Health Course Requirements

A minimum of 48 credits in course work is required for the PhD PHP. This total is made up of the GSPH core courses, a core of required courses in the Department of Environmental and Occupational Health and a broad list of electives that allow coursework from various relevant disciplines. The student must complete a total of at least 72 credits of course work and research with a minimum QPA of 3.0.

[Note: We were previously asked by UCGS to document the specific differences between the existing PhD and the proposed Concentration (or DrPH as it was then). This comparison is presented in the Appendix.]

**COURSES FOR ENVIRONMENTAL AND OCCUPATIONAL HEALTH
Doctor of Philosophy (AOC Public Health Practice in EOH) – PhD PHP**

Course Name	Number	Term	Required?	Credits
GSPH CORE COURSES 17 credits				
BIOS: Intro to Stat Methods 1	2041	Fall	Yes	3
EPID: Principles of Epidemiology	2110	Fall	Yes	3
PUBHLT: Foundations of Public Health	2033	Fall	Yes	1
PUBHLT: Public Health Biology	2015	Fall	Yes	2
PUBHLT: PH Grand Rounds	2022	Fall/Spring	Yes	
BCHS: Social & Behavior Sci & Public Health	2509	Spring	Yes	3
HPM: Health Policy & Management in Public Health	2001	Spring	Yes	3
PUBHLT: Public Health Commun	2034	Spring	Yes	2
EOH CONCENTRATION COURSES 20+ credits				
BIOS: Applied Regression Anal	2049	Spring	Yes	3
EOH: Environ Health Chemistry	2309	Fall	Yes	3
EOH: Principles of Toxicology	2175	Fall	Yes	3
EOH: Principles of Environmental Exposure	2504	Fall	Yes	3
EOH: Intro to Risk Sciences	2180	Spring	Yes	1

EOH: Intro to Risk Sciences Practicum	2181	Spring	Yes	2
EOH: Transport and Fate of Environ Agents	2122	Spring	Yes	3
EOH Practicum	2108	Spring/Summer	Yes	2
Essay/Special Studies	2021	All Terms	Yes	2
Special Studies	2021	All Terms	Yes	1-15
Research & Dissertation	3010	All terms	Yes	1-15
<p>ELECTIVES Choose at least 11 credits – any graduate-level course may be taken for elective credits.</p>				

Part-time registration is allowed for the PhD PHP student. However, at least one term of full time residency is required by the University for a doctoral degree prior to graduation. This requirement excludes any other employment except as approved by the EOH Department (*Regulations Governing Graduate Study at the University of Pittsburgh*).

Because the DrPH degree program is being offered to part-time as well as full-time students, no time line of courses, examinations, or research credits has been defined. EOH will follow all University/GSPH rules with regard to maximum time interval allowed to complete the requirements for the degree.

d. Examinations and Research

The PhD PHP is a Graduate School of Public Health degree program and the Department of Environmental and Occupational Health adheres to the School's requirements for this degree. The sequence of Examinations leading to the fulfillment of requirement for the new Concentration is essentially the same as that for our existing PhD. The composition of the various Examination Committees adheres to the GSPH minimum requirements. The specific Examinations and the timing of these are described briefly below.

- **Qualifying Evaluation** (Preliminary Examination) is designed to assess the student's knowledge of the discipline, the student's achievement after **completing all of the core course requirements for the MPH degree**, when it should be conducted, and the potential to apply research methods independently. The student will be required to make an oral presentation (20 min) of the material contained in their MPH Essay to their Qualifying Committee and satisfactorily address any questions. This evaluation is used to

identify those students who may be expected to complete a Doctoral program successfully and reveal areas of weakness.

- **Comprehensive Examination** is designed to assess the student's mastery of the general field of Doctoral Study, the student's acquisition of both depth and breadth in the area of specialization within the given field, and the ability to use the research methods of the discipline. It may be oral, written or both. It should be administered at approximately the time of completion of the formal course requirements and should be passed at least eight months before the scheduling of then final oral examination and dissertation defense. After passing this examination, the student is recommended for degree candidacy.

- **Overview or Prospectus Meeting** is where a dissertation proposal prepared by the Doctoral student is presented to the Doctoral Committee at a formal overview meeting. The overview requires a student to carefully formulate a plan and permits the Doctoral Committee to provide guidance in shaping the conceptualization and methodology of the plan. The Doctoral Committee must unanimously approve the dissertation topic and research plan before the student may be admitted to candidacy for the Doctoral degree. Approval of the proposal does not imply either the acceptance of the dissertation prepared in accord with the proposal or the restriction of the proposal to the original proposal.

- **Admission to Candidacy** for a Doctoral degree constitutes a promotion of the student to the most advanced stage of graduate study and provides formal approval to devote exclusive attention to the research and writing of the dissertation. To qualify the student must be in full graduate status, have satisfied the requirements of the Preliminary Evaluation, have completed formal coursework with a minimum quality point average of 3.00, have passed the Comprehensive Examination, shown proficiency in a research or investigative tool, and have received approval of the proposed subject and plan of the dissertation from the Doctoral Committee following an Overview Meeting of the committee. This must occur at least one term before the Dissertation Defense.

