University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data (There are 6 institutions in this comparison group.)										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means Min	Range of Means Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
Factor 1: Instruction & Interaction in Major Courses																
Q13. Instruction and Faculty in your Engineering Major Quality of: Teaching	48	5.17	1.16	5.44	4.00	3.00	4.78	4.89	4.80	3.00	5.44	4.88	1.19	0.29	▲	2
Q14. Instruction and Faculty in your Engineering Major Quality of: Feedback on assignments (other than grades)	48	3.85	1.14	4.71	3.92	3.57	3.56	4.04	4.40	3.56	4.71	4.26	1.32	-0.41	▼	5
Q15. Instruction and Faculty in your Engineering Major Quality of: Student/faculty interaction	47	4.34	1.29	4.91	4.50	3.57	4.22	4.74	5.00	3.57	5.00	4.69	1.35	-0.35	▼	5
Factor 2: Aspects of Major Courses																
Q20. Satisfaction with: Grades in major courses accurately reflecting students' level of performance	47	4.96	1.74	4.96	4.65	4.71	5.40	5.08	4.93	4.65	5.40	4.96	1.63	0.00		4
Q21. Satisfaction with: Accessibility of major course instructors outside of class	48	5.48	1.10	5.65	5.27	4.86	5.07	5.26	5.27	4.86	5.65	5.39	1.25	0.09	▲	2
Q22. Satisfaction with: Responsiveness to major course instructors to student concerns	46	5.20	1.23	5.49	4.36	4.00	5.40	5.33	4.73	4.00	5.49	5.13	1.39	0.07	▲	4
Q23. Satisfaction with: Amount of work required of in major courses	48	4.04	1.58	5.00	4.54	4.86	3.87	4.27	4.13	3.87	5.00	4.61	1.51	-0.57	▼	6
Q30. Satisfaction with: Average size of major courses	48	5.94	1.09	5.71	5.96	4.50	5.40	6.07	5.67	4.50	6.07	5.73	1.25	0.21	▲	3
Q31. Satisfaction with: Availability of courses in major	48	6.04	1.29	5.59	4.88	3.67	5.13	5.59	5.67	3.67	6.04	5.37	1.62	0.67	▲	1
Factor 3: Breadth of Curriculum																
Q24. Satisfaction with: Engineering curriculum instructors presentation of technology issues	48	4.73	1.35	5.46	4.31	3.57	4.87	4.96	4.73	3.57	5.46	4.97	1.40	-0.24	▼	4
Q25. Satisfaction with: Opportunities for practical experiences within Undergraduate curriculum	48	4.71	1.61	4.99	4.12	3.00	5.07	4.07	5.13	3.00	5.13	4.62	1.63	0.09	▲	4
Q26. Satisfaction with: Opportunities for interaction with practitioners	37	3.92	1.53	4.61	3.60	2.33	4.71	4.54	4.47	2.33	4.71	4.33	1.50	-0.41	▼	5
Q33. Satisfaction with: Amount of work in relationship to what was learned	48	4.73	1.40	5.37	4.00	4.17	4.20	4.26	4.60	4.00	5.37	4.72	1.58	0.01	▲	2
Factor 4: Team & Extracurricular Activities																
Q27. Satisfaction with: Value derived from team experiences	48	5.23	1.57	5.68	4.72	3.67	5.93	5.41	5.80	3.67	5.93	5.44	1.36	-0.21	▼	5
Q28. Satisfaction with: Value of Engineering program student organization activities	41	4.73	1.85	5.41	4.35	4.00	4.67	4.38	4.46	4.00	5.41	4.86	1.60	-0.13	▼	2
Q29. Satisfaction with: Leadership opportunities in Engineering program's extracurricular activities	38	5.03	1.74	5.27	4.55	3.75	4.40	4.53	4.67	3.75	5.27	4.86	1.59	0.17	▲	2

▼: UW-Madison has a lower mean than the mean of the comparative group ▲: UW-Madison has a higher mean than the mean of the comparative group

University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data (There are 6 institutions in this comparison group.)										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means Min	Range of Means Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
Factor 5: Computing Resources																
Q36. Advising/Computing - Advising/Computing - Satisfaction with: Quality of computing resources	48	6.00	0.87	5.88	5.00	4.50	5.71	5.07	5.80	4.50	6.00	5.51	1.48	0.49	▲	1
Factor 6: Fellow Students																
Q37. Classmates - Satisfaction with characteristics of your fellow students': Academic quality	48	5.88	0.93	5.91	5.35	4.50	6.07	6.00	6.00	4.50	6.07	5.80	1.21	0.08	▲	5
Q38. Classmates - Satisfaction with characteristics of your fellow students': Ability to work in teams	48	5.31	1.37	5.82	5.19	4.83	5.80	5.07	5.87	4.83	5.87	5.55	1.34	-0.24	▼	4
Q39. Classmates - Satisfaction with characteristics of your fellow students': Level of camaraderie	48	5.73	1.55	6.07	6.00	5.33	6.07	5.44	5.87	5.33	6.07	5.90	1.33	-0.17	▼	5
Factor 7: Career Services and Job Placement																
Q40. Career Services - Career Services - Satisfaction with: Assistance in preparation for permanent job search	43	5.42	1.79	5.89	3.96	3.83	4.73	4.32	6.00	3.83	6.00	5.12	1.74	0.30	▲	3
Q41. Career Services - Career Services - Satisfaction with: Geographic distribution of companies recruiting on campus	43	4.91	1.52	5.48	3.64	2.33	4.67	4.05	5.29	2.33	5.48	4.74	1.79	0.17	▲	3
Q42. Career Services - Career Services - Satisfaction with: Access to school's alumni to cultivate career opportunities	38	4.24	1.56	4.77	3.84	3.40	5.33	4.47	4.69	3.40	5.33	4.57	1.61	-0.33	▼	5
Q43. Career Services - Career Services - Satisfaction with: Number of companies recruiting on campus	44	5.57	1.62	6.20	3.88	2.50	5.40	4.61	6.08	2.50	6.20	5.31	1.69	0.26	▲	3
Q44. Career Services - Career Services - Satisfaction with: Quality of companies recruiting on campus	45	5.64	1.48	6.18	4.32	2.83	5.64	5.39	6.31	2.83	6.31	5.56	1.48	0.08	▲	3

▼: UW-Madison has a lower mean than the mean of the comparative group ▲: UW-Madison has a higher mean than the mean of the comparative group

University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data (There are 6 institutions in this comparison group.)										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means Min	Range of Means Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
Factor 8: System Design & Problem Solving																
Q48. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design experiments	48	5.29	1.15	5.84	4.46	5.17	5.73	4.63	5.57	4.46	5.84	5.34	1.23	-0.05	▼	4
Q49. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Conduct experiments	48	5.92	0.91	6.01	5.35	5.33	6.07	4.81	5.57	4.81	6.07	5.63	1.18	0.29	▲	3
Q50. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Analyze and interpret data	48	6.19	0.88	6.16	5.62	5.00	6.13	6.11	5.93	5.00	6.19	5.99	0.94	0.20	▲	1
Q51. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design a system, component, or process to meet desired needs	48	5.65	1.01	5.82	4.69	5.50	5.93	5.52	5.79	4.69	5.93	5.57	1.18	0.08	▲	4
Q52. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Function on multidisciplinary teams	48	5.48	1.50	5.73	4.50	5.00	5.67	5.37	5.36	4.50	5.73	5.40	1.40	0.08	▲	3
Factor 9: Impact of Engineering Solutions																
Q56. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities	48	4.77	1.56	5.81	4.88	5.83	5.40	5.22	4.93	4.77	5.83	5.44	1.42	-0.67	▼	7
Q69. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: A global/societal context	48	5.19	1.45	5.29	4.54	4.50	4.53	5.19	5.29	4.50	5.29	5.04	1.37	0.15	▲	4

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University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data There are 6 institutions in this comparison group.										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means: Min	Range of Means: Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
Factor 10. Use of Tools and Text	48	5.34	0.90	5.60	4.74	5.63	5.26	5.19	5.50	4.72	5.63	5.34	0.95	[illegible]	[illegible]	4
Q58. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using oral progress reports	46	4.98	1.29	5.66	4.91	5.50	5.00	5.11	5.79	4.91	5.79	5.39	1.29	-0.41	▼	6
Q59. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using written progress reports	47	5.98	0.89	6.01	5.28	5.83	5.67	5.63	5.86	5.28	6.01	5.77	1.15	0.21	▲	2
Q62. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use modern engineering tools specific to your primary academic major	46	5.74	1.24	5.63	4.46	5.83	5.87	5.41	5.64	4.46	5.87	5.43	1.30	0.31	▲	3
Q67. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Pilot test a component prior to implementation	44	4.43	1.36	4.95	3.83	4.75	4.08	3.91	4.50	3.83	4.95	4.48	1.55	-0.05	▼	4
Q68. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use text materials to support project design	47	5.62	1.23	5.67	5.32	5.40	5.33	5.65	5.71	5.32	5.71	5.57	1.15	0.05	▲	4

