Faculty Senate Resolution #16-61
Approved by the Faculty Senate: November 1, 2016
Approved by the Chancellor: December 14, 2016

Recommendation on Survey of Student Opinion of Instruction Instrument

That the Survey of Student Opinion of Instruction instrument, "Survey Form One: Standard Course Evaluation" used in the pilot study in the summer terms and fall term (for short courses) of 2016 also be given at the end of the fall term.

That for the fall 2016 term only, this instrument, in its current form, be used for the purpose of personnel evaluation in accordance with the Faculty Manual Part VIII, Section III, 1. Teaching.

That the following part of the Faculty Manual, "Part VIII, Section III, 1. Teaching, e. review of data from the Student Perception of Teaching Survey (SPOTS). The data from SPOTS is qualitative data and is not designed to serve the purpose of a measurement instrument. Therefore, SPOTS data may not be converted into a numerical score to be used in faculty evaluation" be suspended for the purpose of using the fall 2016 results (only) obtained from "Survey Form One: Standard Course Evaluation" in personnel actions and that the following take its place: "e. review of data from the Survey Form One: Standard Course Evaluation."

(The form and pilot report follow below.)

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Pilot Course Evaluation Questions
(Faculty Senate Resolution #16-34)

Survey Form One: Standard Course Evaluation

Section I. University Core Questions

To what extent do you agree with the following statements?
Response Options: Strongly Agree – Agree – Neutral – Disagree – Strongly Disagree – N/A

Relevance of Content
1. My instructor has an extensive knowledge of the subject matter.
2. My instructor demonstrates the importance and significance of the subject matter.

Teaching/Learning of Relationships and Concepts
3. My instructor explains new ideas by relating them to familiar concepts.
4. My instructor presents sufficient and relevant examples.

Discussion
5. My instructor provides opportunity for questions during class or in online course modules.
6. My instructor asks questions which challenge me to think.

Exams/Grades/Evaluation

7. My work is evaluated in ways that are helpful to my learning.

Providing Feedback to Students
8. My instructor provides useful feedback throughout the semester.

Providing Help as Needed
9. My instructor provides individual assistance when asked.

Readings and Assignments
10. Course activities/assignments help me learn the subject matter.

Overall Rating
11. Overall, I would rate the quality of instruction in this course as:
    Excellent - Good - Fair - Poor - Very Poor

Section II. Student Participation and Effort

To what extent do you agree with the following statements?
    Response Options: Strongly Agree – Agree – Neutral – Disagree – Strongly Disagree – N/A
    12. This course has been challenging.
    13. I always prepare before class.

Section III. Student Comments
    14. What do you feel are the strengths of this course?
    15. What would you change to improve this course?

Additional Questions for Distance Education, Lab, and Field-Based Courses

DE Specific Questions
- My instructor encourages interaction among students.
- The course is organized to encourage interaction with the instructor.
- When I contact the instructor Monday to Friday, I receive a response within 24 hours.
- The instructional materials are accessible and easy to use.
- The design of this course is effective for online delivery.

Lab Course Specific Questions
- My instructor demonstrates how to apply concepts and methodologies in the lab.
- Lab procedures are clearly presented to me.
- Assistance is always available throughout lab sessions.
- Lab safety regulations are strictly enforced.

Field-Based Course Specific Question
- This course has challenged me to acquire skills related to my professional and academic ambitions.

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Preliminary Findings from the Pilot of the New Student Opinion of Instruction Survey
Faculty Senate Report, September 6, 2016

Per the Faculty Senate Resolution #16-34, a new Student Opinion of Instruction Survey form and a new electronic delivery system (i.e., eXplorance Blue) were piloted in all Summer II and 11-Week Summer courses that met ECU's eligibility criteria. The project represented a collaboration of Faculty Senate's General Education and Instructional Effectiveness Committee, ITCS and IPAR. The Faculty Senate designed the new survey form and guided the creation of a reporting template. IPAR and ITCS completed many behind-the-scene tasks to enable single sign-on, Blackboard building blocks, and automated data feeds to Blue. The pilot was successful.

I.   Survey Administration
- A total of 548 unique courses/sections that met the survey criteria were included, two thirds of which were distance education courses/sections. The total course enrollment was 11,062.
- Brody clinical departments and School of Dental Medicine were not included in the university-wide pilot because they have their own processes.
- For team-taught sections, all instructors who had more than 20% of the teaching responsibility for the section were included. Thus, a total of 594 instructor reports were generated in the end.
- Survey questions were divided into instructor-specific questions (Q1-9) and course-specific questions (Q10-13). For team-taught sections, instructor-specific questions repeated for each instructor; while course-specific questions were rated only once by each student. Instructor names are visibly displayed in the survey.
- The survey was open for one week, July 22 – 28.