- **Final Oral Examination** is where the student presents his/ her research to the Doctoral Committee. This examination may be either a defense of the dissertation, or an examination in the field of the dissertation, or a combination of both and need not be confined to materials in or related to the dissertation. All members of the Doctoral Committee must attend the examination. Any member of the graduate faculty of the University may attend and participate in the examination. Only members of the Doctoral Committee may be present during the final deliberations and may vote on passing of the candidate. The chairperson of the doctoral committee should ensure that the dissertation is in final form before requesting signatures of the members of the committee.

e. Student Performance

The criteria for evaluation of student performance and the procedures for dismissal will be the same for students in this program as for all other GSPH students.

f. Chronology of Implementation

It is anticipated that the DrPH program will be implemented for the 2019-20 academic year beginning in the Spring Semester (January 2020).

4. Impacts on Other University Programs

Since we are proposing to merely re-brand an existing program, utilizing existing courses and other infrastructure, the PhD PHP Area of Concentration in EOH will have no significant financial impact on University programs either short or long term. There will be no necessary changes (neither hiring nor re-assignment) in faculty or staff personnel stemming from the PhD PHP Concentration. Initially, it is anticipated that only a modest number of students (1-2 per year) will continue to be recruited by the re-branded program, representing manageable changes to our typical class rosters. As PhD PHP students are expected to pay their own tuition and the costs of running the program (advertising and recruiting) can be accomplished by re-budgeting departmental funds for similar efforts, the program is considered revenue neutral. The noted exception will be the awarding of GSR slots (according to GSPH policy) when external grant funds exist to fully support the incoming student for the duration of their tenure in the PhD PHP Concentration.

5. Faculty Groups and Relevant Administrators

Again, because we are essentially proposing to re-brand an existing program that was previously approved at Departmental, School and University levels as recently as 2007-2008, extensive consultations with colleagues other than within the EOH Education Committee (Sally Wenzel, Aaron Barchowsky, Jim Peterson) have not been revisited. Guidance for this submission was provided by Jessie Burke, Eleanor Feingold and Robin Leaf.

Appendix

Comparison of Existing PhD and Proposed Public Health Practice Area of Concentration (PhD PHP) in Environmental & Occupational Health

	PhD (existing)	PhD PHP (proposed)
Purpose	To train individuals for subsequent postdoctoral positions; from which they will ultimately pursue careers in college-level teaching and/or independent research.	To prepare graduates to advance environmental health issues impacting the public, through the integration and application of a broad range of knowledge and analytical skills in basic environmental science, leadership, public health practice, policy analysis, professional communication and program management.
GSPH Core	Not required	Required (17 credits)
EOH Core	19 credits – 9 in common with PhD PHP (Environmental Health Chemistry, or Principles of Environmental Exposure; Introductory Statistics I; Principles of Toxicology).	21 credits – 9 in common with PhD (Environmental Health Chemistry, or Principles of Environmental Exposure; Introductory Statistics I; Principles of Toxicology).
Journal Club	Oral presentation by individual students of the findings reported in current research literature (1 credit per semester).	Not required.
Rotation	Part-time introduction to research (4.0 credits) before research advisor has been selected.	Not required.
Practicum	Not required.	Two hundred hours minimum, full-time practicum spent working at relevant company, foundation, or government agency. The practicum has structured learning objectives, outcomes and performance evaluation.

Qualifying	Written original research proposal (5 page limit) addressing a current RFA (request for applications) published by a federal agency. Oral presentation and examination.	Essay (over 20 pages) that may be analytical or interpretive, based upon literature review or original data, addressing an issue of current environmental public health concern. Oral presentation and examination.
Research	The required data will normally be generated through laboratory-based experiments; but in the case of more theoretical projects, the data could be obtained from other sources, or produced by numerical simulations.	The collection of original qualitative and quantitative data could involve laboratory experiments, field-work, obtaining the information from other available sources, or frequently some combination of these. Equally relevant would be appropriate secondary re-analysis of existing environmental health data, or the application of other methodologies to an environmental health problem, such as socioeconomic analysis and policy development strategies.
Dissertation	One or more relevant hypotheses should have been tested, some scientific paradox resolved, or a new piece of scientific theory will have been developed.	The dissertation should focus on a practical and significant problem within environmental health. Although the dissertation may be hypothesis driven, it may also involve the translation and application of scientific data to programmatic initiatives or relevant policies. The overall objective of the dissertation should ultimately be to contribute to improvement of the public's health through a greater understanding of, or better protocol for dealing with, environmental factors.

Pitt Public Health | Faculty Retreat 2019

Notes from Presentation by Linda DeAngelo, PhD, Associate Professor of Higher Education, School of Education, University of Pittsburgh

Presentation Title: Holistic review: What does the GRE have to do with it?

This is a place where a lot of schools and programs are finding themselves in, as the GRE has a number of barriers to potential applicants and students.

The cost is prohibitive. The GRE full price is \$207 with submission of scores to four institutions/ programs, then for each after it is an additional \$27. A test prep course from Kaplan averages \$2,500.

Despite efforts by the Educational Testing Service (ETS), women and minorities score lower on the exam. Even ETS acknowledges this is an issue. *See slides 6-13 of PowerPoint presentation.*

Performing holistic review of each application. The use of a rubric and systematic reviews are key.

Having cutoff scores for GRE is not part of a holistic review.


Components in a personal statement such as passion for the discipline and understanding current issues can be included in a rubric.