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University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data (There are 6 institutions in this comparison group.)										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means Min	Range of Means Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
Factor 11: Apply Knowledge and Identify Problems	[illegible]															
Q45. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of mathematics	48	6.00	1.04	6.15	5.54	5.33	5.60	6.11	5.86	5.33	6.15	5.93	1.05	0.07	▲	3
Q46. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of science	48	6.04	0.89	6.15	5.46	5.17	5.73	6.19	6.21	5.17	6.21	5.97	1.03	0.07	▲	4
Q47. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of engineering	48	6.21	1.08	6.35	5.50	5.83	6.13	5.88	6.29	5.50	6.35	6.08	1.07	0.13	▲	3
Q53. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Identify engineering problems	48	5.69	0.98	5.93	5.46	5.33	5.87	5.48	5.86	5.33	5.93	5.74	1.05	-0.05	▼	4
Q54. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Formulate engineering problems	48	5.56	0.98	5.76	5.00	5.17	5.67	5.07	5.57	5.00	5.76	5.47	1.14	0.09	▲	4
Q55. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems	48	6.27	0.81	6.07	5.58	5.17	5.53	5.81	6.00	5.17	6.27	5.85	1.06	0.42	▲	1
Q61. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand contemporary issues	47	5.23	1.34	5.52	4.31	5.17	4.93	5.37	5.64	4.31	5.64	5.23	1.36	0.00		4
Factor 12: Design Experience Built On Coursework	[illegible]															
Q64. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on knowledge from previous course work	48	5.90	0.98	5.92	5.08	5.00	5.67	5.63	5.71	5.00	5.92	5.65	1.16	0.25	▲	2
Q65. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on skills from previous course work	48	5.83	1.07	5.99	4.88	5.33	5.53	5.70	5.64	4.88	5.99	5.65	1.19	0.18	▲	2
Q66. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Incorporated engineering standards	47	5.06	1.31	5.62	4.69	5.33	5.27	4.74	5.21	4.69	5.62	5.23	1.29	-0.17	▼	5

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University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data (There are 6 institutions in this comparison group.)										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means Min	Range of Means Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
Factor 10: Design Experience Issues	[illegible]															
Q72. System Design - To what degree did your system design experience address the following: Addressed Economic issues	48	5.42	1.46	5.52	5.19	4.67	6.20	5.85	5.50	4.67	6.20	5.55	1.32	-0.13	▼	5
Q73. System Design - To what degree did your system design experience address the following: Addressed Environmental issues	48	4.58	1.53	5.61	4.19	4.00	5.27	5.37	5.50	4.00	5.61	5.22	1.50	-0.64	▼	5
Q74. System Design - To what degree did your system design experience address the following: Addressed Social issues	48	3.75	1.59	4.75	3.81	3.17	4.60	4.42	4.21	3.17	4.75	4.41	1.57	-0.66	▼	6
Q75. System Design - To what degree did your system design experience address the following: Addressed Political issues	48	3.35	1.59	4.47	3.62	2.33	3.60	3.81	3.57	2.33	4.47	3.97	1.65	-0.62	▼	6
Q76. System Design - To what degree did your system design experience address the following: Addressed Ethical issues	48	3.96	1.65	5.29	4.69	4.17	4.67	4.96	4.36	3.96	5.29	4.94	1.49	-0.98	▼	7
Q77. System Design - To what degree did your system design experience address the following: Addressed Health and Safety issues	48	4.83	1.39	5.66	4.38	4.67	5.93	5.41	5.43	4.38	5.93	5.37	1.41	-0.54	▼	5
Q78. System Design - To what degree did your system design experience address the following: Addressed Manufacturability issues	48	5.23	1.34	5.72	4.24	3.83	5.53	5.12	5.36	3.83	5.72	5.25	1.43	-0.02	▼	4
Q79. System Design - To what degree did your system design experience address the following: Addressed Sustainability issues	48	5.15	1.44	5.43	4.08	3.67	4.07	5.41	5.36	3.67	5.43	4.99	1.59	0.16	▲	4
Factor 11: Laboratory Facilities	[illegible]															
Q80. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Established an atmosphere conducive to learning	48	5.56	1.06	5.44	4.15	3.67	5.40	5.65	5.07	3.67	5.65	5.15	1.42	0.41	▲	2
Q81. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Fostered student/faculty interaction	48	5.50	1.24	5.21	3.92	3.50	5.47	5.50	5.57	3.50	5.57	5.03	1.46	0.47	▲	3

▼: UW-Madison has a lower mean than the mean of the comparative group ▲: UW-Madison has a higher mean than the mean of the comparative group

University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data (There are 6 institutions in this comparison group.)										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means Min	Range of Means Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
Factor 15: Overall Program Effectiveness	48	5.45	1.25	5.67	4.23	3.83	5.10	4.19	5.29	3.83	5.67	4.99	1.45	0.46	▲	2
Q83. The Bottom Line - Overall Satisfaction - Extent that the Undergraduate Engineering program experience fulfill expectations	48	5.25	1.31	5.25	4.08	3.14	4.40	4.52	5.15	3.14	5.25	4.74	1.52	0.51	▲	2
Q84. Comparing the expense to the quality of education, rate the value of the investment made in Undergraduate Engineering program	48	5.56	1.43	5.67	3.73	3.83	5.00	3.85	4.71	3.73	5.67	4.80	1.72	0.76	▲	2
Q85. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering Major to a close friend	48	5.21	1.72	5.71	4.56	1.71	4.80	3.70	5.36	1.71	5.71	4.88	1.88	0.33	▲	3
Q86. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering School to a close friend	48	5.79	1.26	6.01	4.65	4.57	6.47	4.67	5.71	4.57	6.47	5.51	1.58	0.28	▲	3

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University of Wisconsin-Madison

Factor and Question Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

	Your Data			Your Select 6 Data (There are 6 institutions in this comparison group.)										Comparison to Select 6		
	N	Mean	Std Dev	Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Range of Means Min	Range of Means Max	Wt Mean	Std Dev	Difference in Means	Arrow	Rank Among 7
NOTE: These question(s) below do not comprise a study factor.																
Q16. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Calculus	44	4.86	1.50	5.55	5.00	5.50	5.67	5.22	5.21	4.86	5.67	5.38	1.42	-0.52	▼	7
Q17. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Differential Equations	47	4.38	1.74	4.66	5.92	5.50	5.20	4.78	5.00	4.38	5.92	5.00	1.80	-0.62	▼	7
Q18. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Physics	45	4.00	1.70	4.42	3.83	5.17	4.67	4.40	4.50	3.83	5.17	4.38	1.83	-0.38	▼	6
Q19. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Chemistry	47	5.72	1.12	5.91	4.77	6.00	6.07	5.69	5.86	4.77	6.07	5.68	1.30	0.04	▲	5
Q32. Satisfaction with: Quality of Engineering classrooms	47	4.94	1.21	4.72	4.52	4.17	5.40	5.56	5.27	4.17	5.56	4.93	1.49	0.01	▲	4
Q34. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by faculty	47	4.30	1.92	5.49	4.69	3.17	4.67	4.74	5.13	3.17	5.49	5.03	1.74	-0.73	▼	6
Q35. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by non-faculty	27	4.81	1.22	5.98	4.10	3.50	4.62	4.53	5.00	3.50	5.98	5.16	1.64	-0.35	▼	3
Q60. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Recognize need to engage in lifelong learning	48	5.67	1.45	5.73	4.77	5.67	5.87	5.30	5.71	4.77	5.87	5.50	1.47	0.17	▲	4
Q82. Course Comparison - Quality of teaching in your Engineering courses compare to the quality of teaching in Non-Engineering courses on this campus	48	5.42	1.22	5.62	4.48	3.00	4.20	4.33	4.64	3.00	5.62	4.87	1.59	0.55	▲	2

▼: UW-Madison has a lower mean than the mean of the comparative group ▲: UW-Madison has a higher mean than the mean of the comparative group

