“Potential of the Electronic Health Record in the Era of Precision Medicine”

COURSE DESCRIPTION
BMI 553/653 is a weekly reading seminar in which the subject area is selected each year based on current topics in Bioinformatics and Computational Biology and analytics – either new methodology or new applications of existing methodology. The emphasis this quarter is on “Potential of the Electronic Health Record (EHR) in the Era of Precision Medicine”. We will focus on the computational approaches, challenges and opportunities through a series of use cases.

Prerequisites: Acceptance into the DMICE BCB track or instructor permission.

INSTRUCTOR: Shannon K. McWeeney, Ph.D., Professor, Division of Biostatistics, Department of Public Health & Preventive Medicine AND Division of Bioinformatics and Computational Biology, Department of Medical Informatics and Clinical Epidemiology.
E-mail: mcweeney@ohsu.edu
Office hours: By appointment

TEXTBOOKS (REQUIRED): Presentation Zen: Simple Ideas on Presentation Design and Delivery by Garr Reynolds (2011). New Riders Press. All course related reading will be relevant current literature based on course topic (weekly assignments).

COURSE GRADING POLICY:
This course is given for a letter grade. Overall performance in the course is
based on: Class Attendance (20%), Class Participation (50%), and Individual Presentation (30%). Grading of Individual Presentations will be based on: (1) Mastery of article and its context in the field (i.e., level of preparation), (2) Presentation materials, and (3) Presentation style including ability to both answer questions and direct discussion.

Grades are based on the following criteria:
A    93-100
A-   90-92.99
B+   87-89.99
B    83-86.99
B-   80-82.99
C+   77-79.99
C    73-76.99
C-   70-72.99
F    <70

Graduate Studies in the OHSU School of Medicine is committed to providing grades to students in a timely manner. Course instructors will provide students with information in writing at the beginning of each course that describes the grading policies and procedures including but not limited to evaluation criteria, expected time needed to grade individual student examinations and type of feedback they will provide.

Class grades are due to the Registrar by the Friday following the week of finals. However, on those occasions when a grade has not been submitted by the deadline, the following procedure shall be followed:

1) The Department\(^1\) /Program Coordinator\(^2\) will immediately contact the Instructor requesting the missing grade, with a copy to the Program Director and Registrar.
2) If the grade is still overdue by the end of next week, the Department\(^1\) /Program Coordinator\(^2\) will email the Department Chair directly, with a copy to the Instructor and Program Director requesting resolution of the missing grade.
3) If, after an additional week the grade is still outstanding, the student or Department\(^1\) /Program Coordinator\(^2\) may petition the Office of Graduate students for final resolution.

\(^1\) For courses that are run by a specific department.
\(^2\) For the conjoined courses (course number is preceded by CON_ that are run by Graduate Studies.

COPYRIGHT INFORMATION:
Every reasonable effort has been made to protect the copyright requirements of materials used in this course. Class participants are warned not to copy, audio, or videotape in violation of copyright laws. Journal articles will be kept on reserve at the library or online for student access. Copyright law does allow for making one personal copy of each article from the original article. This limit also applies to electronic sources.
To comply with the fair use doctrine of the US copyright law, Sakai course sites close three weeks after grades are posted with the Registrar. Please be sure to download all course material you wish to keep before this time as you will have no further access to your courses.

DMICE COMMUNICATION POLICY:
1. If the syllabus directs the student to contact the TA before contacting the instructor, the student should do so. Otherwise, the student should contact the instructor and allow 2 business days (not including weekends) for a response.
2. If the student does not receive a response from the instructor within 2 business days, s/he should contact the TA (if there is one). When contacting the TA s/he should cc the instructor and Diane Doctor at doctord@ohsu.edu.
3. If a student does not receive a response from the TA within 1 business day (not including weekends), s/he should contact Diane Doctor at doctord@ohsu.edu and cc the instructor and the TA.
4. If Diane does not reply within 1 business day (not including weekends), the student should contact Andrea Ilg at ilgan@ohsu.edu.
5. Students having difficulties with Sakai should contact the Sakai Help Desk at sakai@ohsu.edu or at (877) 972-5249. Sakai help is available M-F from 8am to 10-pm and weekends from Noon to 5pm. Do not contact the instructor.