If GRE scores are submitted, review them later on in the process (and for all applicants at this same time). Knowing the GRE scores can dominate your brain.

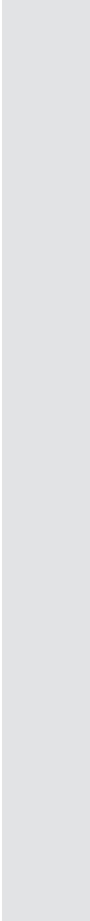
Key questions that each admissions committee must discuss, *see slide 21 of PowerPoint presentation.*

Holistic review: What does the GRE have to do with it?

Linda DeAngelo, PhD
Associate Professor
of Higher Education
School of Education



Our Work Together in this Session


- 1) Get some information from all of you on your assessment of the problem and thoughts about the GRE.
 - 2) Review some data about GRE test takers in Life Sciences and Health and Medical Sciences (area where Public Health is categorized by GRE).
 - 3) Discuss what the evidence shows about the utility of the GRE and how the GRE says the tests should be used (and not abused) in admissions.
 - 4) Explore what holistic review looks like with the GRE (and without it).
 - 5) Discuss... what is most important... engaging in holistic review!
- 

What do you
want that you
don't have?

What do you want among your applicants
and/or admitted students that you don't
have currently?

What are the area(s) where you want to
see changes?

- Recruitment?
- Who Is Admitted?
- Who Comes?
- Other?



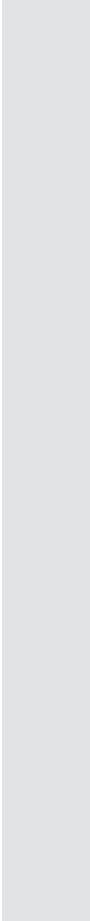
So, what do
you think
about the
GRE?

What do you all think about the GRE?

How have you been using the GRE in admissions?

What are your fears if you stop using the GRE?

What are your fears if you don't stop using the GRE?



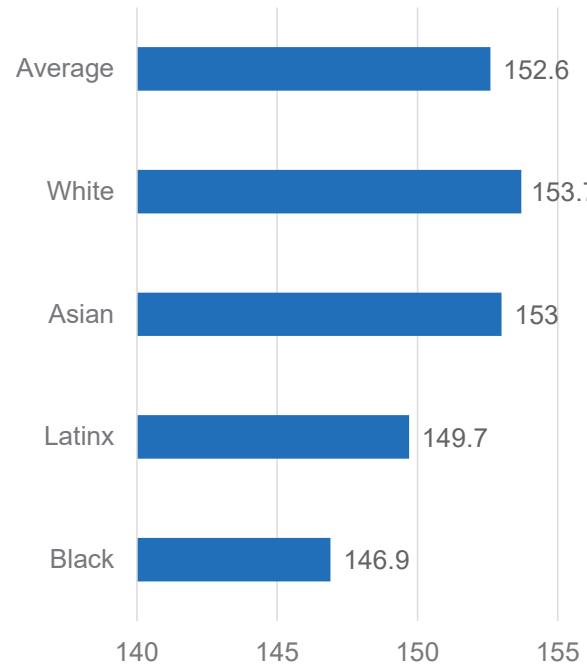


Data

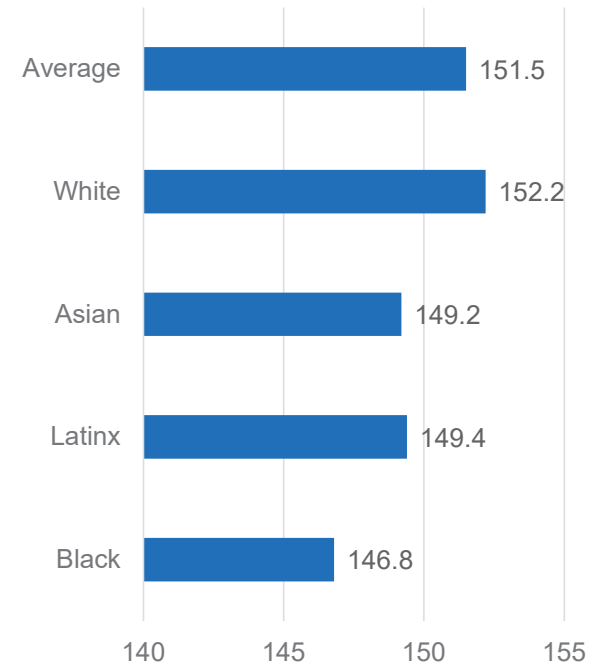
A look at average scores by race/ethnicity (US Citizens)