University of Wisconsin-Madison

Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

	Your Data			Carnegie Class Data and Comparisons There are 27 institutions in this Carnegie Class.						All Institutions Data and Comparisons There are 73 total participating iinstitutions					
	N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
Factor 1: Instruction & Interaction in Major Courses																	
Q13. Instruction and Faculty in your Engineering Major Quality of: Teaching	48	5.17	1.16	4.86	1.21	3.00	5.72	0.31	▲	5	5.09	1.19	3.00	6.00	0.08	▲	21
Q14. Instruction and Faculty in your Engineering Major Quality of: Feedback on assignments (other than grades)	48	3.85	1.14	4.30	1.28	3.33	4.79	-0.45	▼	17	4.58	1.27	3.33	6.00	-0.73	▼	37
Q15. Instruction and Faculty in your Engineering Major Quality of: Student/faculty interaction	47	4.34	1.29	4.87	1.37	3.57	5.50	-0.53	▼	19	5.22	1.42	3.57	6.61	-0.88	▼	37
Factor 2: Aspects of Major Courses																	
Q20. Satisfaction with: Grades in major courses accurately reflecting students' level of performance	47	4.96	1.74	5.03	1.56	4.30	5.73	-0.07	▼	13	5.21	1.50	4.30	6.40	-0.25	▼	29
Q21. Satisfaction with: Accessibility of major course instructors outside of class	48	5.48	1.10	5.57	1.31	3.40	6.33	-0.09	▼	12	5.77	1.23	3.40	6.80	-0.29	▼	29
Q22. Satisfaction with: Responsiveness to major course instructors to student concerns	46	5.20	1.23	5.31	1.37	4.00	6.33	-0.11	▼	14	5.52	1.31	4.00	6.60	-0.32	▼	31
Q23. Satisfaction with: Amount of work required of in major courses	48	4.04	1.58	4.65	1.56	3.87	6.40	-0.61	▼	21	4.97	1.47	3.87	6.40	-0.93	▼	41
Q30. Satisfaction with: Average size of major courses	48	5.94	1.09	5.86	1.22	4.50	6.50	0.08	▲	13	5.99	1.14	4.50	6.80	-0.05	▼	29
Q31. Satisfaction with: Availability of courses in major	48	6.04	1.29	5.46	1.58	3.67	6.33	0.58	▲	6	5.52	1.54	3.57	6.35	0.52	▲	9
Factor 3: Breadth of Curriculum																	
Q24. Satisfaction with: Engineering curriculum instructors presentation of technology issues	48	4.73	1.35	4.96	1.27	3.57	5.48	-0.23	▼	13	5.11	1.23	3.57	6.15	-0.38	▼	32
Q25. Satisfaction with: Opportunities for practical experiences within Undergraduate curriculum	48	4.71	1.61	4.60	1.54	3.00	5.22	0.11	▲	14	4.95	1.53	3.00	6.15	-0.24	▼	31
Q26. Satisfaction with: Opportunities for interaction with practitioners	37	3.92	1.53	4.25	1.45	2.33	5.20	-0.33	▼	15	4.49	1.46	2.33	5.85	-0.57	▼	33
Q33. Satisfaction with: Amount of work in relationship to what was learned	48	4.73	1.40	4.91	1.49	3.89	5.80	-0.18	▼	13	5.16	1.42	3.81	6.40	-0.43	▼	31

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University of Wisconsin-Madison

Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

	Your Data			Carnegie Class Data and Comparisons There are 27 institutions in this Carnegie Class.							All Institutions Data and Comparisons There are 73 total participating iinstitutions						
	N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
Factor 4: Team & Extracurricular Activities																	
Q27. Satisfaction with: Value derived from team experiences	48	5.23	1.57	5.44	1.38	3.67	6.04	-0.21	▼	14	5.55	1.37	3.67	6.40	-0.32	▼	30
Q28. Satisfaction with: Value of Engineering program student organization activities	41	4.73	1.85	4.89	1.43	4.00	5.78	-0.16	▼	13	4.99	1.42	4.00	6.23	-0.26	▼	27
Q29. Satisfaction with: Leadership opportunities in Engineering program's extracurricular activities	38	5.03	1.74	4.92	1.43	3.75	6.22	0.11	▲	10	4.99	1.43	3.70	6.31	0.04	▲	20
Factor 5: Computing Resources																	
Q36. Advising/Computing - Advising/Computing - Satisfaction with: Quality of computing resources	48	6.00	0.87	5.44	1.46	4.50	6.00	0.56	▲	1	5.46	1.43	4.20	6.33	0.54	▲	5
Factor 6: Fellow Students																	
Q37. Classmates - Satisfaction with characteristics of your fellow students': Academic quality	48	5.88	0.93	5.78	1.23	4.20	6.30	0.10	▲	9	5.74	1.18	4.20	6.30	0.14	▲	16
Q38. Classmates - Satisfaction with characteristics of your fellow students': Ability to work in teams	48	5.31	1.37	5.52	1.35	4.47	6.17	-0.21	▼	14	5.54	1.35	4.47	6.17	-0.23	▼	29
Q39. Classmates - Satisfaction with characteristics of your fellow students': Level of camaraderie	48	5.73	1.55	5.79	1.43	4.20	6.30	-0.06	▼	12	5.82	1.39	4.20	6.47	-0.09	▼	26
Factor 7: Career Services and Job Placement																	
Q40. Career Services - Career Services - Satisfaction with: Assistance in preparation for permanent job search	43	5.42	1.79	4.95	1.74	2.75	6.00	0.47	▲	8	4.88	1.79	2.55	6.08	0.54	▲	11
Q41. Career Services - Career Services - Satisfaction with: Geographic distribution of companies recruiting on campus	43	4.91	1.52	4.45	1.86	2.00	5.48	0.46	▲	5	4.40	1.84	1.82	5.54	0.51	▲	10
Q42. Career Services - Career Services - Satisfaction with: Access to school's alumni to cultivate career opportunities	38	4.24	1.56	4.41	1.65	2.50	5.70	-0.17	▼	11	4.36	1.65	1.91	5.77	-0.12	▼	22
Q43. Career Services - Career Services - Satisfaction with: Number of companies recruiting on campus	44	5.57	1.62	4.96	1.75	2.33	6.20	0.61	▲	5	4.85	1.78	1.75	6.20	0.72	▲	8
Q44. Career Services - Career Services - Satisfaction with: Quality of companies recruiting on campus	45	5.64	1.48	5.31	1.59	2.33	6.31	0.33	▲	6	5.20	1.62	2.18	6.31	0.44	▲	11

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University of Wisconsin-Madison

Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

	Your Data			Carnegie Class Data and Comparisons There are 27 institutions in this Carnegie Class.							All Institutions Data and Comparisons There are 73 total participating iinstitutions					
	N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
Factor 3: System Design & Problem Solving	[illegible]																
Q48. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design experiments	48	5.29	1.15	5.36	1.19	4.46	5.91	-0.07	▼	15	5.53	1.19	4.46	6.15	-0.24	▼	35
Q49. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Conduct experiments	48	5.92	0.91	5.59	1.16	4.57	6.13	0.33	▲	4	5.72	1.16	4.57	6.60	0.20	▲	13
Q50. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Analyze and interpret data	48	6.19	0.88	5.95	0.98	5.00	6.35	0.24	▲	5	6.03	0.99	5.00	6.80	0.16	▲	16
Q51. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design a system, component, or process to meet desired needs	48	5.65	1.01	5.61	1.19	4.36	6.30	0.04	▲	10	5.74	1.12	4.36	6.50	-0.09	▼	29
Q52. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Function on multidisciplinary teams	48	5.48	1.50	5.12	1.59	3.57	6.00	0.36	▲	6	5.23	1.61	3.57	6.50	0.25	▲	15
Factor 9: Impact of Engineering Solutions	[illegible]																
Q56. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities	48	4.77	1.56	5.37	1.38	4.40	6.09	-0.60	▼	19	5.52	1.37	4.40	6.77	-0.75	▼	39
Q69. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: A global/societal context	48	5.19	1.45	5.19	1.34	3.64	5.98	0.00		13	5.24	1.33	3.64	5.98	-0.05	▼	26

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University of Wisconsin-Madison

Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

	Your Data			Carnegie Class Data and Comparisons There are 27 institutions in this Carnegie Class.							All Institutions Data and Comparisons There are 73 total participating iinstitutions						
	N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
Factor 10: Use of Tools and Text	[illegible]	[illegible]	[illegible]	[illegible]	0.95	4.60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Q58. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using oral progress reports	46	4.98	1.29	5.51	1.29	4.65	6.30	-0.53	▼	20	5.59	1.26	4.65	6.60	-0.61	▼	40
Q59. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using written progress reports	47	5.98	0.89	5.75	1.14	4.67	6.30	0.23	▲	6	5.79	1.16	4.67	6.42	0.19	▲	14
Q62. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use modern engineering tools specific to your primary academic major	46	5.74	1.24	5.46	1.28	4.46	6.17	0.28	▲	5	5.53	1.28	4.40	6.17	0.21	▲	14
Q67. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Pilot test a component prior to implementation	44	4.43	1.36	4.37	1.66	2.82	5.22	0.06	▲	11	4.51	1.66	2.82	5.65	-0.08	▼	24
Q68. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use text materials to support project design	47	5.62	1.23	5.60	1.16	4.27	5.86	0.02	▲	12	5.68	1.15	4.27	6.31	-0.06	▼	28

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University of Wisconsin-Madison

Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

	Your Data			Carnegie Class Data and Comparisons (There are 27 institutions in this Carnegie Class.)							All Institutions Data and Comparisons (There are 73 total participating iinstitutions)						
	N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
Factor 11: Apply Knowledge and Identify Problems																	
Q45. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of mathematics	48	6.00	1.04	5.97	0.99	5.33	6.24	0.03	▲	10	5.97	0.98	5.33	6.80	0.03	▲	18
Q46. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of science	48	6.04	0.89	6.00	0.96	5.17	6.37	0.04	▲	9	6.06	0.91	5.17	6.60	-0.02	▼	23
Q47. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of engineering	48	6.21	1.08	6.17	0.96	5.50	6.48	0.04	▲	7	6.26	0.88	5.50	6.80	-0.05	▼	24
Q53. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Identify engineering problems	48	5.69	0.98	5.78	1.00	5.33	6.20	-0.09	▼	11	5.85	1.00	5.33	6.31	-0.16	▼	27
Q54. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Formulate engineering problems	48	5.56	0.98	5.50	1.15	4.70	6.00	0.06	▲	10	5.61	1.11	4.70	6.31	-0.05	▼	24
Q55. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems	48	6.27	0.81	5.91	1.01	5.17	6.35	0.36	▲	2	6.01	0.95	5.17	6.40	0.26	▲	7
Q61. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand contemporary issues	47	5.23	1.34	5.19	1.35	4.31	5.90	0.04	▲	10	5.31	1.29	4.31	6.31	-0.08	▼	25
Factor 12: Design Experience Built on Coursework																	
Q64. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on knowledge from previous course work	48	5.90	0.98	5.74	1.12	5.00	6.35	0.16	▲	7	5.88	1.07	5.00	6.42	0.02	▲	20
Q65. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on skills from previous course work	48	5.83	1.07	5.75	1.11	4.88	6.26	0.08	▲	9	5.88	1.05	4.88	6.42	-0.05	▼	25
Q66. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Incorporated engineering standards	47	5.06	1.31	5.33	1.24	3.89	5.80	-0.27	▼	16	5.47	1.22	3.89	6.31	-0.41	▼	35

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University of Wisconsin-Madison

Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

	Your Data			Carnegie Class Data and Comparisons There are 27 institutions in this Carnegie Class.							All Institutions Data and Comparisons There are 73 total participating iinstitutions						
	N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
Factor 13. Design Experience Issues																	
Q72. System Design - To what degree did your system design experience address the following: Addressed Economic issues	48	5.42	1.46	5.57	1.31	4.40	6.23	-0.15	▼	14	5.64	1.28	4.40	6.26	-0.22	▼	29
Q73. System Design - To what degree did your system design experience address the following: Addressed Environmental issues	48	4.58	1.53	5.27	1.35	4.00	5.70	-0.69	▼	19	5.32	1.37	4.00	6.15	-0.74	▼	39
Q74. System Design - To what degree did your system design experience address the following: Addressed Social issues	48	3.75	1.59	4.37	1.56	3.17	4.90	-0.62	▼	19	4.50	1.55	3.17	5.85	-0.75	▼	37
Q75. System Design - To what degree did your system design experience address the following: Addressed Political issues	48	3.35	1.59	3.86	1.65	2.33	4.47	-0.51	▼	17	3.97	1.65	2.33	5.54	-0.62	▼	35
Q76. System Design - To what degree did your system design experience address the following: Addressed Ethical issues	48	3.96	1.65	4.75	1.54	2.90	5.50	-0.79	▼	19	4.87	1.54	2.90	6.15	-0.91	▼	37
Q77. System Design - To what degree did your system design experience address the following: Addressed Health and Safety issues	48	4.83	1.39	5.44	1.32	3.70	6.19	-0.61	▼	17	5.55	1.33	3.70	6.60	-0.72	▼	37
Q78. System Design - To what degree did your system design experience address the following: Addressed Manufacturability issues	48	5.23	1.34	5.22	1.43	3.78	5.72	0.01	▲	11	5.33	1.42	3.78	6.38	-0.10	▼	26
Q79. System Design - To what degree did your system design experience address the following: Addressed Sustainability issues	48	5.15	1.44	5.09	1.49	3.67	6.00	0.06	▲	10	5.19	1.48	3.67	6.00	-0.04	▼	24
Factor 14. Laboratory Facilities																	
Q80. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Established an atmosphere conducive to learning	48	5.56	1.06	5.09	1.45	3.67	5.89	0.47	▲	5	5.32	1.40	3.67	6.26	0.24	▲	15
Q81. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Fostered student/faculty interaction	48	5.50	1.24	5.10	1.50	3.50	5.87	0.40	▲	8	5.36	1.44	3.50	6.26	0.14	▲	21

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University of Wisconsin-Madison

Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

	Your Data			Carnegie Class Data and Comparisons There are 27 institutions in this Carnegie Class.							All Institutions Data and Comparisons There are 73 total participating iinstitutions						
	N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
Factor 15: Overall Program Effectiveness																	
Q83. The Bottom Line - Overall Satisfaction - Extent that the Undergraduate Engineering program experience fulfill expectations	48	5.25	1.31	4.78	1.45	3.14	5.74	0.47	▲	5	5.01	1.39	3.14	6.00	0.24	▲	16
Q84. Comparing the expense to the quality of education, rate the value of the investment made in Undergraduate Engineering program	48	5.56	1.43	4.86	1.54	3.60	6.14	0.70	▲	3	4.89	1.50	3.60	6.60	0.67	▲	8
Q85. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering Major to a close friend	48	5.21	1.72	4.96	1.78	1.71	5.89	0.25	▲	9	5.22	1.67	1.71	6.46	-0.01	▼	23
Q86. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering School to a close friend	48	5.79	1.26	5.22	1.53	4.44	6.47	0.57	▲	5	5.33	1.51	3.36	6.47	0.46	▲	13

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Factor and Question Analysis: Carnegie Class and All Institution Comparison for Engineering Major: Chemical/Molecular

		Your Data			Carnegie Class Data and Comparisons There are 27 institutions in this Carnegie Class.							All Institutions Data and Comparisons There are 73 total participating iinstitutions						
		N	Mean	Std Dev	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank	Wt Mean*	Std Dev*	Range of Means Min	Range of Means Max	Difference in Means	Arrow	Rank
NOTE: These question(s) below do not comprise a study factor.																		
Q16.	Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Calculus	44	4.86	1.50	5.24	1.55	4.11	5.83	-0.38	▼	19	5.17	1.59	4.11	6.54	-0.31	▼	33
Q17.	Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Differential Equations	47	4.38	1.74	4.96	1.70	3.82	6.50	-0.58	▼	19	5.08	1.73	3.00	6.92	-0.70	▼	37
Q18.	Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Physics	45	4.00	1.70	4.47	1.77	2.46	5.91	-0.47	▼	20	4.49	1.77	2.46	5.91	-0.49	▼	37
Q19.	Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Chemistry	47	5.72	1.12	5.64	1.32	4.64	6.75	0.08	▲	11	5.46	1.41	4.09	6.75	0.26	▲	15
Q32.	Satisfaction with: Quality of Engineering classrooms	47	4.94	1.21	4.93	1.52	3.65	5.81	0.01	▲	13	5.15	1.52	3.12	6.80	-0.21	▼	28
Q34.	Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by faculty	47	4.30	1.92	4.99	1.79	3.17	6.48	-0.69	▼	18	5.24	1.70	3.17	6.48	-0.94	▼	35
Q35.	Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by non-faculty	27	4.81	1.22	5.00	1.55	3.50	5.98	-0.19	▼	11	4.96	1.54	3.43	5.98	-0.15	▼	23
Q60.	Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Recognize need to engage in lifelong learning	48	5.67	1.45	5.57	1.42	4.77	6.10	0.10	▲	8	5.70	1.35	4.77	6.61	-0.03	▼	20
Q82.	Course Comparison - Quality of teaching in your Engineering courses compare to the quality of teaching in Non-Engineering courses on this campus	48	5.42	1.22	5.05	1.46	3.00	6.00	0.37	▲	8	5.38	1.44	3.00	6.57	0.04	▲	22

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University of Wisconsin-Madison

ABET Questions: All Comparative Groups for Engineering Major: Chemical/Molecular

Question Means Sorted from Highest Mean to Lowest Mean	Your Data	Select 6 Comparison (There are 6 institutions in this comparison group.)									Carnegie Class			All Institutions		
		Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Mean	Difference	Rank	Mean	Difference	Rank	Mean	Difference	Rank
ABET a: Ability to apply knowledge of mathematics, science and engineering																
Q47. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of engineering	6.21	6.35	5.50	5.83	6.13	5.88	6.29	6.08	0.13 ▲	3	6.17	0.04 ▲	7	6.26	-0.05 ▼	24
Q46. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of science	6.04	6.15	5.46	5.17	5.73	6.19	6.21	5.97	0.07 ▲	4	6.00	0.04 ▲	9	6.06	-0.02 ▼	23
Q45. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of mathematics	6.00	6.15	5.54	5.33	5.60	6.11	5.86	5.93	0.07 ▲	3	5.97	0.03 ▲	10	5.97	0.03 ▲	18
ABET b: Ability to design and conduct experiments, as well as to analyze and interpret data																
Q50. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Analyze and interpret data	6.19	6.16	5.62	5.00	6.13	6.11	5.93	5.99	0.20 ▲	1	5.95	0.24 ▲	5	6.03	0.16 ▲	16
Q49. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Conduct experiments	5.92	6.01	5.35	5.33	6.07	4.81	5.57	5.63	0.29 ▲	3	5.59	0.33 ▲	4	5.72	0.20 ▲	13
Q48. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design experiments	5.29	5.84	4.46	5.17	5.73	4.63	5.57	5.34	-0.05 ▼	4	5.36	-0.07 ▼	15	5.53	-0.24 ▼	35

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University of Wisconsin-Madison

