To: Candidates for Tenure and/or Promotion in the College of Natural and Health Sciences
From: College of Natural and Health Sciences Tenure & Promotion Committee
Date: Summer 2019
Subject: Best Practices for Self-Reflection & Portfolio Development

The members of the College of Natural and Health Sciences Tenure and Promotion Committee have compiled the following information based on years of reviewing successful portfolios for tenure and/or promotion. These items represent best practices that facilitate 1) candidates' ability to conduct rigorous self-reflective analyses of their performance in each of the three areas of evaluation, and 2) effective communication of this information through written narratives and purposefully designed graphs and tables. These suggestions exceed the portfolio requirements as described in the Faculty Handbook in some cases, but nonetheless aid considerably in the development and review of portfolios.

General – The following are some basic guidelines regarding portfolio structure and composition which will enable candidates to analyze and reflect upon their performance, while also enabling reviewers at all institutional levels to extract meaningful information from the candidate portfolio.

1. Main Narrative
   - Adhere to suggested lengths as specified in the Faculty Handbook:
     o Pre-tenure: 5-7 single-spaced pages
     o Tenure and Promotion: 7-10 single-spaced pages
2. Supplemental Narratives
   - Supplemental Narratives in each section of the portfolio (i.e., Teaching, Service/Student Involvement, Scholarship) are not required, but recommended if the candidate needs to expound on information provided in the Main Narrative for a particular section of the portfolio.
   - Suggested Supplemental Narrative:
     o Analysis and graphical presentation of Course Perception Survey Data, if doing so in the Main Narrative would exceed suggested page limits.
3. Document Format
   - All documentation should be provided in PDF format.
4. Disciplinary Content
   - Diverse academic disciplines have diverse forms of work-product. Therefore, it is not expected that any candidate will have relevant contributions for every possible review item delineated in the Faculty Handbook. Candidates should not feel obligated to populate all folders within the review portfolio.

Teaching – Self-reflection in teaching is aided by analysis and interpretation of student survey data, and where appropriate, engagement with pedagogical resources and research on methods of pedagogical improvement. These efforts should be reflected in the tenure and/or promotion application.