Verbal Reasoning

All Test Takers



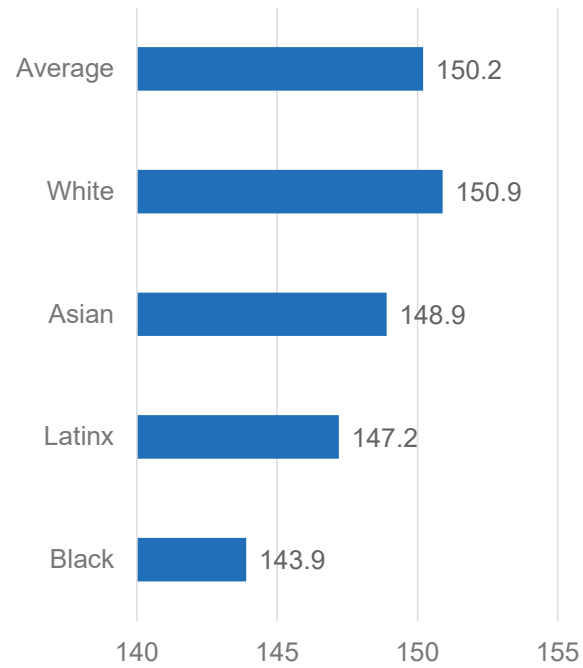
Life Science Test Takers



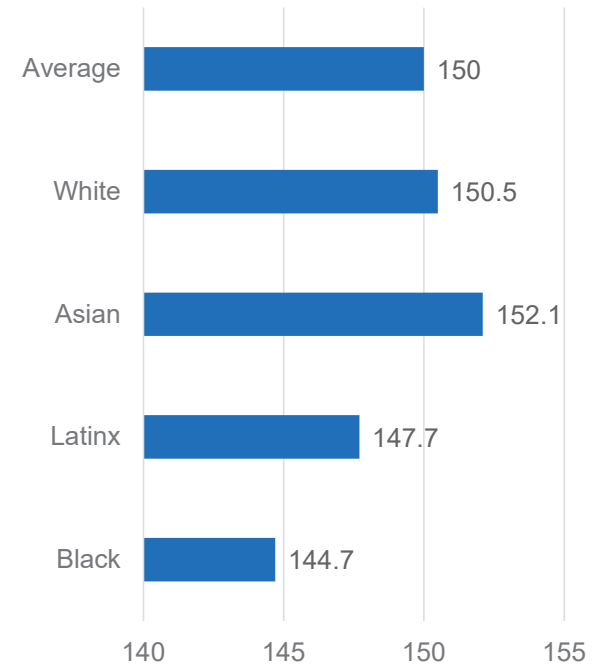
A look at average scores by race/ethnicity (US Citizens)

Quantitative Reasoning

All Test Takers



Life Science Test Takers



Health and Medical Sciences Average GRE Scores

Verbal

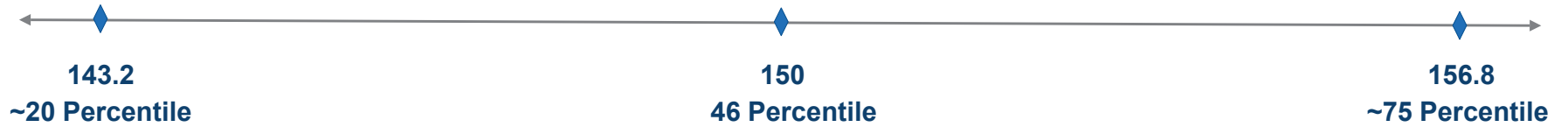
150
46 Percentile

Quantitative

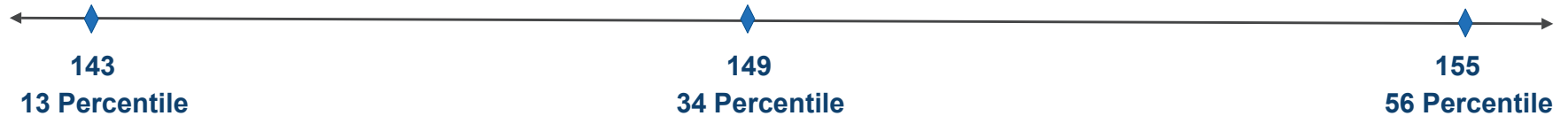
149
34 Percentile

Health and Medical Sciences GRE Scores Actual Differences in Ability (95% Confidence)

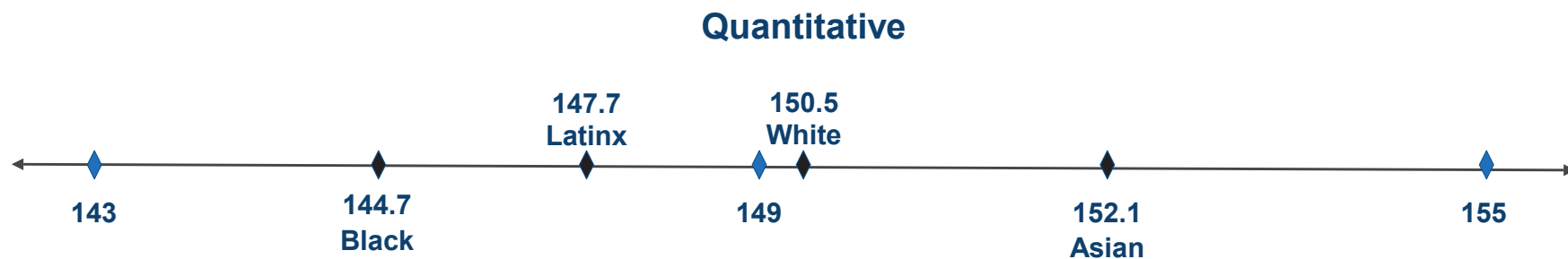
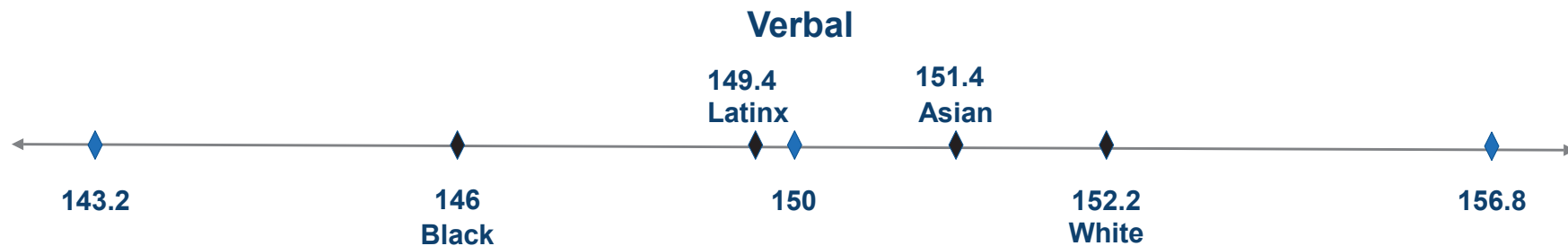
Verbal