ABET Questions: All Comparative Groups for Engineering Major: Chemical/Molecular

Question Means Sorted from Highest Mean to Lowest Mean	Your Data	Select 6 Comparison (There are 6 institutions in this comparison group.)									Carnegie Class			All Institutions		
		Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Mean	Difference	Rank	Mean	Difference	Rank	Mean	Difference	Rank
ABET c. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability																
Q51. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design a system, component, or process to meet desired needs	5.65	5.82	4.69	5.50	5.93	5.52	5.79	5.57	0.08 ▲	4	5.61	0.04 ▲	10	5.74	-0.09 ▼	29
Q72. System Design - To what degree did your system design experience address the following: Addressed Economic issues	5.42	5.52	5.19	4.67	6.20	5.85	5.50	5.55	-0.13 ▼	5	5.57	-0.15 ▼	14	5.64	-0.22 ▼	29
Q78. System Design - To what degree did your system design experience address the following: Addressed Manufacturability issues	5.23	5.72	4.24	3.83	5.53	5.12	5.36	5.25	-0.02 ▼	4	5.22	0.01 ▲	11	5.33	-0.10 ▼	26
Q79. System Design - To what degree did your system design experience address the following: Addressed Sustainability issues	5.15	5.43	4.08	3.67	4.07	5.41	5.36	4.99	0.16 ▲	4	5.09	0.06 ▲	10	5.19	-0.04 ▼	24
Q77. System Design - To what degree did your system design experience address the following: Addressed Health and Safety issues	4.83	5.66	4.38	4.67	5.93	5.41	5.43	5.37	-0.54 ▼	5	5.44	-0.61 ▼	17	5.55	-0.72 ▼	37
Q73. System Design - To what degree did your system design experience address the following: Addressed Environmental issues	4.58	5.61	4.19	4.00	5.27	5.37	5.50	5.22	-0.64 ▼	5	5.27	-0.69 ▼	19	5.32	-0.74 ▼	39
Q76. System Design - To what degree did your system design experience address the following: Addressed Ethical issues	3.96	5.29	4.69	4.17	4.67	4.96	4.36	4.94	-0.98 ▼	7	4.75	-0.79 ▼	19	4.87	-0.91 ▼	37
Q74. System Design - To what degree did your system design experience address the following: Addressed Social issues	3.75	4.75	3.81	3.17	4.60	4.42	4.21	4.41	-0.66 ▼	6	4.37	-0.62 ▼	19	4.50	-0.75 ▼	37
Q75. System Design - To what degree did your system design experience address the following: Addressed Political issues	3.35	4.47	3.62	2.33	3.60	3.81	3.57	3.97	-0.62 ▼	6	3.86	-0.51 ▼	17	3.97	-0.62 ▼	35

▼: UW-Madison has a lower mean than the mean of the comparative group ▲: UW-Madison has a higher mean than the mean of the comparative group

NOTE: Carnegie Class and All Institutions Means are weighted are calculated without University of Wisconsin-Madison's data included

NOTE: There are 27 institutions in this Carnegie Class. There are 73 total participating institutions.

University of Wisconsin-Madison

ABET Questions: All Comparative Groups for Engineering Major: Chemical/Molecular

Question Means Sorted from Highest Mean to Lowest Mean	Your Data	Select 6 Comparison (There are 6 institutions in this comparison group.)									Carnegie Class			All Institutions		
		Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Mean	Difference	Rank	Mean	Difference	Rank	Mean	Difference	Rank
ABET d: Ability to function on multi-disciplinary teams																
Q52. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Function on multidisciplinary teams	5.48	5.73	4.50	5.00	5.67	5.37	5.36	5.40	0.08 ▲	3	5.12	0.36 ▲	6	5.23	0.25 ▲	15
ABET e: Ability to identify, formulate, and solve engineering problems																
Q55. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems	6.27	6.07	5.58	5.17	5.53	5.81	6.00	5.85	0.42 ▲	1	5.91	0.36 ▲	2	6.01	0.26 ▲	7
Q53. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Identify engineering problems	5.69	5.93	5.46	5.33	5.87	5.48	5.86	5.74	-0.05 ▼	4	5.78	-0.09 ▼	11	5.85	-0.16 ▼	27
Q54. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Formulate engineering problems	5.56	5.76	5.00	5.17	5.67	5.07	5.57	5.47	0.09 ▲	4	5.50	0.06 ▲	10	5.61	-0.05 ▼	24
ABET f: Understanding of professional and ethical responsibility																
Q56. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities	4.77	5.81	4.88	5.83	5.40	5.22	4.93	5.44	-0.67 ▼	7	5.37	-0.60 ▼	19	5.52	-0.75 ▼	39
ABET g: Ability to communicate effectively																
Q59. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using written progress reports	5.98	6.01	5.28	5.83	5.67	5.63	5.86	5.77	0.21 ▲	2	5.75	0.23 ▲	6	5.79	0.19 ▲	14
Q58. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using oral progress reports	4.98	5.66	4.91	5.50	5.00	5.11	5.79	5.39	-0.41 ▼	6	5.51	-0.53 ▼	20	5.59	-0.61 ▼	40

▼: UW-Madison has a lower mean than the mean of the comparative group ▲: UW-Madison has a higher mean than the mean of the comparative group

NOTE: Carnegie Class and All Institutions Means are weighted are calculated without University of Wisconsin-Madison's data included

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University of Wisconsin-Madison

ABET Questions: All Comparative Groups for Engineering Major: Chemical/Molecular

Question Means Sorted from Highest Mean to Lowest Mean	Your Data	Select 6 Comparison (There are 6 institutions in this comparison group.)									Carnegie Class			All Institutions		
		Sel 1	Sel 2	Sel 3	Sel 4	Sel 5	Sel 6	Mean	Difference	Rank	Mean	Difference	Rank	Mean	Difference	Rank
ABET h. Broad education necessary to understand the impact of engineering solutions in a global and societal context																
Q69. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: A global/societal context	5.19	5.29	4.54	4.50	4.53	5.19	5.29	5.04	0.15 ▲	4	5.19	0.00	13	5.24	-0.05 ▼	26
ABET i. Recognition of the need for, and an ability to engage in, life-long learning																
Q60. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Recognize need to engage in lifelong learning	5.67	5.73	4.77	5.67	5.87	5.30	5.71	5.50	0.17 ▲	4	5.57	0.10 ▲	8	5.70	-0.03 ▼	20
ABET j. Knowledge of contemporary issues																
Q61. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand contemporary issues	5.23	5.52	4.31	5.17	4.93	5.37	5.64	5.23	0.00	4	5.19	0.04 ▲	10	5.31	-0.08 ▼	25
ABET k. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice																
Q62. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use modern engineering tools specific to your primary academic major	5.74	5.63	4.46	5.83	5.87	5.41	5.64	5.43	0.31 ▲	3	5.46	0.28 ▲	5	5.53	0.21 ▲	14

▼: UW-Madison has a lower mean than the mean of the comparative group ▲: UW-Madison has a higher mean than the mean of the comparative group

NOTE: Carnegie Class and All Institutions Means are weighted are calculated without University of Wisconsin-Madison's data included

NOTE: There are 27 institutions in this Carnegie Class. There are 73 total participating institutions.

University of Wisconsin-Madison

Highest and Lowest Mean Questions for Engineering Major: Chemical/Molecular

This set of questions are the highest mean questions for University of Wisconsin-Madison	# Responses	Mean	Std Dev
Q55. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems	48	6.27	0.81
Q47. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of engineering	48	6.21	1.08
Q50. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Analyze and interpret data	48	6.19	0.88
Q31. Satisfaction with: Availability of courses in major	48	6.04	1.29
Q46. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of science	48	6.04	0.89
Q45. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of mathematics	48	6.00	1.04
Q36. Advising/Computing - Advising/Computing - Satisfaction with: Quality of computing resources	48	6.00	0.87
Q59. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using written progress reports	47	5.98	0.89
Q30. Satisfaction with: Average size of major courses	48	5.94	1.09
Q49. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Conduct experiments	48	5.92	0.91
Q64. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on knowledge from previous course work	48	5.90	0.98
Q37. Classmates - Satisfaction with characteristics of your fellow students': Academic quality	48	5.88	0.93
Q65. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on skills from previous course work	48	5.83	1.07
Q86. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering School to a close friend	48	5.79	1.26
Q62. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use modern engineering tools specific to your	46	5.74	1.24

This set of questions are the lowest mean questions for University of Wisconsin-Madison	# Responses	Mean	Std Dev
Q75. System Design - To what degree did your system design experience address the following: Addressed Political issues	48	3.35	1.59
Q74. System Design - To what degree did your system design experience address the following: Addressed Social issues	48	3.75	1.59
Q14. Instruction and Faculty in your Engineering Major	48	3.85	1.14
Q26. Satisfaction with: Opportunities for interaction with practitioners	37	3.92	1.53
Q76. System Design - To what degree did your system design experience address the following: Addressed Ethical issues	48	3.96	1.65
Q18. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Physics	45	4.00	1.70
Q23. Satisfaction with: Amount of work required of in major courses	48	4.04	1.58
Q42. Career Services - Career Services - Satisfaction with: Access to school's alumni to cultivate career opportunities	38	4.24	1.56
Q34. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by faculty	47	4.30	1.92
Q15. Instruction and Faculty in your Engineering Major	47	4.34	1.29
Q17. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Differential Equations	47	4.38	1.74
Q67. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Pilot test a component prior to implementation	44	4.43	1.36
Q73. System Design - To what degree did your system design experience address the following: Addressed Environmental issues	48	4.58	1.53
Q25. Satisfaction with: Opportunities for practical experiences within Undergraduate curriculum	48	4.71	1.61
Q24. Satisfaction with: Engineering curriculum instructors presentation of technology issues	48	4.73	1.35

