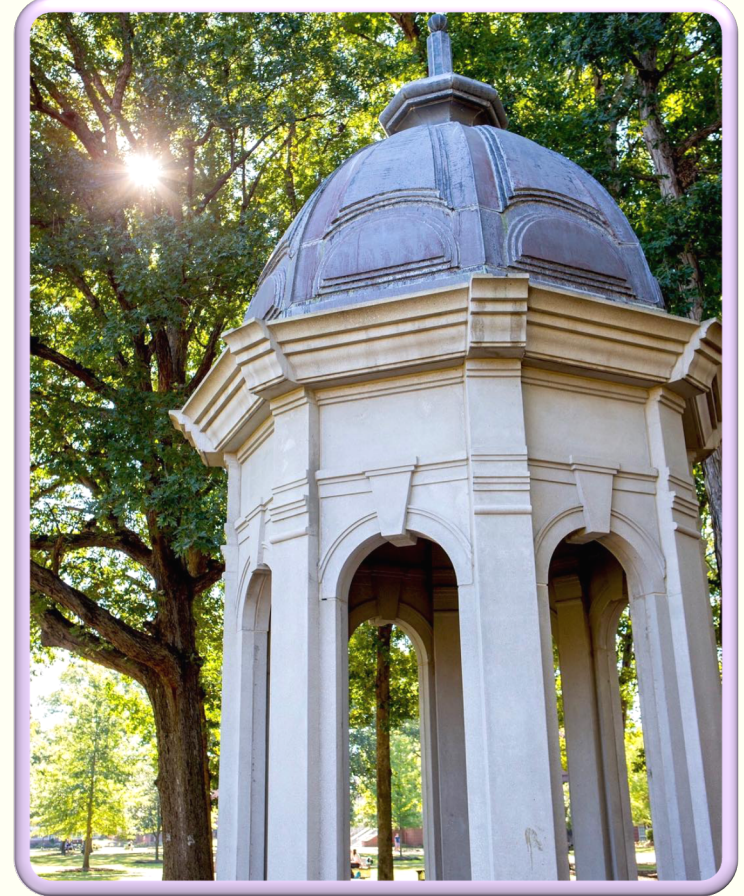


Engaging Faculty in General Education Assessment

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East Carolina University
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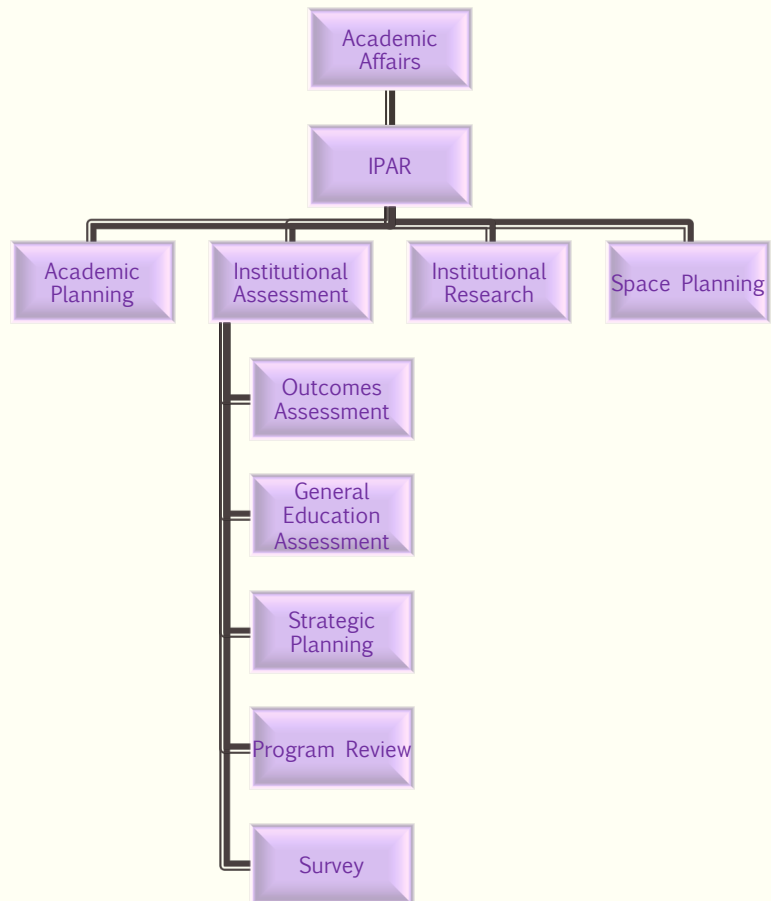