Quantitative

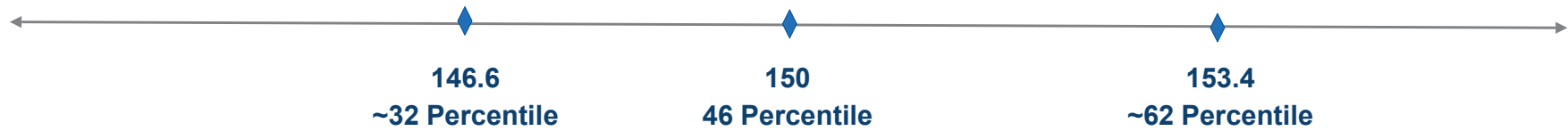


Health and Medical Sciences GRE Scores Actual Differences in Ability (95% Confidence)



Health and Medical Sciences GRE Scores Actual Differences in Ability (68% Confidence)

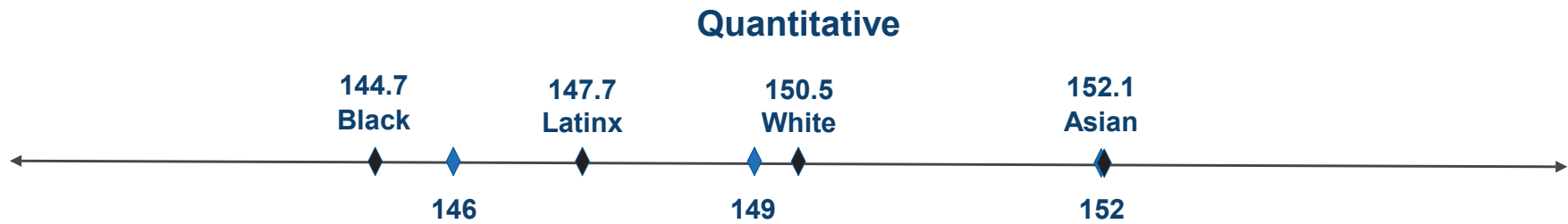
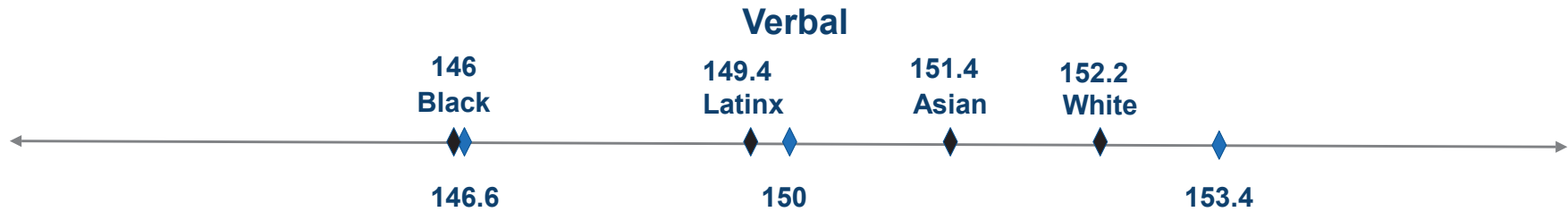
Verbal



