GENET 591: IG2 WORKSHOP FALL 2016
1 CREDIT

Instructor information:

Jeff Essner 515-294-7133  jessner@iastate.edu  636 Science II
Aileen Keating 515-294-3849  akeating@iastate.edu  2356J Kildee Hall
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Carolyn Lawrence-Dill 515-294-4294  triffid@iastate.edu  0035B Carver Co-Lab
Clark Wolf 515-294-3068  jwcwolf@iastate.edu  435 Catt Hall

Class time: 4:10 to 5:00 p.m.  Tuesday and Thursday; first half of the semester
Location:  Science I, classroom 0277
Note: Locations for Speaker Public Seminars and Small Group talks are different

Prior to the start of class

- Divide class in to six (6) groups
- These groups remain the same throughout the course

NOTE:  Students who meet all of the course requirements AND attend all three of the small group talks for Amy Sparks, Clark Wolf, and Yaniv Erlich will be considered as having met 2 approved bioethics activities; meeting the program bioethics requirements.

GROUPS
1. Bridget Janssen, Maira Almeida, Kendra Clark, Matthew Hunt, Kevin Quinteros,
2. Laura Schultz, Honghao Bi, Tanmay Mishra, Yan Zhou
3. Beatrix Mizoguchi, Allison Birnbaum, Garrett Janzen, Nic Wheeler
4. Tesia Posekany, Mercy Kabahuma, Sharu Paul Sharma
5. Ling Sze Lee, Liz Carino, Aaron Kusmec, Yosia Mugume, Jordan Welker
6. Antony Chapman, Qiang Liu, Mark McHugh, Paul Otyama

PUBLICATIONS located here:  http://www.genetics.iastate.edu/wsf16.html

DATE:  Tuesday, September 6, 2016
Introductions and expectations

- Form into Assigned groups within the Classroom
- Assign topics to groups
- Discuss expectations of each group (including preparation by groups outside of class)
- Lead faculty member:  Jeff Essner
- All attendance documents can be turned into Linda Wild (lmwild@iastate.edu)
  o  Students should print name so that it is readable and sign or initial next to their name

DATE:  Thursday, September 8, 2016
▶ Groups may use this date, place (277 Science I) and time to discuss upcoming presentations and get to know members of your group, exchange email addresses and discuss meetings outside of class to prepare for class.

DATE:  Tuesday, Sept 13, 2016
Student Facilitators:  Schultz, Chapman
Start class on time; allow 12 minutes per group presentation, ask faculty in attendance to talk about publications that students will be reading for the following week (10 minutes) and take attendance.

Group introductory presentation for topic of intellectual property/CRISPER-gene-drives. Groups should do research outside of class and have material ready to present/discuss in class. This would be information/research independent of publications provided by speaker.

Group 3: Background
Group 4: Impact
Group 5: Possible future directions for this topic

Faculty: Clark Wolf, Philosophy and Religious Studies

DATE: Thursday, Sept 15, 2016
Student Facilitators: Posekany, Chapman

Start the class on time; allow 15 minutes per group presentation, keep discussion on target, take attendance.

Paper discussion for papers provided by Dr. Clark Wolf, Director of Bioethics, Iowa State University. Each group should come up with discussion questions for the class based on the papers and discuss these questions in class.

Group 6: Background
Group 1: Impact
Group 2: Possible future directions for this topic

DATE: Tuesday, Sept 20, 2016
Student Facilitators: Birnbaum, Wheeler

Start class on time; allow 12 minutes per group presentation, ask faculty in attendance to talk about publications that students will be reading for the following week (10 minutes) and take attendance.

Group introductory presentation for topic of assistive reproductive technology. Groups should do research outside of class and have material ready to present/discuss in class. This would be information/research independent of publications provided by speaker.

Group 1: Background
Group 2: Impact
Group 3: Possible future directions for this topic

Faculty: Aileen Keating, Animal Science

DATE: Thursday, Sept 22, 2016
Student Facilitators: Lee, Janssen

Start the class on time; allow 15 minutes per group presentation, keep discussion on target, take attendance.

Paper discussion for papers provided by Dr. Amy Sparks, University of Iowa Hospitals. Each group should come up with discussion questions for the class based on the papers and discuss these questions in class.

Group 4: Background
DATE: Tuesday, Sept 27, 2016
Student Facilitators: Otyama, Schultz
Start class on time; allow 12 minutes per group presentation, ask faculty in attendance to talk about publications that students will be reading for the following week (10 minutes) and take attendance.

Group introductory presentation for topic of personal genomics & privacy ethics in genetics. Groups should do research outside of class and have material ready to present/discuss in class. This would be information/research independent of publications provided by speaker.
Group 6: Background
Group 5: Impact
Group 4: Possible future directions for this topic
Faculty: Iddo Friedberg, VMPM

DATE: Thursday, Sept 29, 2016
Student Facilitators: Sharma, Kusmec
Start the class on time; allow 15 minutes per group presentation, keep discussion on target, take attendance.