- Students received one survey invitation and two reminders via email. They could complete the survey via the hyperlink embedded in the notification email or on their Blackboard homepage. The survey platform is mobile compatible and easy to use.
- On the first day of the survey, instructors received an email notification with an embedded link for them to monitor the survey response rate.
- A total of 3,870 responses were received, for an overall response rate of 35%. It is one of the highest response rates in recent years.
- No technical issues were reported from students or instructors during the pilot.

II. Response Rates Overview
- As mentioned earlier, the overall response rate was 35%, compared to 13% of the same period last year. It has also surpassed the response rates for Fall 2015 (31%) and Spring 2016 (24%) when the survey was open for two weeks.
- College of Nursing and College of Education had the highest response rates, 46% and 43% respectively. The response rates for College of Allied Health Sciences and College of Arts and Sciences were the lowest, 27% and 29% respectively.
- Response rates varied by course and department. Class size did not have a strong relationship with response rate. One department with an enrollment under 20 students achieved the highest response rate of 71%, while another department with similar enrollment only reached 10%.

Response Rates by College

Note: Figures presented in the table below reflect multiple instructors per course.

College	Response Rate
Brody School of Medicine	36%
College of Fine Arts and Communication	36%
College of Health and Human Performance	32%
College of Allied Health Sciences	27%
Harriot College of Arts and Sciences	29%
College of Business	32%
College of Education	43%
College of Engineering and Technology	37%
College of Nursing	46%
University Studies	38%

III. Instructor Report Template
- Survey results were distributed to individual instructors and their administrators (i.e., department chairs and deans) on August 12. The reporting structure was set by instructors' primary academic home.
- The instructor report includes response rate, frequency distribution, and mean comparison to courses of the same level in the same department. There were four levels of courses: 1000-level courses, 2000-level courses, 3000-4000 level courses, and graduate courses.

- Student comments were for instructor view only.
- No negative feedback on the survey reports was received.
- SPOTS reports from prior semesters are still stored in the old system and new reports are housed in Blue.

IV. Reliability Test Results
- The following statistical methods were used to analyze the reliability of the survey: Spearman's Rank correlation, Split-half Reliability and Factor Analysis, all of which suggested exceptionally high internal consistency of the first 11 questions on the survey.
- Spearman's Rank correlation showed strong relationships between the first 11 questions for both graduate and undergraduate courses. Student participation and effort (Questions 12 and 13) had low correlations with student ratings of instruction. Course grades had even lower correlations with student ratings of instruction.
- The Cronbach's Alpha was exceptionally high (.97), which indicated that the first 11 items on the survey had high internal consistency.
- The Factor Analysis generated one factor out of the first 10 questions. Varimax Rotation further suggested that the first 10 questions measured two dimensions: Q1 and Q2 formed one dimension, relevance of content; Q3-10 formed another dimension, teaching practices. Teaching practices was the predominant factor.

V. Differences in Ratings
- Male vs. Female Students: Responses from female students counted for two thirds of the total responses. T-test and non-parametric analyses didn't show statistically significant difference in course ratings between gender in either UG or GR level courses.
- Tenure Status: when comparing course ratings by tenure status, the difference between groups was statistically significant in UG level courses only. Tenure-track faculty were rated the highest.
- Academic Rank: when comparing course ratings by academic rank, the difference between groups was statistically significant in BOTH UG and GR level courses. Assistant professors were rated the highest in both cases.

VI. Next Steps
- Collect feedback from the Faculty Senate (i.e., survey form, report template, and business processes)
- Communicate pilot results to faculty and administration
- Increase response rates across the board
- Set dynamic survey dates in Blue to automate the evaluation of early-ending courses. The first early-ending course evaluation for Fall 2016 begins on Sept 22.