Quantitative



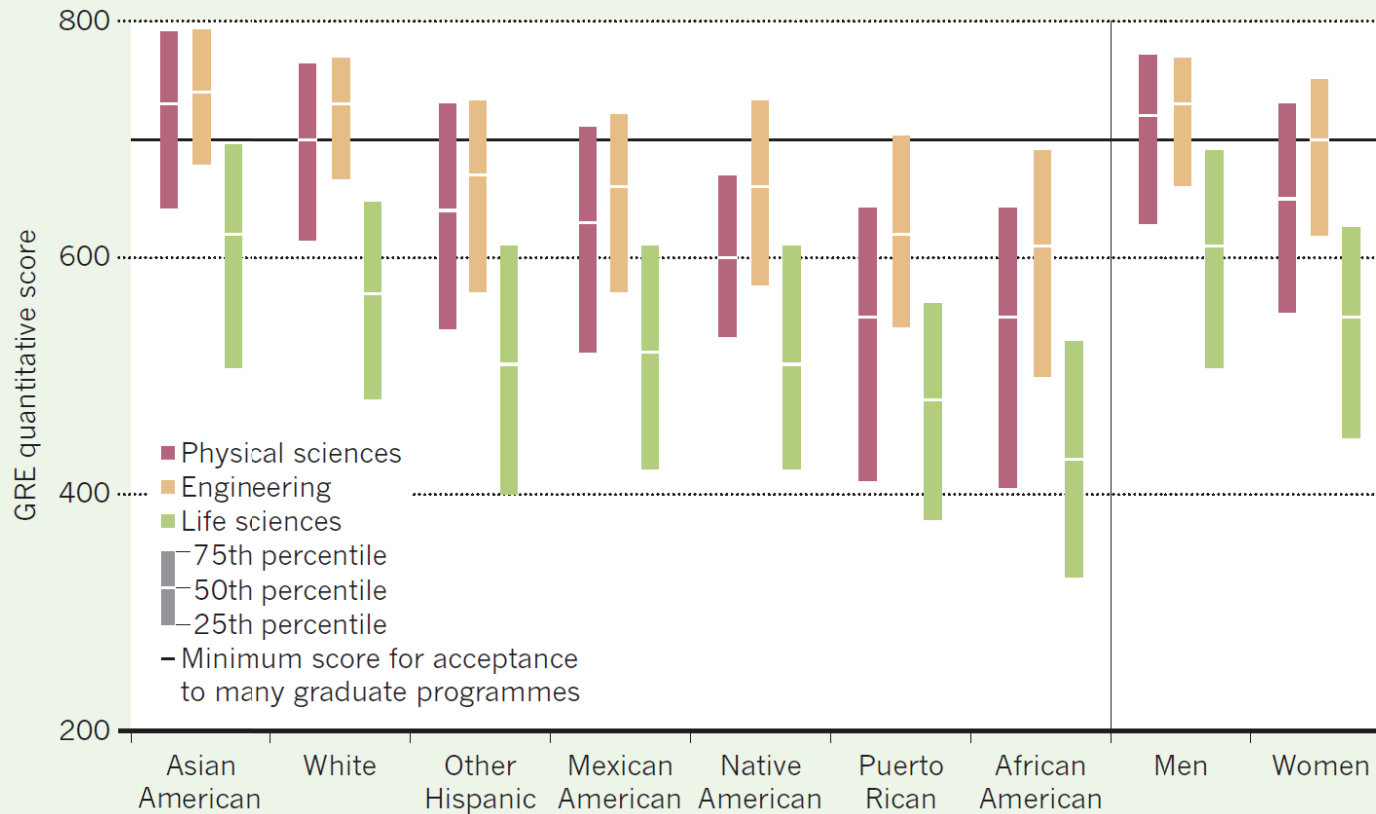
Health and Medical Sciences GRE Scores Actual Differences in Ability (68% Confidence)



THE GREAT DIVIDE

The data represent the scores typically achieved in the quantitative reasoning test of the graduate record examinations (GRE) by US students from different ethnic groups applying for graduate school. In the physical sciences, a minimum score of 700 is required by many PhD programmes.

SOURCE: ETS





Evidence and Utility



The cost of taking the GRE and sending test scores disadvantages rural and low-income students.



The need to take the GRE may keep students from historically underrepresented groups from aspiring to graduate study and/or taking the test.



Requiring the GRE may keep students from historically underrepresented groups from applying to your program.



Over-reliance on the GRE in admissions disproportionately disadvantages underrepresented racial minority students and women.

Is the GRE a Barrier?

How to use the GRE in admissions

Appropriate Use

- Using as one piece of information on an applicant.
- Considering the verbal, quantitative, and writing scores/percentile ranks as independent measures.
- Interpreting scores carefully, understanding what score differences may be meaningful.
- Recognizing that historically underrepresented racial groups and women score lower despite efforts by ETS to insure fairness.

Abuse of Use

- Setting a minimum score threshold/percentile rank.
- Using a minimum score/percentile rank as the main/only criterion.
- Making inferences about a candidate's success in your program beyond what ETS recommends (lack of validity).
- Attributing score differences for underrepresented racial groups and women as indicators of misfit for success in your degree program.

What does the evidence say about the GRE

Nathan Kuncel's Meta-Analytic Studies

Kuncel, et al. (2001, 2010)

- First-Year GPA (master's and doctoral).
- Cumulative GPA (master's and doctoral).

Kuncel, et al. (2001)

- Comprehensive exam scores (verbal better than quantitative).
- Faculty evaluations.

Other Studies

Morrison & Morrison (1995) Meta-Analytic Study

- Relationship between GRE and Cumulative GPA so weak as to render GRE useless as predictor.

Sealy et al. (2019) examined biological sciences

Null relationship with:

- Number of publications, first-authored publications.
- Time to degree.
- Faculty evaluations.

What the GRE doesn't assess

- Research performance.
- Time to degree.
- Degree completion.

- Perseverance and grit.
- Commitment and passion for the discipline.
- Creativity and curiosity.
- Recovery from failure.



Holistic Review

Require the GRE? Forgo the GRE? Test Optional?

Why engage in a holistic review process?

Holistic review (whole file review) is a process by which graduate programs consider a broad range of “cognitive” and “non-cognitive” characteristics as well as personal attributes that they consider important to success.

