

BIOST 581 A, Joint with BIOST 581 B
Statistical Genetics Seminar
Course type: Face-to-Face

Evaluation Delivery: Online
Evaluation Form: C
Responses: 6/14 (43% moderate)

Taught by: Ryan Waples, Sharon Browning
Instructor Evaluated: Ryan Waples-Other

Overall Summative Rating represents the combined responses of students to the four global summative items and is presented to provide an overall index of the class's quality:

Combined Median	Adjusted Combined Median
4.1	4.3
(0=lowest; 5=highest)	

Challenge and Engagement Index (CEI) combines student responses to several IASystem items relating to how academically challenging students found the course to be and how engaged they were:

CEI: 3.9
(1=lowest; 7=highest)

SUMMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	Adjusted Median
The course as a whole was:	6	17%	67%	17%				4.0	4.2
The course content was:	6	17%	67%		17%			4.0	4.2
The instructor's contribution to the course was:	6	50%	50%					4.5	4.7
The instructor's effectiveness in teaching the subject matter was:	6	33%	50%	17%				4.2	4.4

STUDENT ENGAGEMENT

	N	Much Higher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median
Relative to other college courses you have taken:									
Do you expect your grade in this course to be:	6		17%		83%				4.1
The intellectual challenge presented was:	6		33%	17%	33%	17%			4.5
The amount of effort you put into this course was:	6			33%	50%	17%			4.2
The amount of effort to succeed in this course was:	6			33%	50%	17%			4.2
Your involvement in course (doing assignments, attending classes, etc.) was:	6			50%	33%	17%			4.5

On average, how many hours per week have you spent on this course, including attending classes, doing readings, reviewing notes, writing papers and any other course related work?

Class median: 1.2 Hours per credit: 1.2 (N=5)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
60%	20%	20%									

From the total average hours above, how many do you consider were valuable in advancing your education?

Class median: 1.2 Hours per credit: 1.2 (N=5)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
60%	20%	20%									

What grade do you expect in this course?

Class median: 1.8 (N=5)

A (3.9-4.0)	A- (3.5-3.8)	B+ (3.2-3.4)	B (2.9-3.1)	B- (2.5-2.8)	C+ (2.2-2.4)	C (1.9-2.1)	C- (1.5-1.8)	D+ (1.2-1.4)	D (0.9-1.1)	D- (0.7-0.8)	F (0.0)	Pass	Credit 100%	No Credit

In regard to your academic program, is this course best described as:

(N=5)

In your major	A core/distribution requirement 20%	An elective 40%	In your minor	A program requirement 20%	Other 20%

STANDARD FORMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	Relative Rank
Course organization was:	6	33%	33%	17%	17%			4.0	15
Instructor's preparation for class was:	6	50%	50%					4.5	14
Instructor as a discussion leader was:	6	83%	17%					4.9	2
Instructor's contribution to discussion was:	6	83%	17%					4.9	4
Conduciveness of class atmosphere to student learning was:	6	50%	17%	17%	17%			4.5	9
Quality of questions or problems raised was:	6	50%	17%	33%				4.5	13
Student confidence in instructor's knowledge was:	6	83%	17%					4.9	3
Instructor's enthusiasm was:	6	83%	17%					4.9	1
Encouragement given students to express themselves was:	6	50%	17%	33%				4.5	11
Instructor's openness to student views was:	6	50%	50%					4.5	12
Interest level of class sessions was:	6	50%	33%		17%			4.5	5
Use of class time was:	6	33%	17%	33%	17%			3.5	18
Instructor's interest in whether students learned was:	6	50%	33%	17%				4.5	10
Amount you learned in the course was:	6	17%	33%	50%				3.5	17
Relevance and usefulness of course content were:	6	17%	67%		17%			4.0	16
Evaluative and grading techniques (tests, papers, projects, etc.) were:	6	50%	50%					4.5	6
Reasonableness of assigned work was:	6	50%	50%					4.5	7
Clarity of student responsibilities and requirements was:	6	50%	33%	17%				4.5	8

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STANDARD OPEN-ENDED QUESTIONS

Was this class intellectually stimulating? Did it stretch your thinking? Why or why not?

2. I appreciated that Ryan identified papers that had meaningful research interconnections so as to have a cohesive narrative for the quarter.
3. This class is intellectually stimulating. It stretched my thinking in genetic research in trans-ancestral populations. With both statistical methods and ethical considerations discussed, I had a more comprehensive understanding of current approaches used for genetic analysis in multi-ethnic populations.

What aspects of this class contributed most to your learning?