1. Course Perception Survey Data
   - Average Student Survey Ratings over Time
     - Class Climate survey results provide different scores for overall ratings of the "course" and the "professor" near the top of the survey results page. Changes in perceptions of each of these are potentially informative regarding performance in teaching and so should be included in the T&P application.
   - Suggested Graphs
     o Survey scores for "course" and "professor" plotted with respect to time for _each_ course taught.
       ▪ Figure 1: "Courses through Time"
     o Average survey scores for "course" and "professor" plotted with respect to time for _all_ courses taught.
   - Recommendations
     o Provide written interpretation of and reflection on these data within the narrative sections of the portfolio.
     o Include reference scores from the Department and College with respect to time. Contact the Dean's Office to obtain these data if necessary.
     o Ensure that y-axis scales are consistent among submitted graphs to facilitate evaluation.
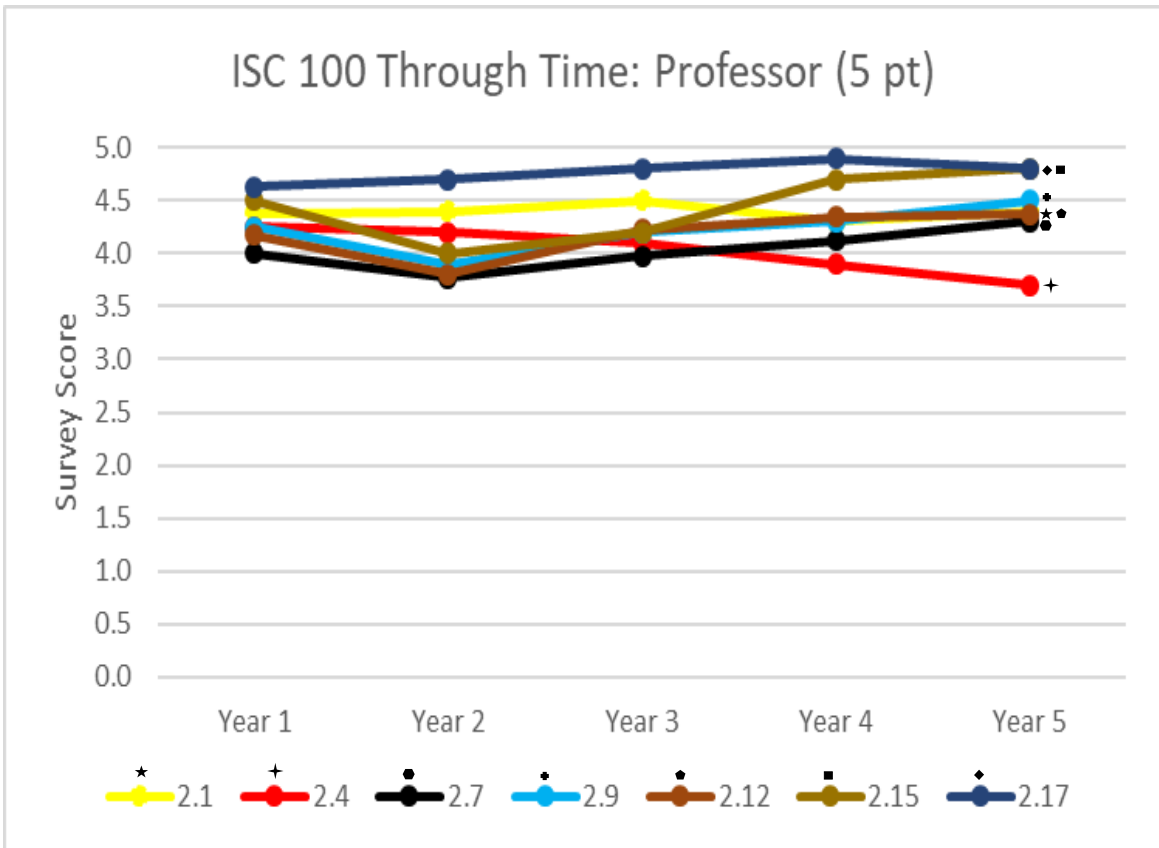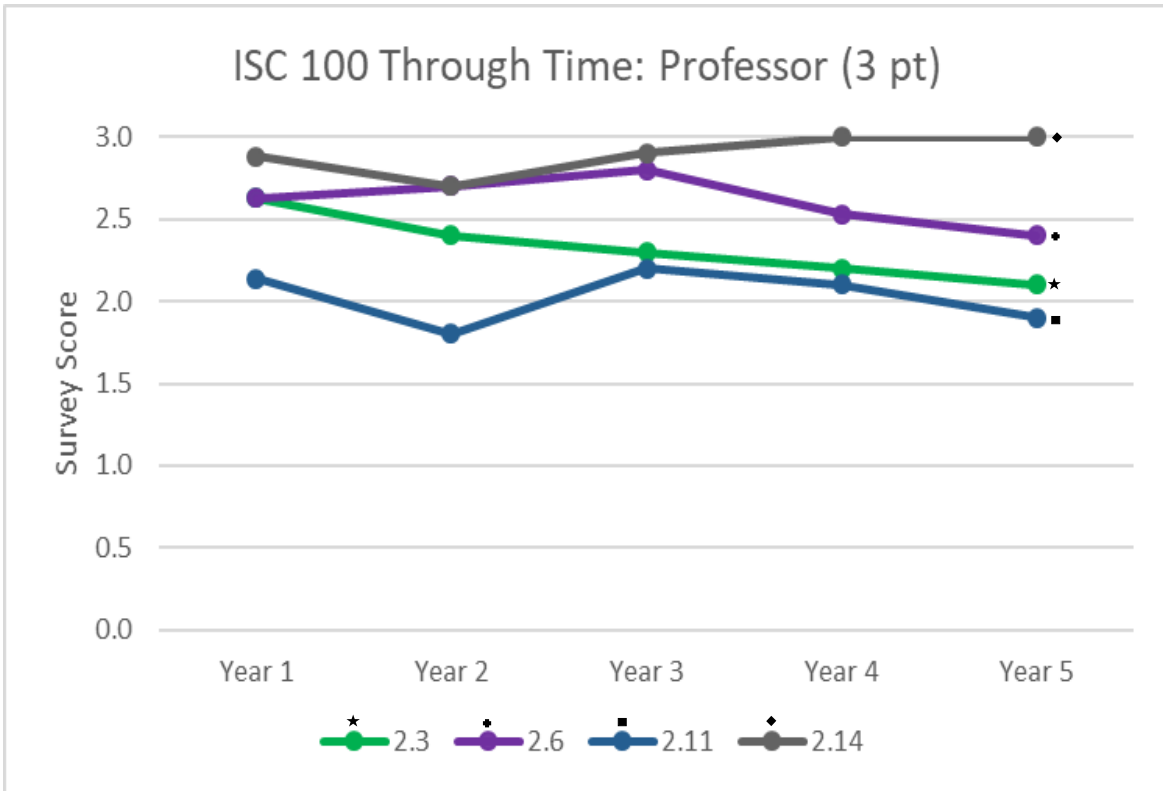
Courses Through Time
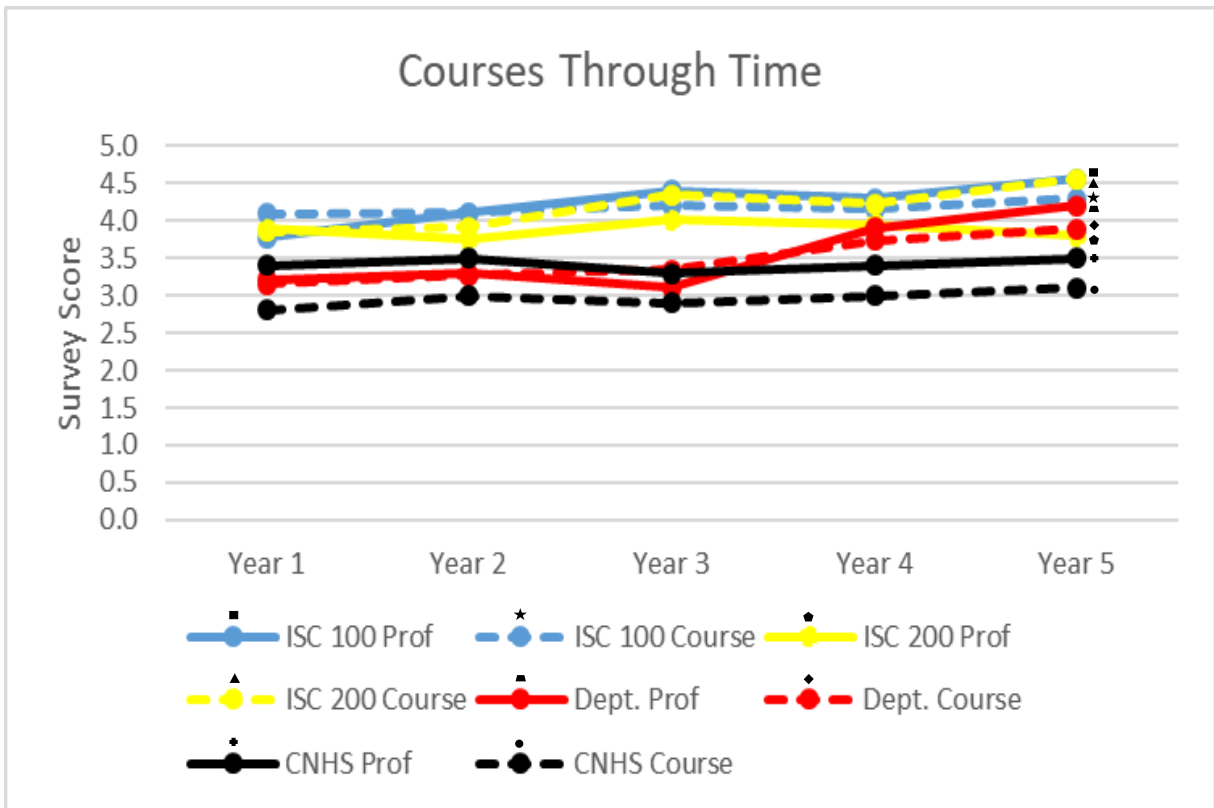
Figure 1. "Course" and "Professor" scores through time for courses taught with Department and College reference values.