East Carolina University

- Public, four-year university established in 1907
- One of 17 constituent institutions within the University of North Carolina (UNC) System
- Located in Greenville, North Carolina
- Serving a largely rural underserved population
- Fall 2019: 28,651 students
 - 23,081 undergraduates
 - 5,570 graduate students



About Us



Presentation Outline

- General Education Program and Assessment Process at ECU
- Responsibilities of Institutional Assessment and Faculty
- Importance of Faculty Engagement in General Education Assessment
- Strategies to Engage Faculty
- Q&A

General Education Program & Competency Areas



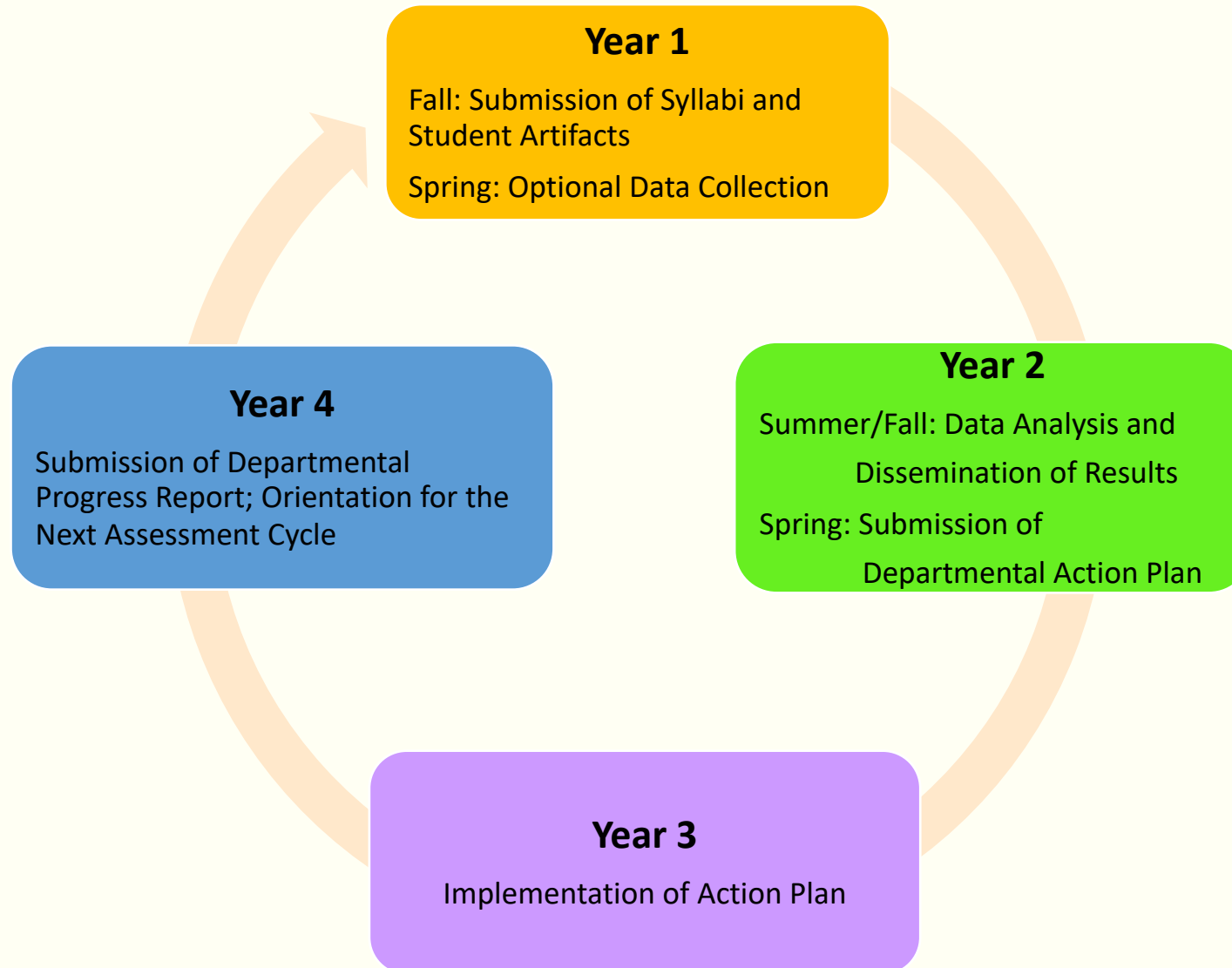
- 7 Competencies
- Over 400 Courses
- Credit hour requirements: 40
 - Humanities: 9
 - Natural Sciences: 7
 - Social Sciences: 9
 - Health: 3
 - Written: 6
 - Math: 3
 - Elective: 3