University of Wisconsin-Madison

Question Competitive Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

Greatest Positive Difference Between Your Data and Your Select 6		UW-Madison	Select 6	Difference
Q84.	Comparing the expense to the quality of education, rate the value of the investment made in Undergraduate Engineering program	5.56	4.80	0.76
Q31.	Satisfaction with: Availability of courses in major	6.04	5.37	0.67
Q82.	Course Comparison - Quality of teaching in your Engineering courses compare to the quality of teaching in Non-Engineering courses on this campus	5.42	4.87	0.55
Q83.	The Bottom Line - Overall Satisfaction - Extent that the Undergraduate Engineering program experience fulfill expectations	5.25	4.74	0.51
Q36.	Advising/Computing - Advising/Computing - Satisfaction with: Quality of computing resources	6.00	5.51	0.49
Q81.	Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Fostered student/faculty interaction	5.50	5.03	0.47
Q55.	Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems	6.27	5.85	0.42
Q80.	Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Established an atmosphere conducive to learning	5.56	5.15	0.41
Q85.	How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering Major to a close friend	5.21	4.88	0.33
Q62.	Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use modern engineering tools specific to your primary academic major	5.74	5.43	0.31
Q40.	Career Services - Career Services - Satisfaction with: Assistance in preparation for permanent job search	5.42	5.12	0.30
Q13.	Instruction and Faculty in your Engineering Major Quality of: Teaching	5.17	4.88	0.29
Q49.	Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Conduct experiments	5.92	5.63	0.29
Q86.	How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering School to a close friend	5.79	5.51	0.28
Q43.	Career Services - Career Services - Satisfaction with: Number of companies recruiting on campus	5.57	5.31	0.26

Greatest Negative Difference Between Your Data and Your Select 6		UW-Madison	Select 6	Difference

NOTE: If a section is blank, this means that there were no questions that met those conditions.

University of Wisconsin-Madison

Question Competitive Analysis: Select 6 Comparison for Engineering Major: Chemical/Molecular

Greatest Positive Difference Between Your Data and Your Select 6	UW-Madison	Select 6	Difference
Q76. System Design - To what degree did your system design experience address the following: Addressed Ethical issues	3.96	4.94	-0.98
Q34. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by faculty	4.30	5.03	-0.73
Q56. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities	4.77	5.44	-0.67
Q74. System Design - To what degree did your system design experience address the following: Addressed Social issues	3.75	4.41	-0.66
Q73. System Design - To what degree did your system design experience address the following: Addressed Environmental issues	4.58	5.22	-0.64
Q75. System Design - To what degree did your system design experience address the following: Addressed Political issues	3.35	3.97	-0.62
Q17. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Differential Equations	4.38	5.00	-0.62
Q23. Satisfaction with: Amount of work required of in major courses	4.04	4.61	-0.57
Q77. System Design - To what degree did your system design experience address the following: Addressed Health and Safety issues	4.83	5.37	-0.54
Q16. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Calculus	4.86	5.38	-0.52
Q14. Instruction and Faculty in your Engineering Major Quality of: Feedback on assignments (other than grades)	3.85	4.26	-0.41
Q26. Satisfaction with: Opportunities for interaction with practitioners	3.92	4.33	-0.41
Q58. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using oral progress reports	4.98	5.39	-0.41
Q18. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Physics	4.00	4.38	-0.38
Q15. Instruction and Faculty in your Engineering Major Quality of: Student/faculty interaction	4.34	4.69	-0.35

NOTE: If a section is blank, this means that there were no questions that met those conditions.

University of Wisconsin-Madison

Question Competitive Analysis: Longitudinal Comparison for Engineering Major: Chemical/Molecular

Greatest Positive Difference Between This Year's Question Means and Last Year's Question Means	2008	2005	Difference
Q81. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Fostered student/faculty interaction	5.50	5.00	0.50
Q84. Comparing the expense to the quality of education, rate the value of the investment made in Undergraduate Engineering program	5.56	5.08	0.48
Q86. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering School to a close friend	5.79	5.34	0.45
Q80. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Established an atmosphere conducive to learning	5.56	5.18	0.38
Q85. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering Major to a close friend	5.21	4.89	0.32
Q33. Satisfaction with: Amount of work in relationship to what was learned	4.73	4.42	0.31
Q31. Satisfaction with: Availability of courses in major	6.04	5.74	0.30
Q52. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Function on multidisciplinary teams	5.48	5.18	0.30
Q39. Classmates - Satisfaction with characteristics of your fellow students': Level of camaraderie	5.73	5.46	0.27
Q83. The Bottom Line - Overall Satisfaction - Extent that the Undergraduate Engineering program experience fulfill expectations	5.25	5.00	0.25
Q67. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Pilot test a component prior to implementation	4.43	4.19	0.24
Q22. Satisfaction with: Responsiveness to major course instructors to student concerns	5.20	4.97	0.23
Q23. Satisfaction with: Amount of work required of in major courses	4.04	3.82	0.22
Q69. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: A global/societal context	5.19	4.97	0.22
Q19. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Chemistry	5.72	5.50	0.22

Greatest Negative Difference Between This Year's Question Means and Last Year's Question Means	2008	2005	Difference
Q73. System Design - To what degree did your system design experience address the following: Addressed Environmental issues	4.58	5.53	-0.95
Q76. System Design - To what degree did your system design experience address the following: Addressed Ethical issues	3.96	4.71	-0.75
Q77. System Design - To what degree did your system design experience address the following: Addressed Health and Safety issues	4.83	5.39	-0.56
Q74. System Design - To what degree did your system design experience address the following: Addressed Social issues	3.75	4.27	-0.52
Q24. Satisfaction with: Engineering curriculum instructors presentation of technology issues	4.73	5.21	-0.48
Q72. System Design - To what degree did your system design experience address the following: Addressed Economic issues	5.42	5.89	-0.47
Q56. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities	4.77	5.21	-0.44
Q45. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of mathematics	6.00	6.37	-0.37
Q40. Career Services - Career Services - Satisfaction with: Assistance in preparation for permanent job search	5.42	5.78	-0.36
Q51. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design a system, component, or process to meet desired needs	5.65	5.97	-0.32
Q32. Satisfaction with: Quality of Engineering classrooms	4.94	5.26	-0.32
Q35. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by non-faculty	4.81	5.12	-0.31
Q46. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of science	6.04	6.34	-0.30
Q75. System Design - To what degree did your system design experience address the following: Addressed Political issues	3.35	3.65	-0.30
Q79. System Design - To what degree did your system design experience address the following: Addressed Sustainability issues	5.15	5.45	-0.30

NOTE: If a section is blank, this means that there were no questions that met those conditions.