- Student Survey Data by Question
  - Student responses to specific questions may change through time and so are potentially informative regarding changing performance in teaching either within individual courses or across all courses taught.
  - Suggested Graphs
    - o Scores for individual questions related to the "Course" plotted with respect to time for _each_ course taught.
      - ▪ Figure 2: "ISC 100 Through Time: Course"
    - o Scores for individual questions related to the "Professor" plotted with respect to time for _each_ course taught.
      - ▪ Figure 3: "ISC 100 Through Time: Professor"
    - o Average survey scores for individual questions related to the "Course" plotted with respect to time for _all_ courses taught.
    - o Average survey scores for individual questions related to the "Professor" plotted with respect to time for _all_ courses taught.
  - Recommendations
    - o Provide written interpretation of and reflection on these data within the narrative sections of the portfolio.
    - o Ensure that y-axis scales are consistent among submitted graphs to facilitate evaluation.
    - o Split survey data into separate graphs for questions with 3- and 5-point values.
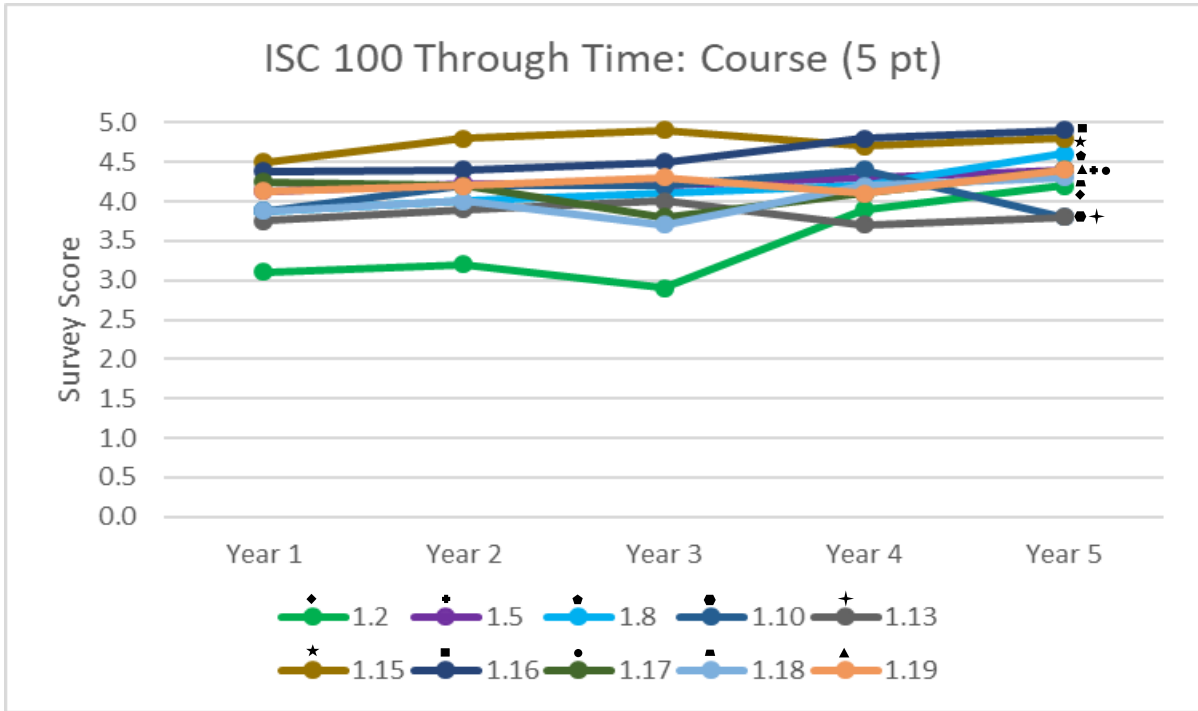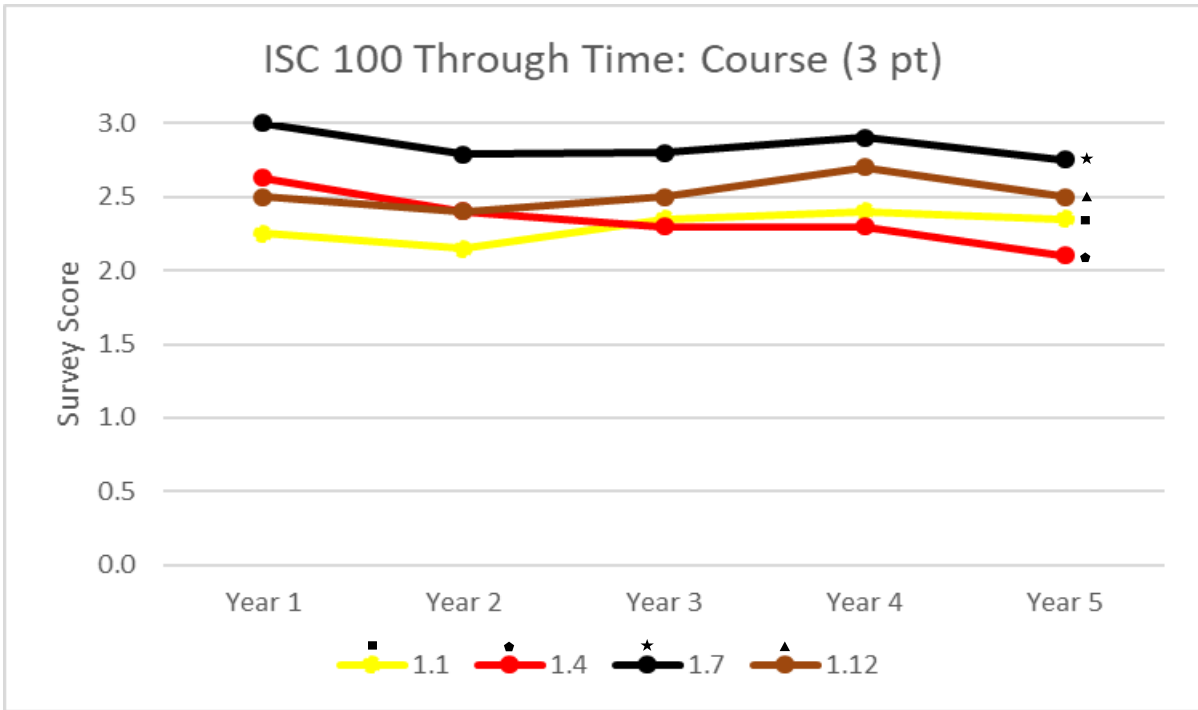
Figure 2. Scores from ISC 100 for individual 3 point (upper) and 5 point (lower) questions related to the "Course" through time.