General Education Assessment Process at ECU

- Moving from course-level assessment, ECU designed a program-level assessment process in 2015-16 and implementation began in 2016-17.



General Education Assessment Process at ECU



GE Assessment Schedule (2016-2020)

| Fall 2016 – Spring 2017 | Fall 2017 – Spring 2018 | Fall 2018 – Spring 2019 | Fall 2019 – Spring 2020 |
|--|--|---|--|
| Data Collection Mathematics Written Communication | Data Collection Natural Sciences Health Promotion/Physical Activity | Data Collection Social Sciences Fine Arts | Data Collection Humanities |
| | Review & Action Plan Mathematics Written Communication | Review & Action Plan Natural Sciences Health Promotion/Physical Activity | Review & Action Plan Social Sciences Fine Arts |
| | | Implementation of Action Plan Mathematics Written Communication | Implementation of Action Plan Natural Sciences Health Promotion/Physical Activity |
| | | | Departmental Reporting Mathematics Written Communication |

Responsibilities of Institutional Assessment and Faculty

- Characteristics of General Education Assessment
 - Course-embedded, faculty-led, student learning focused, and improvement-oriented.
- IA's Responsibilities
 - Facilitate data collection
 - Conduct analyses
 - Write reports and create infographics
 - Disseminate results and action plans to campus stakeholders
- Faculty's Responsibilities
 - Identify courses and student artifacts
 - Interpret the results
 - Develop and implement action plans
 - Write progress reports

Faculty Engagement in General Education Assessment

Faculty Engagement

- Central and critical element in a successful assessment process*
 - Ties assessment to the classroom experiences
 - Makes it more likely that assessment will be used for improvement
 - Centers faculty ownership of teaching and learning in assessment
 - Can affect institutional culture of learning assessment
- Persistent challenge on many campuses*
 - View assessment as disconnected from their teaching responsibilities
 - Oriented toward external accountability
 - Threat to academic freedom
 - Useless busywork
 - Unnecessary administrative burden
- GE program
 - Usually no clear organizational home and no loyal faculty community **

* Cain, T. R., & Hutchings, P. (2013, October). Faculty buy-in and engagement: Reframing the conversation around faculty roles in assessment. Assessment Institute, Indianapolis (Presentation).

** Stevenson, J. F., Hicks, S. J., & Hubbard, A. (2016). Evaluating a general education program in transition. *New Directions for Evaluation*, 2016(151), 37-51.