University of Wisconsin-Madison

Longitudinal: Five-Year Comparison for Engineering Major: Chemical/Molecular

	2009's Data			2008's Data			Comparison		Previous Year's Data							
									2007's Data		2006's Data		2005's Data		2004's Data	
	N	Mean	Std Dev	N	Mean	Std Dev	Difference	Arrow	Mean	Difference	Mean	Difference	Mean	Difference	Mean	Difference
Factor 1: Instruction & Interaction in Major Courses																
Q13. Instruction and Faculty in your Engineering Major Quality of: Teaching	48	5.17	1.17	38	5.03	1.15	0.14	↑	4.71	0.46 ↑	5.12	0.05	5.01	0.16 ↑	5.24	-0.07
Q14. Instruction and Faculty in your Engineering Major Quality of: Feedback on assignments (other than grades)	48	3.85	1.15	38	4.08	1.50	-0.23	↓	4.03	-0.18 ↓	4.05	-0.20 ↓	3.79	0.06	4.08	-0.23 ↓
Q15. Instruction and Faculty in your Engineering Major Quality of: Student/faculty interaction	47	4.34	1.31	38	4.34	1.28	0.00		4.67	-0.33 ↓	4.42	-0.08	4.46	-0.12 ↓	4.55	-0.21 ↓
Factor 2: Aspects of Major Courses																
Q20. Satisfaction with: Grades in major courses accurately reflecting students' level of performance	47	4.96	1.76	38	4.89	1.48	0.07		4.95	0.01	4.95	0.01	4.63	0.33 ↑	4.88	0.08
Q21. Satisfaction with: Accessibility of major course instructors outside of class	48	5.48	1.11	37	5.27	1.47	0.21	↑	5.64	-0.16 ↓	5.73	-0.25 ↓	5.32	0.16 ↑	5.60	-0.12 ↓
Q22. Satisfaction with: Responsiveness to major course instructors to student concerns	46	5.20	1.24	38	4.97	1.26	0.23	↑	5.33	-0.13 ↓	5.38	-0.18 ↓	5.40	-0.20 ↓	5.31	-0.11 ↓
Q23. Satisfaction with: Amount of work required of in major courses	48	4.04	1.60	38	3.82	1.84	0.22	↑	3.97	0.07	4.06	-0.02	4.18	-0.14 ↓	3.98	0.06
Q30. Satisfaction with: Average size of major courses	48	5.94	1.10	38	5.84	1.13	0.10	↑	5.85	0.09	5.80	0.14 ↑	5.76	0.18 ↑	5.96	-0.02
Q31. Satisfaction with: Availability of courses in major	48	6.04	1.30	38	5.74	1.33	0.30	↑	5.73	0.31 ↑	5.78	0.26 ↑	5.84	0.20 ↑	5.84	0.20 ↑
Factor 3: Breadth of Curriculum																
Q24. Satisfaction with: Engineering curriculum instructors presentation of technology issues	48	4.73	1.36	38	5.21	1.28	-0.48	↓	4.91	-0.18 ↓	4.95	-0.22 ↓	4.77	-0.04	5.10	-0.37 ↓
Q25. Satisfaction with: Opportunities for practical experiences within Undergraduate curriculum	48	4.71	1.62	38	4.66	1.62	0.05		4.51	0.20 ↑	4.80	-0.09	5.06	-0.35 ↓	4.49	0.22 ↑
Q26. Satisfaction with: Opportunities for interaction with practitioners	37	3.92	1.55	36	4.11	1.53	-0.19	↓	4.18	-0.26 ↓	4.11	-0.19 ↓	4.50	-0.58 ↓	4.27	-0.35 ↓
Q33. Satisfaction with: Amount of work in relationship to what was learned	48	4.73	1.41	38	4.42	1.75	0.31	↑	4.58	0.15 ↑	4.83	-0.10 ↓	4.73	0.00	4.88	-0.15 ↓

Difference = Difference between means. Arrow Designations - ↓ denotes a difference < -0.1; ↑ denotes difference > 0.1

NA: Not Applicable - Your institution did not participate in the study that year, the factor/question is new, or this population did not participate that year

University of Wisconsin-Madison

Longitudinal: Five-Year Comparison for Engineering Major: Chemical/Molecular

	2009's Data			2008's Data			Comparison		Previous Year's Data							
									2007's Data		2006's Data		2005's Data		2004's Data	
	N	Mean	Std Dev	N	Mean	Std Dev	Difference	Arrow	Mean	Difference	Mean	Difference	Mean	Difference	Mean	Difference
Factor 4: Team & Extracurricular Activities																
Q27. Satisfaction with: Value derived from team experiences	48	5.23	1.59	37	5.41	0.96	-0.18	↓	5.54	-0.31 ↓	5.44	-0.21 ↓	5.34	-0.11 ↓	5.51	-0.28 ↓
Q28. Satisfaction with: Value of Engineering program student organization activities	41	4.73	1.87	34	5.03	1.42	-0.30	↓	5.00	-0.27 ↓	5.20	-0.47 ↓	5.05	-0.32 ↓	5.12	-0.39 ↓
Q29. Satisfaction with: Leadership opportunities in Engineering program's extracurricular activities	38	5.03	1.76	35	5.03	1.64	0.00		5.05	-0.02	4.96	0.07	5.23	-0.20 ↓	5.15	-0.12 ↓
Factor 5: Computing Resources																
Q36. Advising/Computing - Advising/Computing - Satisfaction with: Quality of computing resources	48	6.00	0.88	38	6.18	0.80	-0.18	↓	6.20	-0.20 ↓	6.46	-0.46 ↓	6.35	-0.35 ↓	6.00	0.00
Factor 6: Fellow Students																
Q37. Classmates - Satisfaction with characteristics of your fellow students': Academic quality	48	5.88	0.94	38	5.76	1.05	0.12	↑	5.77	0.11 ↑	5.88	0.00	5.94	-0.06	5.88	0.00
Q38. Classmates - Satisfaction with characteristics of your fellow students': Ability to work in teams	48	5.31	1.39	38	5.55	0.89	-0.24	↓	5.73	-0.42 ↓	5.57	-0.26 ↓	5.62	-0.31 ↓	5.71	-0.40 ↓
Q39. Classmates - Satisfaction with characteristics of your fellow students': Level of camaraderie	48	5.73	1.57	37	5.46	1.28	0.27	↑	5.51	0.22 ↑	5.62	0.11 ↑	5.68	0.05	5.57	0.16 ↑
Factor 7: Career Services and Job Placement																
Q40. Career Services - Career Services - Satisfaction with: Assistance in preparation for permanent job search	43	5.42	1.82	36	5.78	1.15	-0.36	↓	5.54	-0.12 ↓	5.79	-0.37 ↓	5.68	-0.26 ↓	5.56	-0.14 ↓
Q41. Career Services - Career Services - Satisfaction with: Geographic distribution of companies recruiting on campus	43	4.91	1.54	37	5.14	1.55	-0.23	↓	5.28	-0.37 ↓	5.45	-0.54 ↓	5.10	-0.19 ↓	5.39	-0.48 ↓
Q42. Career Services - Career Services - Satisfaction with: Access to school's alumni to cultivate career opportunities	38	4.24	1.58	35	4.37	1.59	-0.13	↓	4.27	-0.03	4.58	-0.34 ↓	4.00	0.24 ↑	4.29	-0.05
Q43. Career Services - Career Services - Satisfaction with: Number of companies recruiting on campus	44	5.57	1.63	38	5.63	1.48	-0.06		6.00	-0.43 ↓	5.74	-0.17 ↓	5.69	-0.12 ↓	5.04	0.53 ↑
Q44. Career Services - Career Services - Satisfaction with: Quality of companies recruiting on campus	45	5.64	1.49	37	5.70	1.20	-0.06		6.03	-0.39 ↓	5.84	-0.20 ↓	5.53	0.11 ↑	5.80	-0.16 ↓

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University of Wisconsin-Madison

Longitudinal: Five-Year Comparison for Engineering Major: Chemical/Molecular

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	N	Mean	Std Dev	N	Mean	Std Dev	Difference	Arrow	Mean	Difference	Mean	Difference	Mean	Difference	Mean	Difference
Factor 5: System Design & Problem Solving	[illegible]															
Q48. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design experiments	48	5.29	1.17	38	5.55	1.01	-0.26	↓	5.47	-0.18 ↓	5.52	-0.23 ↓	5.59	-0.30 ↓	5.49	-0.20 ↓
Q49. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Conduct experiments	48	5.92	0.92	38	5.89	1.01	0.03		5.80	0.12 ↑	6.06	-0.14 ↓	6.06	-0.14 ↓	5.98	-0.06
Q50. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Analyze and interpret data	48	6.19	0.89	38	6.05	0.98	0.14	↑	6.26	-0.07	6.23	-0.04	6.29	-0.10 ↓	6.35	-0.16 ↓
Q51. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design a system, component, or process to meet desired needs	48	5.65	1.02	38	5.97	0.85	-0.32	↓	5.71	-0.06	5.52	0.13 ↑	5.76	-0.11 ↓	5.60	0.05
Q52. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Function on multidisciplinary teams	48	5.48	1.52	38	5.18	1.16	0.30	↑	5.70	-0.22 ↓	5.54	-0.06	5.42	0.06	5.55	-0.07
Factor 9: Impact of Engineering Solutions	[illegible]															
Q56. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities	48	4.77	1.57	38	5.21	1.40	-0.44	↓	5.05	-0.28 ↓	4.98	-0.21 ↓	4.43	0.34 ↑	4.76	0.01
Q69. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: A global/societal context	48	5.19	1.47	37	4.97	1.34	0.22	↑	4.89	0.30 ↑	4.80	0.39 ↑	4.61	0.58 ↑	4.88	0.31 ↑

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	N	Mean	Std Dev	N	Mean	Std Dev	Difference	Arrow	Mean	Difference	Mean	Difference	Mean	Difference	Mean	Difference
Factor 10: Use of Tools and Text	46	5.34	0.89	37	5.37	0.82	-0.03		5.16	0.18	5.38	-0.04	5.33	0.01	5.19	0.15
Q58. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using oral progress reports	46	4.98	1.31	37	5.19	1.17	-0.21	↓	4.97	0.01	5.34	-0.36	↓ 4.99	-0.01	5.30	-0.32 ↓
Q59. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using written progress reports	47	5.98	0.90	37	5.81	1.13	0.17	↑	5.83	0.15 ↑	5.89	0.09	5.97	0.01	5.76	0.22 ↑
Q62. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use modern engineering tools specific to your primary academic major	46	5.74	1.25	38	6.00	0.99	-0.26	↓	5.44	0.30 ↑	5.48	0.26 ↑	5.54	0.20 ↑	5.39	0.35 ↑
Q67. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Pilot test a component prior to implementation	44	4.43	1.37	32	4.19	1.60	0.24	↑	4.16	0.27 ↑	4.38	0.05	3.90	0.53 ↑	3.65	0.78 ↑
Q68. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use text materials to support project design	47	5.62	1.24	36	5.44	1.18	0.18	↑	5.33	0.29 ↑	5.70	-0.08	5.54	0.08	5.45	0.17 ↑