Paper discussion for papers provided by Dr. Yaniv Erlich, Columbia University. Each group should come up with discussion questions for the class based on the papers and discuss these questions in class
Group 3: Background
Group 2: Impact
Group 1: Possible future directions for this topic

DATE: Tuesday, October 4
Public Seminar: Amy E. T. Sparks, University of Iowa
Topic: “Bioethical issues of assistive reproductive technology (ART).
4:10 p.m. in 1414 Molecular Biology
Host: Aileen Keating, Animal Science

Date: Wednesday, October 5
Small Group Talk with Amy E. T. Sparks
Time: 9:00 a.m.
Location: 1102 Molecular Biology

DATE: Friday, October 7
Public Seminar: Yaniv Erlich, Ph.D. Columbia University
Topic: “Personal Genomics & Privacy Ethics”
4:10 p.m. in 1414 Molecular Biology
Host: Carolyn Lawrence-Dill

Date: Friday, October 7
Small Group Talk with Dr. Erlich  
Time: 9:00 a.m.  
Location: 1102 Molecular Biology

**DATE:** Tuesday, October 11  
**Public Seminar:** Clark Wolf, Ph.D. Iowa State University  
**Topic:** “Intellectual Property”  
**Time:** 4:10 p.m. in 1414 Molecular Biology

**Date:** Thursday, October 13  
**Small Group Talk with Dr. Wolf; Topic:** Crisper-gene-drives and GM mosquitos  
**Time:** 4:10 p.m.  
**Location:** 277 Science I

**DATE:** Tuesday, October 18  
**Student Facilitators:** Kabahuma, Mizoguchi  
Start class on time; allow 12 minutes per group presentation, ask faculty in attendance to talk about publications that students will be reading for the following week (10 minutes) and take attendance.

Group introductory presentation for topic of future of genetics and mechanistic basis of quantitative trait variation and crop improvement  
Group 2: Background  
Group 3: Impact  
Group 4: Possible future directions for this topic  
**Faculty:** Jeff Essner, GDCB

**DATE:** Thursday, October 20  
**Student Facilitators:** Start the class on time; allow 15 minutes per group presentation, keep discussion on target, take attendance.

Paper discussion for papers provided by Dr. Randall J. Wisser, University of Delaware. Each group should come up with discussion questions for the class based on the papers and discuss these questions in class  
Group 1: Background  
Group 6: Impact  
Group 5: Possible future directions for this topic

**DATE:** Tuesday, October 25  
**Public Seminar:** Randall Wisser, Plant Genetics, University of Delaware  
**Topic:** “Future of crop improvement and quantitative trait variation”  
**Time:** 4:10 p.m.  
**Location:** 1414 Molecular Biology

**Date:** Wednesday, October 26  
**Small Group Discussion with Dr. Randall Wisser**
Time: 9:00 a.m.
Place: 1102 Molecular Biology

Expected Learning outcomes:
- Present and Future of Bioethical Issues
- Present and Future of Crop Improvement

Grading
Offered on a satisfactory-fail basis only

How do I satisfactorily pass this course?

► Attendance is required at all class meetings prior to each speaker. Read ALL assigned papers, and be prepared for discussion. Students unable to attend a discussion session due to an excusable circumstance (e.g. medical emergency, research trip) must read all papers and write an acceptable 1-page discussion of the major points for each paper. These papers should be submitted to the faculty member listed as contact for the speaker no later than November 1, 2016. These papers should address the following questions:

  - What are the basic questions that the authors attempted to answer (i.e. what hypotheses were tested?)
  - Why did the authors do the work? (significance, previous work)
  - Methodology—Was there anything particularly appropriate, powerful, unique about methods used.
  - Results: What were the most significant results that supported the author’s hypothesis? Were there any results that ran counter to the author’s hypothesis or were unexpected and led to new ideas. Were there any experiments or results that are missing, or are begging to be done?
  - Conclusions: What the authors concluded and your comments on those conclusions.
  - Future: What experiments remain to be done? How Does this affect he field? What new areas of research will this work lead to?

► Students MUST participate in group presentations and all discussions

► Attend ALL speaker seminars.
Students who miss a seminar due to an excusable circumstance (e.g. medical emergency, research trip) must read all papers and write an acceptable 2-page discussion of the major points for each paper. These papers should be submitted to the faculty member listed as contact for the speaker no later than November 1, 2016.

► Attend at least one small group talk. (Students planning to meet the two (2) approved bioethics activities will attend all small group talks (three) with Sparks, Wolf and Erlich.)

Academic Dishonesty
This class will follow Iowa State University’s policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office.
http://www.dso.iastate.edu/ja/academic/misconduct.html

**Disability Accommodation**
Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact (instructor name) to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with (instructor name), you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu. Retroactive requests for accommodations will not be honored.

**Harassment and Discrimination**
Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email dso-sas@iastate.edu, or the Office of Equal Opportunity and Compliance at 515-294-7612.

**Religious Accommodation**
If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.

**Contact Information**
If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.