Strategies to Engage Faculty

ECU Process Improvements

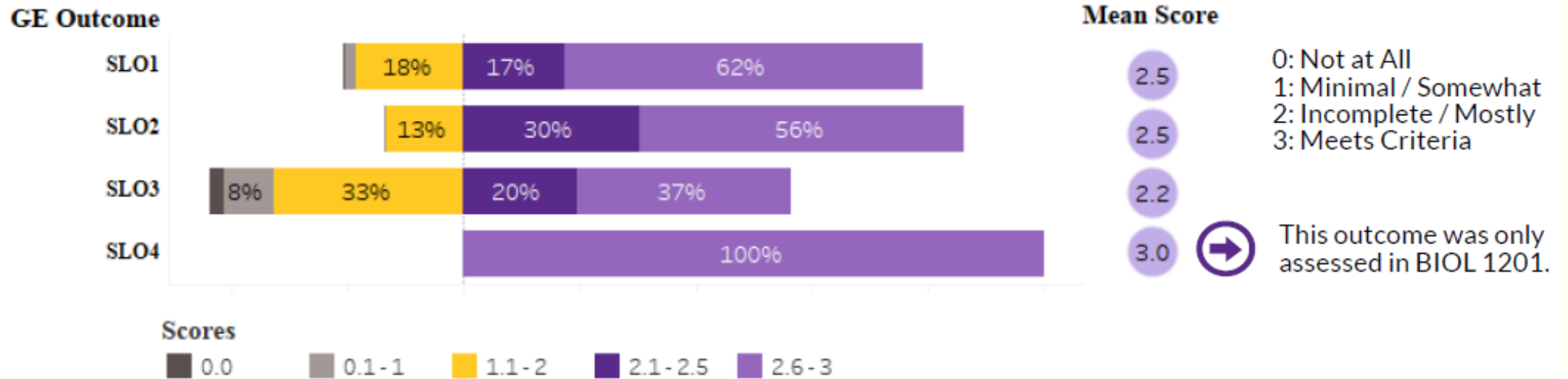
- Focus on improvement, rather than as external mandate
- A longer, manageable process that allows faculty enough time to discuss results, develop action plans, implement action plans, and evaluate the action plan progress
- Encourage faculty ownership in the assessment process
- Take advantage of institutional or departmental initiatives

Technical Support

- Encourage the use of existing assignments to collect data
- Meet faculty where they are
- Leverage faculty research/grant opportunities
- Leverage institutional data
- Answer additional research questions from faculty
- Provide a drill-down analysis of the data
- Provide as much technology-related assistance as possible

Meet Faculty Where They Are

◆ Natural Sciences: Learning Outcome Results (N=1,339)



SLO 1: Natural Phenomena and Scientific Problems

SLO 2: Hypothesis Testing

SLO 3: Scientific Inquiry

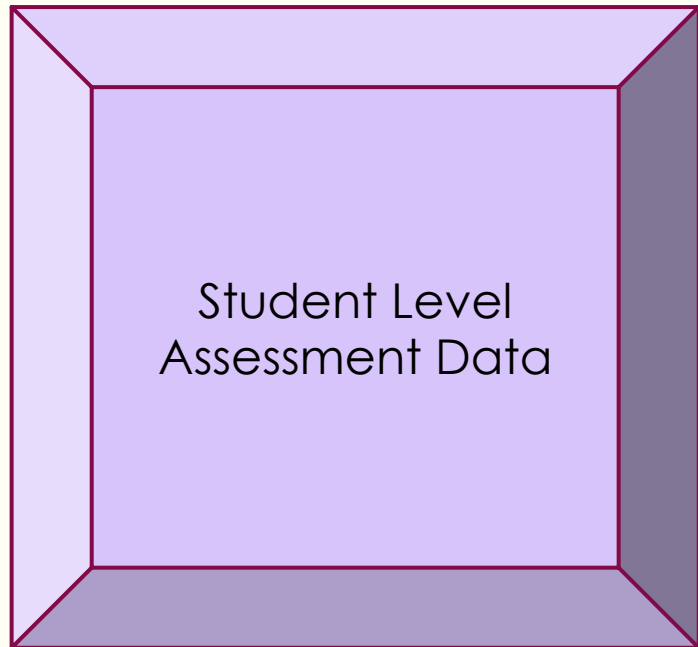
SLO 4: Societal Issues

Meet Faculty Where They Are

Natural Sciences Action Plan

- SLO4 was assessed in for biology and the CFS was met. SLO4 was only assessed in Biology 1201 in Fall 2018 and there were only 63 lab report ratings collected. The smaller number of lab reports that were aligned to SLO4 may not reflect all students' capability with regard to GE Natural Science Outcome 4. In addition, the rubric only includes one item (Item 5.0 on the BIOL 1201 Rubric) to assess this SLO, and all students scored 3 out of 3 points on this item.
- Geology will implement the revised curriculum in fall of 2020 which will include material directly related to SLO4. Biology 1201 and Geology 1501 will be used to assess SLO4. The rubric will be expanded to include at least three items related to societal impact. Using two courses and increased rubric detail will provide a more meaningful and generalizable assessment of SLO4.