Appendix One: Mean Comparison Report

University Core Questions (Rated on a 1-5 Likert Scale)	level	N	Mean	Std Dev
1. My instructor has an extensive knowledge of the subject matter.	1000	492	4.50	0.79
	2000	599	4.59	0.68
	3000-4000	1181	4.52	0.78
	Grad	1662	4.61	0.64
2. My instructor demonstrates the importance and significance of the subject matter.	1000	492	4.38	0.91
	2000	600	4.47	0.79
	3000-4000	1179	4.46	0.83
	Grad	1665	4.56	0.74
3. My instructor explains new ideas by relating them to familiar concepts.	1000	488	4.15	1.10
	2000	598	4.28	0.97
	3000-4000	1163	4.27	1.01
	Grad	1635	4.33	0.93
4. My instructor presents sufficient and relevant examples.	1000	486	4.22	1.11
	2000	599	4.33	0.95
	3000-4000	1176	4.31	0.97
	Grad	1644	4.35	0.94
5. My instructor provides opportunity for questions during class or in online course modules.	1000	492	4.35	1.00
	2000	600	4.44	0.91
	3000-4000	1178	4.40	0.96
	Grad	1656	4.51	0.82
6. My instructor asks questions which challenge me to think.	1000	488	4.23	1.05
	2000	596	4.30	0.93
	3000-4000	1171	4.35	0.95
	Grad	1661	4.43	0.88
7. My work is evaluated in ways that are helpful to my learning.	1000	493	4.02	1.24
	2000	598	4.18	1.07
	3000-4000	1182	4.24	1.09
	Grad	1679	4.24	1.06
8. My instructor provides useful feedback throughout the semester.	1000	496	4.02	1.26
	2000	599	4.16	1.13
	3000-4000	1188	4.21	1.12
	Grad	1671	4.23	1.07

9. My instructor provides individual assistance when asked.	1000	478	4.33	1.03
	2000	580	4.40	0.91
	3000-4000	1157	4.40	0.94
	Grad	1603	4.48	0.85
10. Course activities/assignments help me learn the subject matter.	1000	492	4.09	1.08
	2000	601	4.27	0.95
	3000-4000	1173	4.30	0.95
	Grad	1671	4.35	0.89
11. Overall, I would rate the quality of instruction in this course as: Excellent - Good - Fair - Poor - Very Poor	1000	495	4.19	1.13
	2000	607	4.35	0.96
	3000-4000	1180	4.30	1.03
	Grad	1672	4.38	0.92
12. This course has been challenging.	1000	501	3.95	1.10
	2000	618	4.10	0.92
	3000-4000	1192	4.19	0.86
	Grad	1702	4.34	0.83
13. I always prepare before class.	1000	489	4.09	0.87
	2000	595	4.12	0.83
	3000-4000	1129	4.20	0.78
	Grad	1612	4.36	0.72

Distance Education Questions (Rated on a 1-5 Likert Scale)	level	N	Mean	Std Dev
DE1: My instructor demonstrates how to apply concepts and methodologies in the lab.	1000	209	3.90	1.30
	2000	307	4.04	1.12
	3000-4000	922	4.10	1.10
	Grad	1385	4.46	0.82
DE2: The course is organized to encourage interaction with the instructor.	1000	212	3.65	1.31
	2000	317	3.84	1.17
	3000-4000	936	3.99	1.15
	Grad	1402	4.15	1.07
DE3: When I contact the instructor Monday to Friday, I receive a response within 24 hours.	1000	189	4.15	1.16
	2000	295	4.19	1.11
	3000-4000	886	4.30	1.02
	Grad	1313	4.38	0.97

DE4: The instructional materials are accessible and easy to use.	1000	213	4.19	1.09
	2000	325	4.33	0.94
	3000-4000	937	4.30	0.96
	Grad	1399	4.47	0.80
DE5: The design of this course is effective for online delivery.	1000	216	3.93	1.27
	2000	328	4.22	1.08
	3000-4000	942	4.20	1.08
	Grad	1385	4.35	0.93

Lab Course Questions (Rated on a 1-5 Likert Scale)	LEVEL	N	Mean	Std Dev
LB1: My instructor demonstrates how to apply concepts and methodologies in the lab.	GR	28	4.68	0.55
	UG	61	4.44	0.85
LB2: Lab procedures are clearly presented to me.	GR	28	4.64	0.62
	UG	62	4.35	0.96
LB3: Assistance is always available throughout lab sessions.	GR	28	4.79	0.42
	UG	64	4.45	0.92
LB4: Lab safety regulations are strictly enforced.	GR	28	4.71	0.46
	UG	64	4.59	0.77

Field-Based Course Questions (Rated on a 1-5 Likert Scale)	LEVEL	N	Mean	Std Dev
FB: This course has challenged me to acquire skills related to my professional and academic ambitions.	GR	65	4.37	0.94
	UG	129	4.27	0.88

Appendix Two: Selected Statistical Results

Correlation Table*:
0. No linear relationship
+0.30. A weak positive linear relationship
+0.50. A moderate positive relationship
+0.70. A strong positive linear relationship
Exactly +1. A perfect positive linear relationship