Figure 3. Scores from ISC 100 for individual 3 point (upper) and 5 point (lower) questions related to the "Professor" through time.

- Grade Distributions through Time and by Course
  - o Grade distributions through time may be indicative of numerous phenomena that are important to evaluating teaching strategies and student perceptions.
  - o Suggested Graphs
    - ▪ Histogram of grade distributions with respect to time for _each_ course taught.
      - Histograms particularly lend themselves to representation of this type of data, though other formats are also acceptable as long as the data presented are clear.
    - ▪ Figure 4: "ISC 100 Grade Distribution"
  - o Recommendations
    - Provide written interpretation of and reflection on these data within the narrative sections of the portfolio.
    - ▪ Graphs should present students by % (not number, which may obscure patterns in lower enrollment courses).
    - ▪ Ensure that y-axis scales are consistent among submitted graphs to facilitate evaluation.
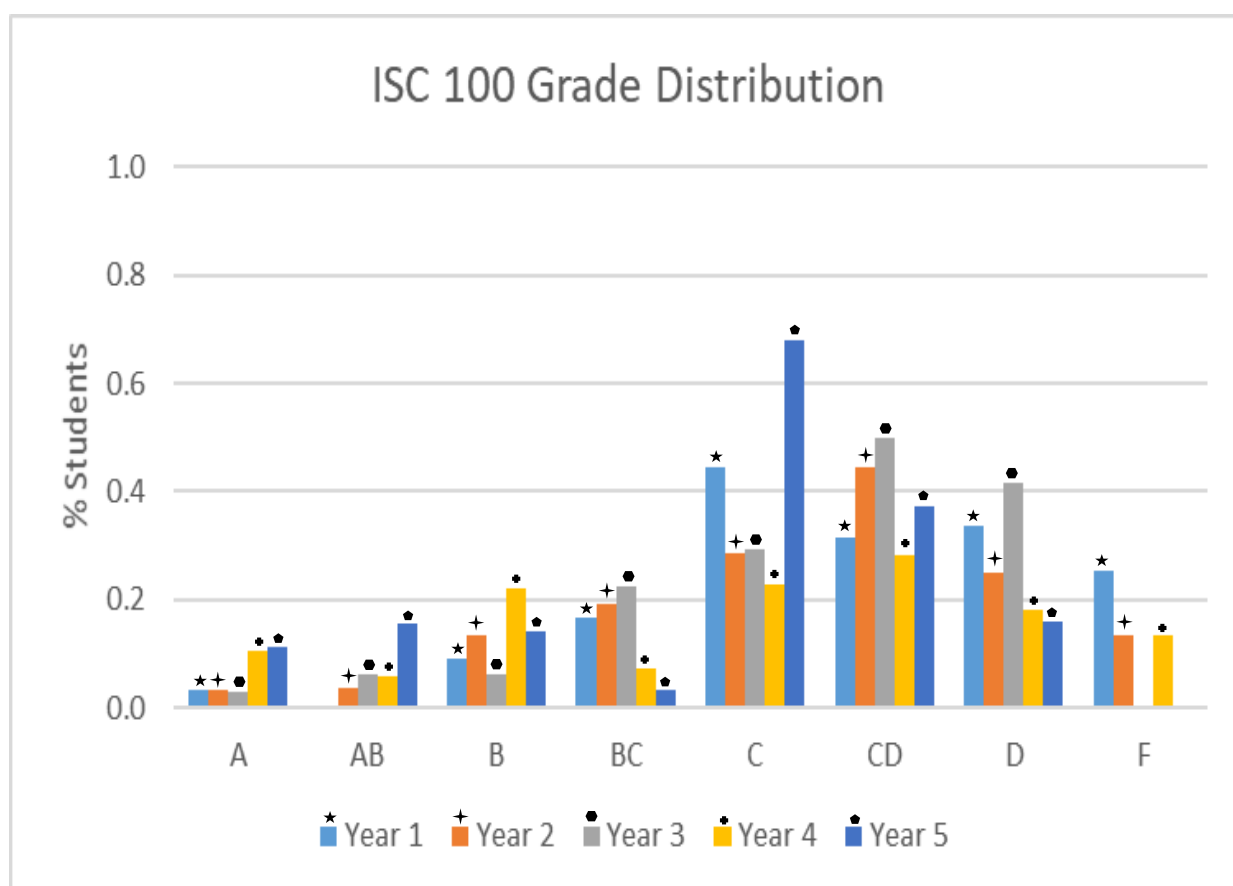
Figure 4. Grade distribution for ISC 100 through time.

- Course GPA Data through Time
  - o While the committee recognizes that many factors affect a course GPA, trends in grades through time are potentially informative regarding performance in teaching and so are expected in T&P applications.
  - o Suggested Graphs
    - ▪ Course GPA plotted with respect to time for _each_ course taught.
      - Figure 5: "Course GPA Through Time"