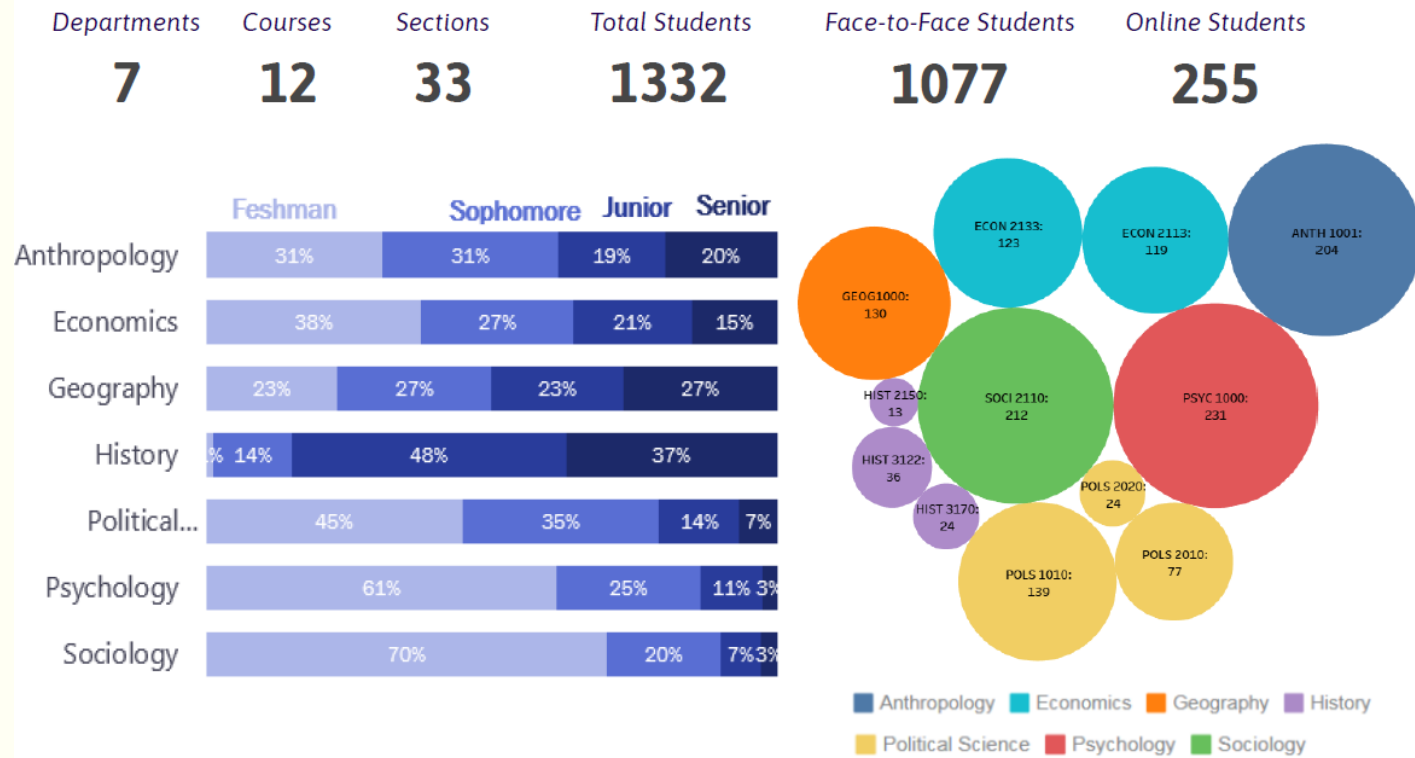
Leverage Institutional Data



| | | |
|----------------------|-------------------------|-----------------|
| Demographic Data | Pell Status | Transfer Status |
| FT/PT Status | Intended Major | GPA |
| Rural Status | Cumulative Earned Hours | Instructor Type |
| Instructional Method | Attempts | D/F/W Rates |
| Remediation Course | Course ID | Weighted HS GPA |

Leverage Institutional Data

◆ Sample



◆ Sample Profile



47% of the students are female
 38% are Pell grant recipients
 44% are rural students



Average weighted HS GPA is 3.7
 Average course load is 14.6 hours
 29% are Juniors or Seniors