The CORR Procedure

14 Variables:	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	grade

Spearman Correlation Coefficients, N = 2005
Prob > |r| under H0: Rho=0

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	grade
Q1	1.00000	0.83153 <.0001	0.73533 <.0001	0.73350 <.0001	0.71481 <.0001	0.70165 <.0001	0.67756 <.0001	0.67046 <.0001	0.67550 <.0001	0.58921 <.0001	0.63933 <.0001	0.20892 <.0001	0.22482 <.0001	0.05398 0.0156
Q2	0.83153 <.0001	1.00000	0.80629 <.0001	0.78869 <.0001	0.75189 <.0001	0.73753 <.0001	0.74778 <.0001	0.71623 <.0001	0.72507 <.0001	0.63697 <.0001	0.66831 <.0001	0.18769 <.0001	0.25475 <.0001	0.09759 <.0001
Q3	0.73533 <.0001	0.80629 <.0001	1.00000	0.85872 <.0001	0.74374 <.0001	0.74521 <.0001	0.77771 <.0001	0.74819 <.0001	0.74040 <.0001	0.64209 <.0001	0.68734 <.0001	0.12737 <.0001	0.23854 <.0001	0.10679 <.0001
Q4	0.73350 <.0001	0.78869 <.0001	0.85872 <.0001	1.00000	0.76349 <.0001	0.73880 <.0001	0.79716 <.0001	0.76804 <.0001	0.74021 <.0001	0.67910 <.0001	0.70340 <.0001	0.13170 <.0001	0.23900 <.0001	0.12240 <.0001
Q5	0.71481 <.0001	0.75189 <.0001	0.74374 <.0001	0.76349 <.0001	1.00000	0.72898 <.0001	0.75134 <.0001	0.75857 <.0001	0.79683 <.0001	0.62959 <.0001	0.66950 <.0001	0.15589 <.0001	0.22872 <.0001	0.11254 <.0001
Q6	0.70165 <.0001	0.73753 <.0001	0.74521 <.0001	0.73880 <.0001	0.72898 <.0001	1.00000	0.76088 <.0001	0.73794 <.0001	0.72083 <.0001	0.62326 <.0001	0.61984 <.0001	0.25061 <.0001	0.28600 <.0001	0.09807 <.0001
Q7	0.67756 <.0001	0.74778 <.0001	0.77771 <.0001	0.79716 <.0001	0.75134 <.0001	0.76088 <.0001	1.00000	0.86259 <.0001	0.78023 <.0001	0.70671 <.0001	0.71635 <.0001	0.11892 <.0001	0.26213 <.0001	0.16621 <.0001
Q8	0.67046 <.0001	0.71623 <.0001	0.74819 <.0001	0.76804 <.0001	0.75857 <.0001	0.73794 <.0001	0.86259 <.0001	1.00000	0.81504 <.0001	0.67526 <.0001	0.70507 <.0001	0.13135 <.0001	0.25689 <.0001	0.14977 <.0001
Q9	0.67550 <.0001	0.72507 <.0001	0.74040 <.0001	0.74021 <.0001	0.79683 <.0001	0.72083 <.0001	0.78023 <.0001	0.81504 <.0001	1.00000	0.64573 <.0001	0.68585 <.0001	0.16716 <.0001	0.24563 <.0001	0.12457 <.0001
Q10	0.58921 <.0001	0.63697 <.0001	0.64209 <.0001	0.67910 <.0001	0.62959 <.0001	0.62326 <.0001	0.70671 <.0001	0.67526 <.0001	0.64573 <.0001	1.00000	0.70730 <.0001	0.14026 <.0001	0.27848 <.0001	0.22188 <.0001
Q11	0.63933 <.0001	0.66831 <.0001	0.68734 <.0001	0.70340 <.0001	0.66950 <.0001	0.61984 <.0001	0.71635 <.0001	0.70507 <.0001	0.68585 <.0001	0.70730 <.0001	1.00000	0.08381 0.0002	0.23265 <.0001	0.18366 <.0001
Q12	0.20892 <.0001	0.18769 <.0001	0.12737 <.0001	0.13170 <.0001	0.15589 <.0001	0.25061 <.0001	0.11892 <.0001	0.13135 <.0001	0.16716 <.0001	0.14026 <.0001	0.08381 0.0002	1.00000	0.30821 <.0001	-0.11810 <.0001
Q13	0.22482 <.0001	0.25475 <.0001	0.23854 <.0001	0.23900 <.0001	0.22872 <.0001	0.28600 <.0001	0.26213 <.0001	0.25689 <.0001	0.24563 <.0001	0.27848 <.0001	0.23265 <.0001	0.30821 <.0001	1.00000	0.17309 <.0001
grade	0.05398 0.0156	0.09759 <.0001	0.10679 <.0001	0.12240 <.0001	0.11254 <.0001	0.09807 <.0001	0.16621 <.0001	0.14977 <.0001	0.12457 <.0001	0.22188 <.0001	0.18366 <.0001	-0.11810 <.0001	0.17309 <.0001	1.00000

Split Half Alpha --- UG*

Cronbach Coefficient Alpha

Variables	Alpha
Raw	0.966443
Standardized	0.967318

*Note: only UG results are included. GR results are almost identical.