- o Recommendations
  - Provide written interpretation of and reflection on these data within the narrative sections of the portfolio.
  - Ensure that y-axis scales are consistent among submitted graphs to facilitate evaluation.
  - Include a table containing number of students in each course to facilitate assessment of relationship between class size and GPA.
   - Table 1: "Class Sizes Through Time"
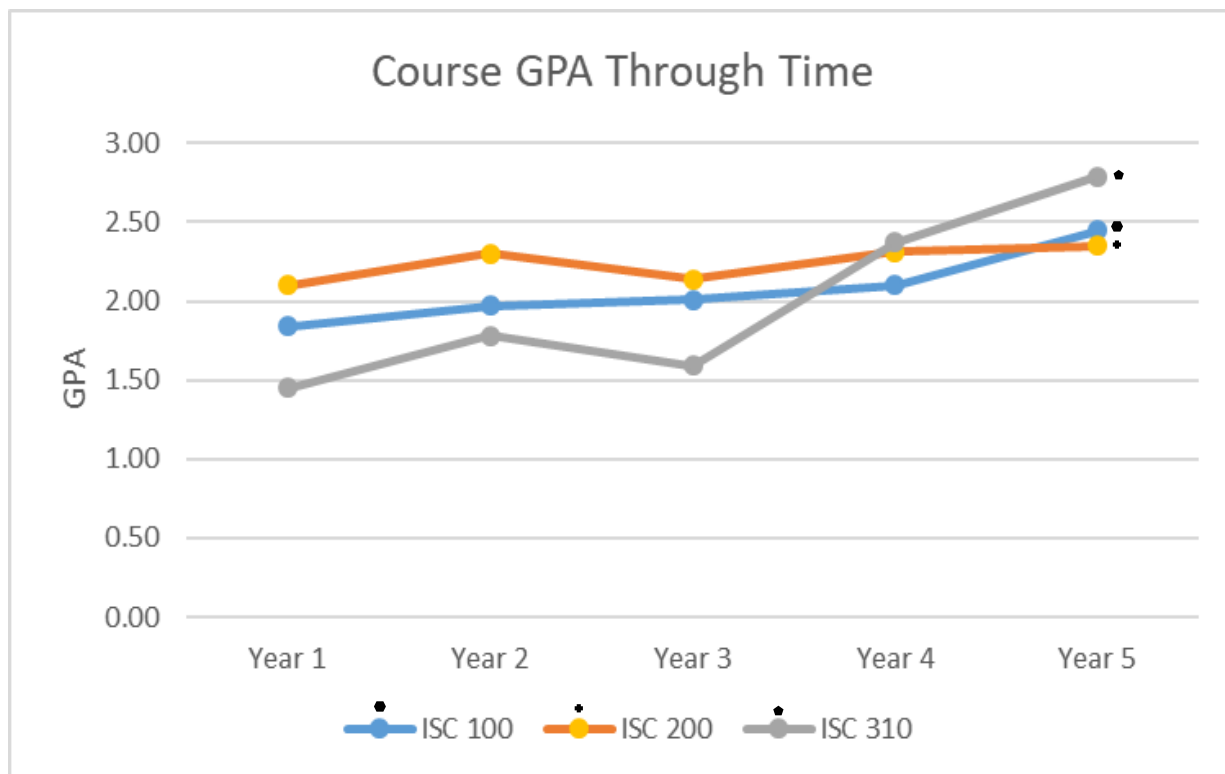
Figure 5. Course GPA through time.

Course	# Students Year 1	# Students Year 2	# Students Year 3	# Students Year 4	# Students Year 5
ISC 100	32	32	45	45	60
ISC 200	27	24	31	32	31
ISC 310	18	19	14	15	21

Table 1. Class sizes through time.

- More Detailed Analyses where appropriate
  - o When Pre-Tenure reviews identify concerns regarding teaching in a specific course, or regarding a particular aspect of teaching (e.g., assignments), subsequent analyses should address particular data that allow evaluation of progress in this area.
  - o Example Scenario
    - In a pre-tenure evaluation, Dr. Smith was advised that student perceptions regarding the helpfulness of assignments (Class Climate survey question #1.2) in course ISC 100 were below average. Following consultation with department colleagues, Dr. Smith revised assignments at the beginning of Year 4, resulting in improved performance as evident in student perceptions.