Leverage Institutional Data

SLO 1

SLO 2

SLO 3

Results by Delivery Mode and Department

Face-to-Face

Online

Face-to-Face

Online

Face-to-Face

Online

100%
90%
87%
36%

100%
88%
80%
47%

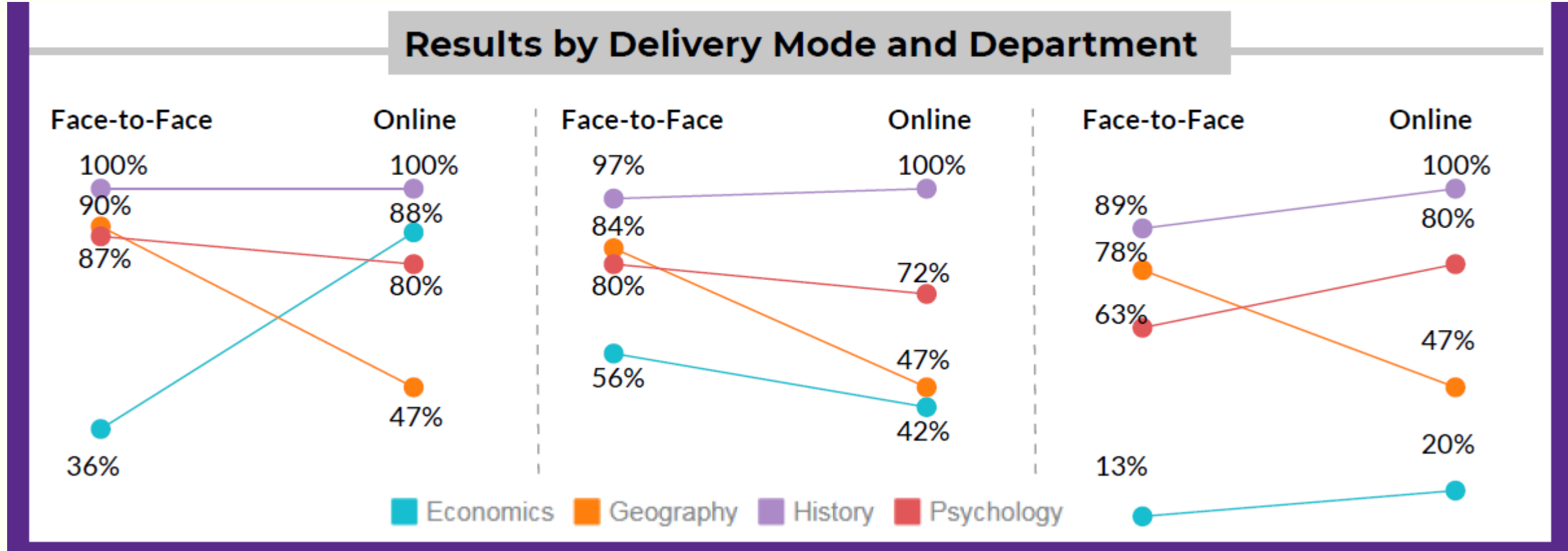
97%
84%
80%
56%

100%
72%
47%
42%

89%
78%
63%
13%

100%
80%
47%
20%

■ Economics ■ Geography ■ History ■ Psychology



Leverage Institutional Data

Mathematics (Quantitative Reasoning) 2016-2017

Multiple Regression Results

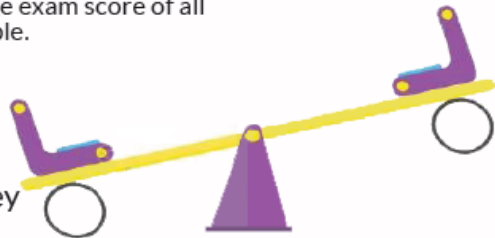
The total final exam scores were used.

Comparisons were made in reference to the weighted average exam score of all students in the sample.



Students scored lower if they

- took remedial Math 0045
- were Pell Grant recipients
- came from rural areas
- were sophomores
- or had waited more than one year to take Math 1065 for the first time



Students scored higher if they

- had not taken remedial Math
- were not Pell Grant recipients
- came from out of state or urban areas
- had waited one semester up to one year to take the course for the first time
- had higher unweighted HS GPAs



Over one-third of the students taking the final exam did not pass the final exam.