As reported by CGS (2016) there is a growing body of scholarly work suggesting that factors beyond grades and GRE scores predict future success.

Holistic review helps graduate programs to more thoroughly evaluate candidates regardless of their backgrounds.

Setting up holistic review requires introspection and commitment



- How could our admissions practices and priorities better align with the program's mission? Who is on the committee? Is the leadership sufficiently long-lived to make and sustain change?
- What qualities marked our most and least successful students? How do we select for the former and against the latter?
- How do we assess achievements relative to potential? Should we target the few applicants with the strongest overall accomplishments, or the larger pool we believe can grow and succeed in our program?
- How are we explicitly working to select students who will contribute to the diversity of our program and the profession?
- How could our admissions process -- and approach to graduate education, generally -- account for the fact that most non-finishers leave graduate school for non-academic reasons?
- To what extent do the application structure and prompts provide the information we need?
- Do faculty receive training in admissions review? How could the review process be reorganized to check biases inherent in graduate admissions?

Elements of Holistic Review

Use a
RUBRIC!!!

- Selection criteria are broad-based and clearly linked to the programs mission and goals.
- Metrics examine applicants' experiences, attributes, and academics (cognitive, non-cognitive, and personal attributes) during the entire review and selection processes.
- Processes consider applicants with the intent of creating a richly diverse pool at initial screening and final selection stages.
- Metrics and processes are applied equitably across the entire candidate pool.
- The entire admissions process is grounded in assessing candidates using criteria that moves beyond GRE scores.
- Individualized consideration is given how each applicant may contribute to the programs learning environment and to the profession.
- Create a RUBRIC that allows the committee to weigh and balance the range of criteria in the application in order to achieve the outcomes desired by the program.

How does holistic review change without the GRE?

- GRE not required:
 - Add an interview component?
- Test-optional:
 - Design a system for assessing applicants who do and do not submit score; initially ignore submitted scores until tentative admissions decisions have been made on all applicants.



Discussion

The Imperative - Engaging in Holistic Review

Thank You!
**I am happy to consult
with your school and/or
individual departments!**

Linda DeAngelo

deangelo@pitt.edu

**Graduate School of Public Health
Educational Policies and Curriculum Committee
Meeting Minutes | October 3, 2019**

Present: Matt Borkowski, Cindy Bryce, Jessica Burke, Mary Derkach, Ying Ding, Patricia Documet, Jim Fabisiak, Eleanor Feingold, David Finegold, Nancy Glynn, Robin Leaf, Karrie Lukin, Noble Maseru, Josh Matilla, Susanna Qiao, Giovanna Rappocciolo, Kimberly Rehak, John Shaffer, Martha Terry, and Yi-Chuan Yu.

The meeting was called to order at 1:30PM by Dr. Patricia Documet, chair.

Welcome new student members, Patricia Documet

Dr. Patricia Documet, EPCC chair, welcomed the new student representatives to the committee:

- Doctoral-level primary representative: Susanna Qiao, earning a PhD in Epidemiology
- Master's-level primary representative: Yi-Chuan Yu, earning an MS in Epidemiology

ACTION: No action necessary.

GRE discussion and next steps, All

Dr. Patricia Documet recapped the EPCC committee's past discussions on whether to eliminate the GRE requirement at the school-level. The main arguments for eliminating the requirement were to diversify the student applicant pool and to remain competitive with other schools of public health. The committee voted in favor of keeping the GRE requirement at the school level but to revisit the conversation if any of those conditions changed.

As Boston University School of Public Health has dropped the GRE requirement on a three-year probational period and as student enrollment at Pitt Public Health was lower this year than in previous years, the EPCC committee decided to reopen the discussion of the GRE requirement. Committee members were to discuss the issue with their departments and report their findings.

Dr. Noble Maseru, from the Center for Health Equity, reported that 60-80% of diversity candidates decline admission to Pitt Public Health. He said he suspects that lack of resources is a big reason for that.

Dr. Martha Terry said that, as the BCHS MPH program director, she finds GRE scores helpful for predicting performance for MPH core courses in biostatistics and epidemiology. For doctoral students, there were some BCHS faculty who thought that the school could drop the GRE, as they use a holistic admissions process. However, whether the department would vote to keep the GRE as a requirement was unclear.

Dr. Ying Ding reported that Biostatistics thinks that the quantitative GREs are important for establishing a threshold for admissions, especially for doctoral applicants. For master's-level students, Biostatistics faculty were not averse to dropping the requirement at the school-level. However, if the school decided to drop the GRE requirement, Biostatistics thought it was pertinent to find some other way to assess student quantitative ability and support students who may struggle with more quantitatively rigorous core courses.

Dr. James Fabisiak said that EOH faculty thought that the GRE's were useful for showing quantitative abilities for master's-level students, especially those with foreign education or those who attended smaller institutions in the US. For PhD students, the EOH department could be more flexible with requiring GRE quantitative scores.

Dr. Nancy Glynn stated that the Epidemiology department would retain the GRE regardless of whether the school keeps the requirement. Also, she mentioned that the number of students in

her department are not down and suggested that financial aid packages might help with regaining numbers at the school-level.

The HPM department wanted to market holistic admissions but keep the GRE requirement, with 70% of faculty voting in favor.