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	N	Mean	Std Dev	N	Mean	Std Dev	Difference	Arrow	Mean	Difference	Mean	Difference	Mean	Difference	Mean	Difference		
Factor 11. Apply Knowledge and Identify Problems	48	6.36	0.76	38	6.00	0.78	0.14	↑	6.36	0.00	6.05	0.09	6.31	0.05	6.36	0.00		
Q45. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of mathematics	48	6.00	1.05	38	6.37	0.79	-0.37	↓	6.17	-0.17 ↓	6.28	-0.28 ↓	6.21	-0.21 ↓	6.22	-0.22 ↓		
Q46. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of science	48	6.04	0.90	38	6.34	0.78	-0.30	↓	6.08	-0.04	6.20	-0.16 ↓	6.10	-0.06	6.22	-0.18 ↓		
Q47. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of engineering	48	6.21	1.09	38	6.18	1.01	0.03		6.15	0.06	6.03	0.18 ↑	6.03	0.18 ↑	6.14	0.07		
Q53. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Identify engineering problems	48	5.69	0.99	38	5.84	1.00	-0.15	↓	5.73	-0.04	6.05	-0.36 ↓	6.04	-0.35 ↓	6.00	-0.31 ↓		
Q54. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Formulate engineering problems	48	5.56	0.99	37	5.70	1.08	-0.14	↓	5.52	0.04	5.82	-0.26 ↓	5.74	-0.18 ↓	5.86	-0.30 ↓		
Q55. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems	48	6.27	0.82	38	6.13	0.91	0.14	↑	6.06	0.21 ↑	6.06	0.21 ↑	6.25	0.02	6.20	0.07		
Q61. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand contemporary issues	47	5.23	1.35	37	5.35	1.16	-0.12	↓	5.35	-0.12 ↓	5.23	0.00	4.75	0.48 ↑	5.12	0.11 ↑		

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									2007's Data		2006's Data		2005's Data		2004's Data	
	N	Mean	Std Dev	N	Mean	Std Dev	Difference	Arrow	Mean	Difference	Mean	Difference	Mean	Difference	Mean	Difference
Factor 12: Design Experience Built on Coursework	48	5.60	0.97	38	5.59	0.83	0.01		5.60	0.00	5.52	0.07	5.45	0.14	5.56	0.03
Q64. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on knowledge from previous course work	48	5.90	0.99	38	5.76	1.05	0.14	↑	5.83	0.07	5.88	0.02	5.58	0.32 ↑	5.92	-0.02
Q65. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on skills from previous course work	48	5.83	1.08	38	5.87	0.91	-0.04		5.73	0.10 ↑	5.86	-0.03	5.55	0.28 ↑	5.82	0.01
Q66. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Incorporated engineering standards	47	5.06	1.33	38	5.13	1.12	-0.07		5.23	-0.17 ↓	5.20	-0.14 ↓	5.14	-0.08	5.24	-0.18 ↓

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Factor 16: Design Experience Issues																
Q72. System Design - To what degree did your system design experience address the following: Addressed Economic issues	48	5.42	1.47	38	5.89	1.18	-0.47	↓	5.42	0.00	5.16	0.26 ↑	5.66	-0.24 ↓	5.63	-0.21 ↓
Q73. System Design - To what degree did your system design experience address the following: Addressed Environmental issues	48	4.58	1.54	38	5.53	1.31	-0.95	↓	5.02	-0.44 ↓	4.88	-0.30 ↓	4.33	0.25 ↑	4.92	-0.34 ↓
Q74. System Design - To what degree did your system design experience address the following: Addressed Social issues	48	3.75	1.60	37	4.27	1.37	-0.52	↓	4.27	-0.52 ↓	4.20	-0.45 ↓	3.61	0.14 ↑	3.88	-0.13 ↓
Q75. System Design - To what degree did your system design experience address the following: Addressed Political issues	48	3.35	1.60	37	3.65	1.48	-0.30	↓	3.65	-0.30 ↓	3.62	-0.27 ↓	3.03	0.32 ↑	3.24	0.11 ↑
Q76. System Design - To what degree did your system design experience address the following: Addressed Ethical issues	48	3.96	1.66	38	4.71	1.45	-0.75	↓	4.61	-0.65 ↓	4.45	-0.49 ↓	4.16	-0.20 ↓	4.04	-0.08
Q77. System Design - To what degree did your system design experience address the following: Addressed Health and Safety issues	48	4.83	1.40	38	5.39	1.39	-0.56	↓	5.06	-0.23 ↓	4.92	-0.09	4.33	0.50 ↑	4.45	0.38 ↑
Q78. System Design - To what degree did your system design experience address the following: Addressed Manufacturability issues	48	5.23	1.36	38	5.24	1.62	-0.01		5.18	0.05	4.84	0.39 ↑	4.65	0.58 ↑	4.61	0.62 ↑
Q79. System Design - To what degree did your system design experience address the following: Addressed Sustainability issues	48	5.15	1.46	38	5.45	1.22	-0.30	↓	5.08	0.07	4.83	0.32 ↑	4.53	0.62 ↑	4.73	0.42 ↑
Factor 17: Laboratory Facilities																
Q80. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Established an atmosphere conducive to learning	48	5.56	1.07	38	5.18	1.37	0.38	↑	5.47	0.09	5.43	0.13 ↑	5.41	0.15 ↑	5.27	0.29 ↑
Q81. Laboratory Facilities</b - Laboratory Facilities - Degree that laboratory facilities: Fostered student/faculty interaction	48	5.50	1.25	38	5.00	1.23	0.50	↑	5.67	-0.17 ↓	5.40	0.10 ↑	5.62	-0.12 ↓	5.08	0.42 ↑

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Factor 15: Overall Program Effectiveness																
Q83. The Bottom Line - Overall Satisfaction - Extent that the Undergraduate Engineering program experience fulfill expectations	48	5.25	1.33	37	5.00	1.37	0.25	↑	4.92	0.33 ↑	5.22	0.03	5.24	0.01	5.04	0.21 ↑
Q84. Comparing the expense to the quality of education, rate the value of the investment made in Undergraduate Engineering program	48	5.56	1.44	38	5.08	1.36	0.48	↑	5.27	0.29 ↑	5.38	0.18 ↑	5.51	0.05	5.27	0.29 ↑
Q85. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering Major to a close friend	48	5.21	1.74	38	4.89	1.83	0.32	↑	4.41	0.80 ↑	5.02	0.19 ↑	5.04	0.17 ↑	4.63	0.58 ↑
Q86. How inclined are you to recommend your: How inclined are you to recommend your Undergraduate Engineering School to a close friend	48	5.79	1.27	38	5.34	1.58	0.45	↑	5.80	-0.01	5.66	0.13 ↑	5.91	-0.12 ↓	5.75	0.04

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NOTE: These question(s) below do not comprise a study factor																
Q16. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Calculus	44	4.86	1.52	35	5.09	1.56	-0.23	↓	5.05	-0.19 ↓	5.19	-0.33 ↓	4.55	0.31 ↑	5.09	-0.23 ↓
Q17. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Differential Equations	47	4.38	1.76	38	4.53	1.54	-0.15	↓	4.94	-0.56 ↓	4.72	-0.34 ↓	4.20	0.18 ↑	4.50	-0.12 ↓
Q18. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Physics	45	4.00	1.72	34	4.12	1.85	-0.12	↓	4.47	-0.47 ↓	3.79	0.21 ↑	4.10	-0.10 ↓	3.31	0.69 ↑
Q19. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Chemistry	47	5.72	1.14	38	5.50	1.13	0.22	↑	5.75	-0.03	5.69	0.03	5.52	0.20 ↑	5.86	-0.14 ↓
Q32. Satisfaction with: Quality of Engineering classrooms	47	4.94	1.22	38	5.26	1.29	-0.32	↓	4.86	0.08	5.22	-0.28 ↓	4.64	0.30 ↑	4.96	-0.02
Q34. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by faculty	47	4.30	1.94	38	4.58	1.95	-0.28	↓	4.52	-0.22 ↓	4.52	-0.22 ↓	4.47	-0.17 ↓	4.14	0.16 ↑
Q35. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by non-faculty	27	4.81	1.24	26	5.12	1.28	-0.31	↓	4.60	0.21 ↑	4.72	0.09	5.16	-0.35 ↓	5.41	-0.60 ↓
Q60. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Recognize need to engage in lifelong learning	48	5.67	1.46	37	5.73	1.17	-0.06		5.70	-0.03	5.78	-0.11 ↓	5.66	0.01	5.73	-0.06
Q82. Course Comparison - Quality of teaching in your Engineering courses compare to the quality of teaching in Non-Engineering courses on this campus	48	5.42	1.23	38	5.47	1.31	-0.05		5.08	0.34 ↑	5.16	0.26 ↑	5.47	-0.05	5.29	0.13 ↑

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