(70 out of 100 = Passing)

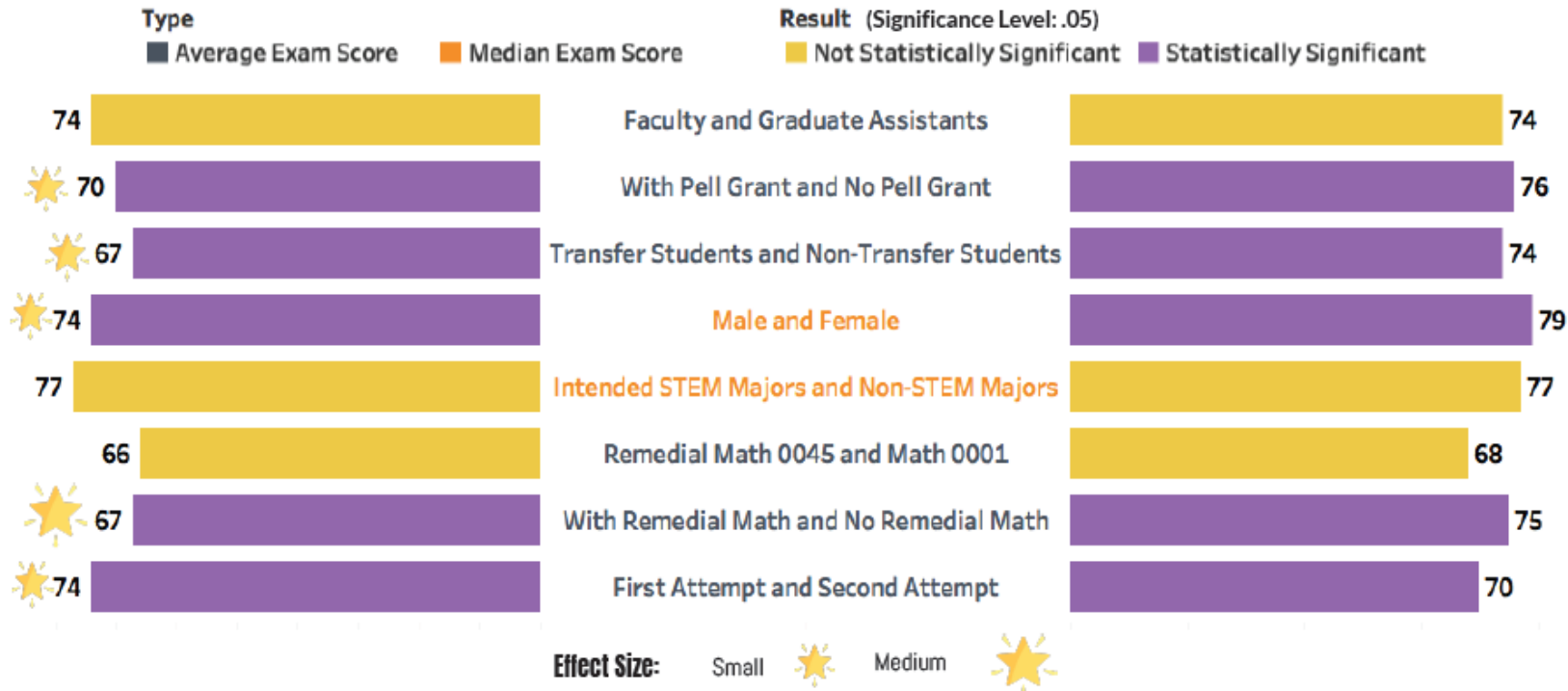
Action Plan

- The unit was not surprised to learn that students scored higher if they waited one semester (up to 1 year) to take Math 1065 for the first time. Many freshmen spend their first semester learning how to be successful at ECU (spending time outside of class to study, looking ahead to be prepared for class, learning how to manage time wisely, etc). Math 1065 students need to be proficient in these things in order to be successful.
- The unit plans to share this finding with advising. Hopefully this will encourage students to wait at least 1 semester before attempting Math 1065 if their programs will allow it (not delay their graduation date).

Answer Additional Research Questions from Faculty

Group Comparisons

 The total final exam scores were used to compare the performance of various groups of students. A statistically significant difference means the difference is not likely to have happened by chance.



Action Plan

- The unit plans to investigate the topics being taught in remedial math to see if changes need to be made in order to increase student success in Math 1065.
- The unit also plans to try other approaches to remediation: co-remediation approach.