- Figure 6: "ISC 100: Q1.2 Through Time"
    - o Recommendation
        - Provide written interpretation of and reflection on these data within the narrative sections of the portfolio.
        - Provide brief summary of reasons for changes within figure caption.
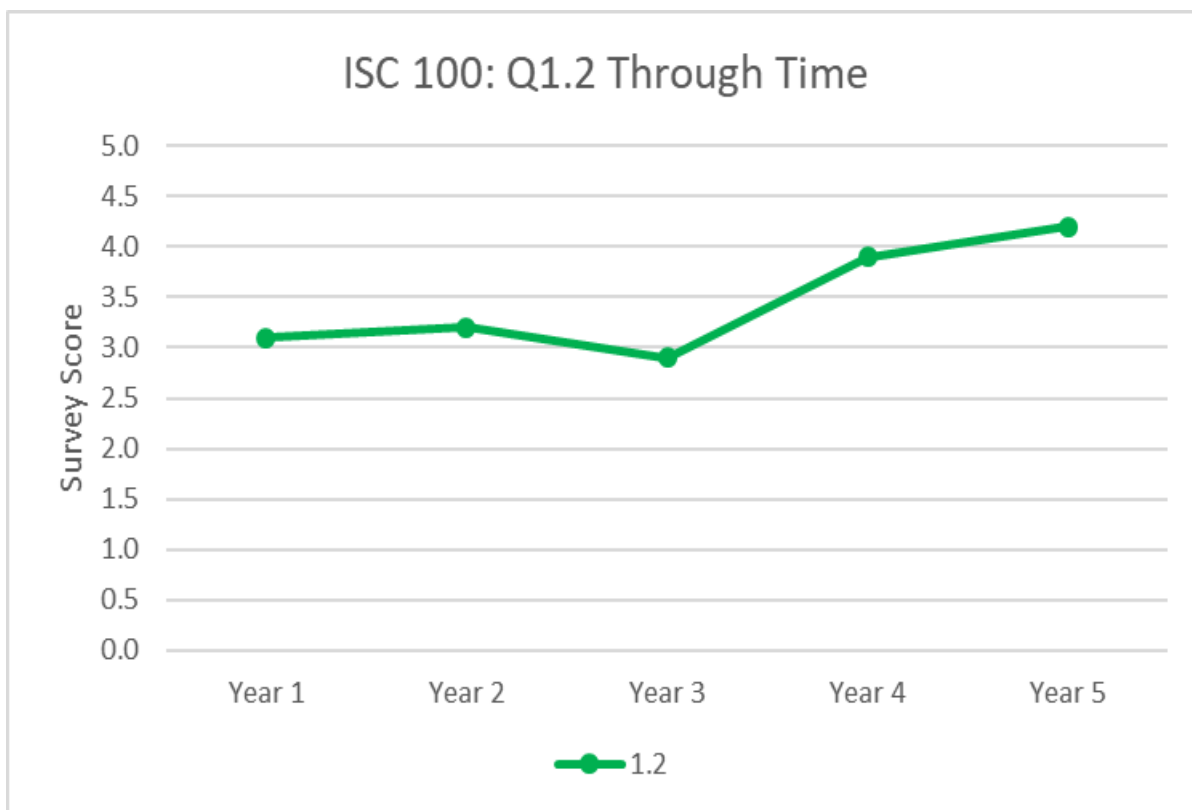
Figure 6. Score for survey question 1.2 through time in ISC 100. Changes in student perception as of Year 4 due to consultation with colleagues and resulting revisions to course assignments.

- Comparison of Student Performance to National or Institutional benchmarks
    - o When benchmarks are available (e.g., ACS standardized chemistry exam, Nursing ATI exam), comparisons of candidates' course performance on such exams to these benchmarks allow substantive assessment of teaching effectiveness.
    - o Suggested Graphs
        - Graph type may vary with respect to the format of benchmark data available to the candidate.
            - Figure 7: "Benchmark Comparison"
    - o Recommendations
        - Provide written interpretation of and reflection on these data within the narrative sections of the portfolio.
        - Provide brief summary of reasons for changes within figure caption.
        - Include error bars to represent variance in benchmark data wherever possible.
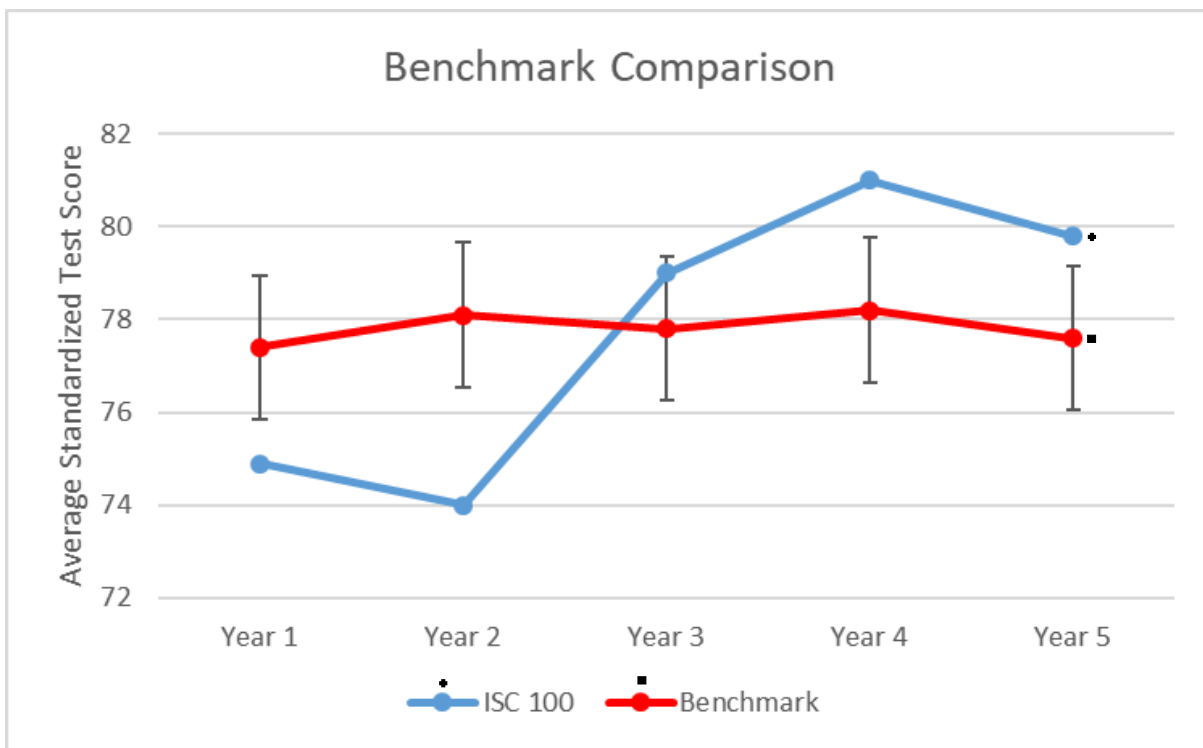
Figure 7. Student performance on standardized disciplinary exam with national benchmark scores for comparison. Increased student performance beginning in Year 3 is associated with revision of pedagogical strategy.