STUDENT ACCESS:
OHSU is committed to providing equal access to qualified students with disabilities. Student Access determines and facilitates reasonable accommodations, including academic adjustments and auxiliary aids, for students with documented disabilities. A qualified student with a disability is a person who meets the academic and technical standards requisite to admission or participation in a particular program of study. As defined by the Americans with Disability Act (ADA), a person with a disability has a physical or mental impairment that substantially limits one or more major life activities of the individual. This may include, but is not limited to, physical conditions, chronic health issues, sensory impairments, mental health conditions, learning disabilities and ADHD. Student Access works with students with disabilities from all of OHSU’s educational programs and at each campus.

Each school has an assigned Program Accommodation Liaison (PAL), who acts as an “in-house” resource for students and faculty concerning access issues for students with disabilities. The PAL works in collaboration with Student Access to implement recommended accommodations for students with disabilities.

It is recommended that you contact Student Access to consult about possible accommodations if you a) received disability accommodations in the past, b)
begin experiencing academic difficulties, and/or c) are given a new diagnosis from your healthcare provider.

Learn more about Student Access:
Phone: 503 494-0082
Email: studentaccess@ohsu.edu
Website: www.ohsu.edu/student-access

ACADEMIC HONESTY:
Course participants are expected to maintain academic honesty in their course work. Participants should refrain from seeking past published solutions to any assignments. Literature and resources (including Internet resources) employed in fulfilling assignments must be cited. See http://www.ohsu.edu/xd/education/library/research-assistance/plagiarism.cfm?WT_rank=1# for information on code of conduct for OHSU and http://www.ohsu.edu/xd/education/teaching-and-learning-center/for-students/index.cfm for more information on citing sources and recognizing plagiarism.

In an effort to uphold the principles and practice of academic honesty, faculty members at OHSU may use originality checking systems such as Turnitin to compare a student’s submitted work against multiple sources.

To protect student privacy in this process, it will be necessary to remove all personal information, i.e. student name, email address, student u-number, or any other personal information, from documents BEFORE submission.

USE OF SAKAI:
This course will have an online component, which can be accessed through Sakai, OHSU’s online course management system. For any technical questions or if you need help logging in, please contact the Sakai Help Desk.

Hours: Sakai Help Desk is available Mon – Fri, 8 am – 9 pm and weekends 12 pm – 5 pm, Pacific Time.
Contact Information:
(Toll-free) 877-972-5249
(Web) http://atech.ohsu.edu/help
(Email) sakai@ohsu.edu

COURSE COORDINATION:
The Sakai course site will be the central location for the distribution of course materials and assignment listing.

COURSE OBJECTIVES:
• To provide exposure to current topics in computational biology and bioinformatics via the primary literature;
• To emphasize critical thinking and synthesis in the participants;
• To improve oral and written presentation materials/skills.
• To improve the ability to communicate scientific topics without jargon to diverse audience.

**PRESENTER EXPECTATIONS**
- Presenter has thoroughly read assigned article and identified relevant reviews/background for class prior to week of presentation
- Presenter will contact Instructor to clarify any questions or issues prior to week of presentation
- Presenter has prepared slides/ handouts that are clear and concise. Content should include (1) relevant background; (2) key objectives and findings of paper; (3)
- Assessment of Strengths, Weaknesses and Opportunities.
- Presenter should be able to briefly describe all figures and tables.

**COURSE OUTLINE**
Week 1-2: Overview / Introduction to Topic area (Topics Assigned)
Week 3-10: Student Presentations.