Provide a Drill-down Analysis of the Data

| GE SLOs | Rubric Items | 0 (Not at ALL) | 1 (Minimal) | 2 (Incomplete) | 3 (Meets Criteria) |
|---------|---|----------------|-------------|----------------|--------------------|
| SLO 1 | R1.1ScienceConcept | 1% | 7% | 34% | 58% |
| | R1.2Accuracy | 1% | 4% | 20% | 76% |
| | R1.4LinkQuestiontoScienceConcept | 1% | 5% | 50% | 45% |
| SLO 2 | R2.1Procedure | 0% | 5% | 31% | 64% |
| | R2.2Whatdataandwhy | 0% | 5% | 41% | 55% |
| | R2.3DataAnalysis | 3% | 20% | 42% | 35% |
| | R2.4ReduceError | 3% | 7% | 29% | 61% |
| | R3.1Claim | 1% | 2% | 16% | 81% |
| | R3.2UsedEvidence | 6% | 7% | 28% | 60% |
| | R3.4aDataPresentation | 2% | 15% | 38% | 45% |
| | R3.4bSignificantFiguresandUnits | 1% | 11% | 43% | 45% |
| | R4.4CorrectTerms | 0% | 2% | 38% | 60% |
| SLO 3 | R3.5aJustificationoftheEvidence | 14% | 12% | 46% | 28% |
| | R3.5bDefendsEvidencewithScience Concept | 19% | 19% | 44% | 18% |
| | R3.6AgreementwithPeers | 8% | 8% | 20% | 64% |

Action Plan

- The curricular materials have been revised to include additional information on the nature of a scientific argument and the critical elements – claim, evidence and justification. These are the rubric items used to evaluate SLO3.

Provide a Drill-Down Analysis of the Data

Table 2

Percentage of Correct Responses for Each Question by Learning Outcome in HLTH 1000

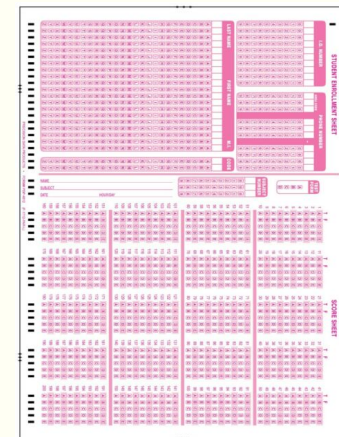
| Outcomes | Tracking Questions | Spring 2018 |
|----------|---|-------------|
| 1 | # 1: The most <u>important</u> resource to keep you safe at <u>ECU</u> is/are | 99% |
| | # 3: A <u>psychologically healthy</u> person is | 94% |
| | # 7: The aspect of <u>personal health</u> that is most within your control is | 97% |
| | # 8: Which of the following is true with respect to health | 93% |
| | # 9: The ___ are the <u>greatest</u> source of infectious disease transmission | 90% |
| | # 10: Jessica engages in several health-risk behaviors, including smoking, lack of physical activity, and poor diet. If she chooses to change only one of these behaviors, which change will have the <u>biggest impact</u> on reducing her risk of developing a chronic disease? | 64% |
| | # 13: Regular aerobic exercise improves the functioning of the | 92% |
| | # 14: Exercise helps with weight control by increasing the <u>body's</u> | 68% |
| | # 15: Sierra, now 31, has been trying to get pregnant since she got married <u>4</u> years ago. Her doctor suspects that their infertility problem was <u>likely caused</u> by her history of <u>PID</u> from the most commonly reported <u>STI</u> . During her early 20s, Sierra had contracted | 66% |

Health Action Plan

- Question 15 – This question is covered in our face-to-face STIs lesson. This question has given us problems in the past because it was not directly clear on my master slide set. I therefore made it a separate slide to stress the importance that early detection can prevent long-term damage and possible infertility or sterility.
- In viewing the question just now, I realized that PID is abbreviated where it should be both pelvic inflammatory disease (PID). I bet if I spell it out in the future more students will get this question correct.

Provide as much technology-related assistance as possible

- Learning management system
 - Blackboard and Canvas
 - Examples:
 - Create exams
 - Build rubrics
 - Steps to grade assignments using a rubric
- Scantron
 - Work with ICTS
 - Request form
 - Data sharing



Blackboard

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