Dr. John Shaffer reported that faculty in the Human Genetics department were split as to whether to require the GRE. There was some ambivalence about forcing the requirement at the school level, but other programs definitely wanted to keep it.

The IDM department thought that the GRE test was a good resource for evaluating international applicants but realize that test scores do not correlate with success in departmental programs and can sometimes be a hindrance for recruitment.

Student committee members said that they thought the GRE requirement could be kept but without a strict threshold. Additionally, keeping the requirement for international students but not domestic applicants raises the question about whether the requirement would be waived for international applicants with an American education. Karrie Lukin, Pitt Public Health's admissions and recruitment manager, said that it would be difficult for her office to manage multiple GRE requirements and that certain candidates can already have conditions where, if met, the GRE can be waived.

ACTION: Pitt Public Health faculty will discuss the GRE requirement at the faculty retreat on October 21, 2019, and EPCC representatives will report back with a summary of the discussion. Additionally, the committee will review how financial incentives and recruitment efforts pan out with the next admissions cycle.

Accelerated bachelor's/master's degree program credit limit, Cindy Bryce

Dr. Cindy Bryce, associate dean for student affairs, presented concerns regarding the accelerated bachelor's + master's degree program, for which the most recent cohort of students totals 7. In August 2019, the accelerated program switched from a 3+2 to a 4+1 program, providing a nice tuition discount for students, but complicating issues with regards to credit limits as undergraduate students can take up to 18 credits per term. One student in the current cohort will earn the necessary credits for the MPH degree in three semesters. The main concern with allowing accelerated students to take more than the 15 credits allowed for Pitt Public Health graduate students is that accelerated students will lose out on the graduate student experience, including opportunities to network, participate in leadership roles in student groups, and certificate programs. Pitt Public Health would need to come up with a credit limit policy for these students and pass it to the undergraduate institution for implementation.

ACTION: The committee voted to approve a policy in accelerated students are limited to 15 credits per term (with a 16th credit permitted if approved by the program director of the student's graduate degree program) for their fourth year of undergraduate study.

Modified Course – IDM 2040: *Scientific Communication*, Josh Mattila

Dr. Josh Mattila presented an application for a major course modification for the IDM 2040: Scientific Communication course. Suggested modifications were based on feedback received after two iterations of the course and scheduling conflicts that IDM students experienced at the School of Medicine. Moving forwards, the course will be offered in the spring term as opposed to the summer. Ethics content will be added to the scientific communication syllabus, changing the course from 1 credit to 2—which raised concern from EPCC committee members regarding program credit and scheduling requirements.

ACTION: The committee members agreed that the changes submitted in the proposal were significant enough to constitute a new course. Dr. Mattila should submit a new course

application and present at a future EPCC meeting. Additionally, he should talk to IDM program directors to gauge whether the extra credit requirement will limit options for students.

Preview Epidemiology Course Restructuring, Samar El Khoundary and Maria Brooks

Drs. Samar El Khoundary and Maria Brooks presented a preview of and explanation for an upcoming restructuring of the epidemiology methods courses and course progression/sequencing, motivated in large part by the restructuring of the biostatistics' curricula as well as changes to EPIDEM 2187. Gaps in the EPI methods sequences, particularly in parametric longitudinal analysis and survival data analysis topics.

Upcoming curricular changes are, as follows: change the name to EPIDEM 2180—from Epidemiological Methods 1 to Epidemiological Methods 1/ Intermediate Epidemiological Methods—and make minor content changes; remove EPIDEM 2187: Epidemiological Methods 2 and replace it with two new 3-credit courses—Epidemiological Methods 2/ Epidemiological Methods of Longitudinal and Time-to- Event Analysis (Primary instructor: Samar El Khoundary) and EPIDEM 2191: Epidemiological Methods 3/ Advanced Theory and Methods for the Analysis of Epidemiological Data (Primary instructor: Ashley Naimi); change the title of EPIDEM 2230 from Advanced Topics in Epidemiological Methods to Secondary Data Analysis and make a minor change in emphasis.

ACTION: The committee approved the pre-proposal.

Modified Course – EPIDEM 2220: *Introduction to Environmental Epidemiology*, Evelyn Talbott (at 3:15pm)

Dr. Evelyn Talbott presented an application for a modified course motivated by the implementation of changes to its companion course (EPIDEM 2221). Geospatial analysis has been removed from the syllabus, which changed the total number of credits from 3 to 2. However, some introductory lectures on ArcMap will be included in the syllabus for EPIDEM 2220 along with the main course content that involves the association between environmental risk factors and disease.

ACTION: The committee members voted to approve the changes provided they list Ravi K. Sharma as Adjunct Assistant Professor, remove “be able to” from Learning Objective #1 and “At the end of class, the students should be able to” from Learning Objective #6, and delete the departmental information for the instructor and co-instructor from the semester schedule. Additionally, the change in credits requires that this course receive a new number.

Approval of September Meeting Minutes, All

The committee members voted to approve the minutes, provided that a typo in Dr. Patrica Documet's last name was fixed.

The meeting was adjourned at 3:30pm.

Upcoming Meeting(s):

November 7, 2019 – 1:30-3:30 p.m. (1149 Public Health) | *Set spring term meeting schedule*

December 5, 2019 – 1:30-3:30 p.m. (1149 Public Health)