Factor Analysis --- UG*

Eigenvalues

	Eigenvalues of the Reduced Correlation Matrix: Total = 8.30107709 Average = 0.75464337			
	Eigenvalue	Difference	Proportion	Cumulative
1	8.05720422	7.74190327	0.9706	0.9706
2	0.31530095	0.14625643	0.0380	1.0086
3	0.16904452	0.07618775	0.0204	1.0290
4	0.09285678	0.03666828	0.0112	1.0402
5	0.05618850	0.07386432	0.0068	1.0469
6	-.01767582	0.04088149	-0.0021	1.0448
7	-.05855731	0.00533400	-0.0071	1.0377
8	-.06389131	0.00996367	-0.0077	1.0300
9	-.07385498	0.01155850	-0.0089	1.0211
10	-.08541348	0.00471151	-0.0103	1.0109
11	-.09012499		-0.0109	1.0000

VARMAX Rotation

Rotated Factor Pattern		
	Factor1	Factor2
Q1	0.40071	0.76320
Q2	0.45620	0.79386
Q3	0.59165	0.67854
Q4	0.63113	0.63119
Q5	0.61182	0.58022
Q6	0.57340	0.61063
Q7	0.78820	0.46236
Q8	0.78942	0.43889
Q9	0.68639	0.49831
Q10	0.67999	0.42742
Q11	0.74010	0.45632

After Rotation

Rotated Factor Pattern (Standardized Regression Coefficients)		
	Factor1	Factor2
Q1	0.07643	0.80328
Q2	0.13365	0.81124
Q3	0.39150	0.56892
Q4	0.47520	0.47937
Q5	0.48033	0.42113
Q6	0.40863	0.48670
Q7	0.79603	0.15006
Q8	0.81229	0.11699
Q9	0.63374	0.26236
Q10	0.66901	0.16873
Q11	0.73366	0.17142

*Note: only UG results are included. GR results are almost identical.

Comparison by Academic Rank*

ANOVA: Total Scores (Sum of Q 1-11) by Academic Rank, Undergraduate Courses

Means with the same letter are not significantly different.				
Waller Grouping		Mean	N	rank
	A	49.2170	765	ASST
B	A	48.9101	523	PROF
B	A	48.3840	802	INSTR
B	A	47.7805	41	GTA
B		47.3465	1267	ASSOC

Chi-Square: Question 11 by Academic Rank, Undergraduate Courses

Statistic	DF	Value	Prob
Chi-Square	16	30.0743	0.0176
Likelihood Ratio Chi-Square	16	31.5709	0.0114
Mantel-Haenszel Chi-Square	1	10.2919	0.0013
Phi Coefficient		0.1225	
Contingency Coefficient		0.1216	
Cramer's V		0.0612	

*Note: only UG results are included. GR results are similar with assistant professors rated the highest. ANOVA and Chi-square results are consistent.

Comparison by Tenure Status**
ANOVA and Chi-square results are somewhat different.

ANOVA: Total Scores (Sum of Q 1-11) by Tenure Status, Undergraduate Courses

Means with the same letter are not significantly different.				
Waller Grouping		Mean	N	INSTRUCTOR_TENURE
	A	49.963	108	On Tenure Track
B	A	48.289	906	Not Eligible for Tenure
B	A	47.780	41	GTA
B		47.140	950	Tenured

*** The difference by tenure status is statistically significant in UG level courses only. The difference by tenure status is NOT statistically significant in GR level courses.*

Chi-Square: Question 11 by Tenure Status, Undergraduate Courses

Statistic	DF	Value	Prob
Chi-Square	12	26.1293	0.0103
Likelihood Ratio Chi-Square	12	28.9970	0.0039
Mantel-Haenszel Chi-Square	1	0.0016	0.9679
Phi Coefficient		0.1142	

Statistic	DF	Value	Prob
Contingency Coefficient		0.1134	
Cramer's V		0.0659	
WARNING: 25% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Chi-square test indicates statistically significant difference by tenure status in both UG and GR courses. However, chi-square may not be valid due to small cell counts.