2. Pedagogical Resources
   - Peer Review
     - o Please include participation and insights learned from engagement in the peer review process, whether formally or informally.
     - o Note
       - ▪ Candidates are not required to disclose participation in or findings of the peer-review process.
   - Continuing Education
     - o Please include participation and insights learned from participating in any continuing education programs related to pedagogy, such as events offered by the Center for Teaching and Learning or at professional conferences.
   - Faculty Interactions
     - o Please include participation and insights learned from interactions with other faculty related to pedagogy.

Service & Student Involvement - Service and Student Involvement activities are a key component of the evaluative process and should be communicated with respect to level and type of service/involvement.

1. Service to the University, Discipline, and Community
   - Summary, Reflection, and Documentation
     - o Provide written summary of and reflection on service activities within the narrative sections of the portfolio.
     - o Provide supporting documentation of active engagement in service activities, if available.
   - Suggested Tables
     - o Separate tables should be created for each level of service including University, College, Department, Discipline, and Community.

- o Function and years of activity should be specified within each service item.
  - ▪ Table 2: "University Service"
- Note
  - o It is not expected that all candidates will have completed service at all possible levels.

University Service

Service	Function	Year
Library Committee	Member	2013-2015
Budget & Salary Comm.	Member	2015-2018
	Chair	2017-2018
Faculty Senate	Member	2016-2018

Table 2. Service activities at the University level.

2. Academic Advising
   - Summary, Reflection, and Documentation
     - o Provide written summary of and reflection on advising activities within the narrative sections of the portfolio.
     - o Provide supporting documentation of active engagement in advising activities, if available.
   - Suggested Table
     - o A single table indicating number of advisees per academic year should be created.
       - ▪ Table 3: "Academic Advising"
   - Note
     - o Numbers of advisees vary widely from department to department. Do not infer strength or weakness of individual service from numbers presented in Table 2.

Academic Advising

Year	Advisees
2013-2014	0
2014-2015	18
2015-2018	23
2017-2018	31
2016-2018	27

Table 3. Number of academic advisees per year.

3. Student Research
   - Summary, Reflection, and Documentation
     - o Provide written summary of and reflection on student research activities within the narrative sections of the portfolio.
     - o Provide supporting documentation of active engagement in student research activities, if available.
   - Suggested Tables
     - o A single table indicating students engaged in research, years of involvement, and research topic should be created.
       - ▪ Table 4: "Student Research"
   - Recommendations
     - o Where appropriate, indicate meaningful and/or measurable outcomes from student research activity.

Student	Year	Topic	Outcome
Jane Doe	2014-2016	Feeding ecology of Himalayan yaks	2015 CNHS Research Symposium Poster Presentation
			2016 Ecological Society of America Oral Presentation
John Smith	2015-2017	Running performance of Himalayan yaks	2016 CNHS Research Symposium Poster Presentation
			2017 Ecological Society of America Oral Presentation
			Journal of Mammology manuscript (*In review*)

Table 4. Supervised student research activities and outcomes.

4. Other Student Activities
   - Summary, Reflection, and Documentation
     - o Provide written summary of and reflection on other student activities within the narrative sections of the portfolio.
     - o Provide supporting documentation of active engagement in other student activities, if available.
   - Suggested Tables
     - o A single table indicating other forms of student involvement should be created, with function and years of engagement indicated for each activity item.
       - ▪ Table 5: "Other Student Activities"

Other Student Activities

Service	Function	Year
ABC Student Organization	Faculty Advisor	2014-2017
DEF Student Organization	Faculty Advisor	2016-2018
ISC 100T	Travel Course Chaperon	2018

Table 5. Other (non-research) student activities.

Scholarship – Productivity in scholarship is indicative of professional development and disciplinary expertise, and plays a key role in generating positive exposure for the University. Both achievement and proper documentation of scholarly works from efforts utilizing University-provided resources should be included in candidate portfolios.

1. Scholarly Works
   - It is suggested that candidates describe individual scholarly contributions in the context of the larger scholarly program or discipline to facilitate understanding of how these individual contributions fit into the "big picture" of the candidate's work.
   - Appropriate copies of all scholarly works should be provided and properly cited within the portfolio. Proper citations should include, but not be limited to:
     - o Authors, Year of Publication, Title, Journal, Volume, Pages
   - Author contributions of the candidate to each scholarly work should be clearly described.
   - Publications and presentations should be listed separately in all portfolio documents.
   - Student authors should be clearly indicated.