1. The topic was very interesting and I like reading people's thoughts on the Discussion board.
2. I appreciated that Ryan went through each student response in the discussion board and engaged in academic conversation with it in the weeks when Ryan had spare time.
3. The discussion during the seminar.

What aspects of this class detracted from your learning?

2. I often think the student paper presentations are too long and too redundant. Given that everyone has already read the paper and posted to the discussion board, I think we can jump into discussion and questions earlier.
3. In the beginning, we did the hybrid format (in person + Zoom) and it is hard for people in Zoom to hear talks in the classroom or people speaking in the classroom need to "shout". Later we transformed to Zoom only, which is better.

What suggestions do you have for improving the class?

1. It is a shame that the interaction among students is quite low. I am honestly not sure how to improve this as I am struggling with this as well. Most papers are quite challenging which I suspect makes it harder to speak up. Perhaps do short small group break-outs to discuss and share one interesting thought/question for a discussion in the group as a whole (if time permits).
2. It would be fun to hear about some student research in a coming quarter. Also, I'd like to see that the readings have a page length. For students first attending this journal club, the longer papers with more than 10 pages can be overwhelming.
3. Instructors may suggest some questions to discuss.

IASystem Course Summary Reports summarize student ratings of a particular course or combination of courses. They provide a rich perspective on student views by reporting responses in three ways: as frequency distributions, average ratings, and either comparative or adjusted ratings. Remember in interpreting results that it is important to keep in mind the number of students who evaluated the course relative to the total course enrollment as shown on the upper right-hand corner of the report.

Frequency distributions. The percentage of students who selected each response choice is displayed for each item. Percentages are based on the number of students who answered the respective item rather than the number of students who evaluated the course because individual item response is optional.

Median ratings. IASystem reports average ratings in the form of item medians. Although means are a more familiar type of average than medians, they are less accurate in summarizing student ratings. This is because ratings distributions tend to be strongly skewed. That is, most of the ratings are at the high end of the scale and trail off to the low end.

The median indicates the point on the rating scale at which half of the students selected higher ratings, and half selected lower. Medians are computed to one decimal place by interpolation.¹ In general, higher medians reflect more favorable ratings. To interpret median ratings, compare the value of each median to the respective response scale: *Very Poor, Poor, Fair, Good, Very Good, Excellent (0-5); Never/None/Much Lower, About Half/Average, Always/Great/Much Higher (1-7); Slight, Moderate, Considerable, Extensive (1-4)*.

Comparative ratings. IASystem provides a normative comparison for each item by reporting the decile rank of the item median. Decile ranks compare the median rating of a particular item to ratings of the same item over the previous two academic years in all classes at the institution and within the college, school, or division. Decile ranks are shown only for items with sufficient normative data.

Decile ranks range from 0 (lowest) to 9 (highest). For all items, higher medians yield higher decile ranks. The 0 decile rank indicates an item median in the lowest 10% of all scores. A decile rank of 1 indicates a median above the bottom 10% and below the top 80%. A decile rank of 9 indicates a median in the top 10% of all scores. Because average ratings tend to be high, a rating of "good" or "average" may have a low decile rank.

Adjusted ratings. Research has shown that student ratings may be somewhat influenced by factors such as class size, expected grade, and reason for enrollment. To correct for this, IASystem reports **adjusted medians** for summative items (items #1-4 and their combined global rating) based on regression analyses of ratings over the previous two academic years in all classes at the respective institution. If large classes at the institution tend to be rated lower than small classes, for example, the adjusted medians for large classes will be slightly higher than their unadjusted medians.

When adjusted ratings are displayed for summative items, **relative rank** is displayed for the more specific (formative) items. Rankings serve as a guide in directing instructional improvement efforts. The top ranked items (1, 2, 3, etc.) represent areas that are going well from a student perspective; whereas the bottom ranked items (18, 17, 16, etc.) represent areas in which the instructor may want to make changes. Relative ranks are computed by first standardizing each item (subtracting the overall institutional average from the item rating for the particular course, then dividing by the standard deviation of the ratings across all courses) and then ranking those standardized scores.

Challenge and Engagement Index (CEI). Several IASystem items ask students how academically challenging they found the course to be. IASystem calculates the average of these items and reports them as a single index. *The Challenge and Engagement Index (CEI)* correlates only modestly with the global rating (median of items 1-4).

Optional Items. Student responses to instructor-supplied items are summarized at the end of the evaluation report. Median responses should be interpreted in light of the specific item text and response scale used (response values 1-6 on paper evaluation forms).

¹ For the specific method, see, for example, Guilford, J.P. (1965). *Fundamental statistics in psychology and education*. New York: McGraw-Hill Book Company, pp. 49-53.