WICHITA STATE UNIVERSITY

Program Review Self-Study Template

Academic unit: Bioengineering

College: Engineering - Interdisciplinary

Date of last review

Date of last accreditation report (if relevant)

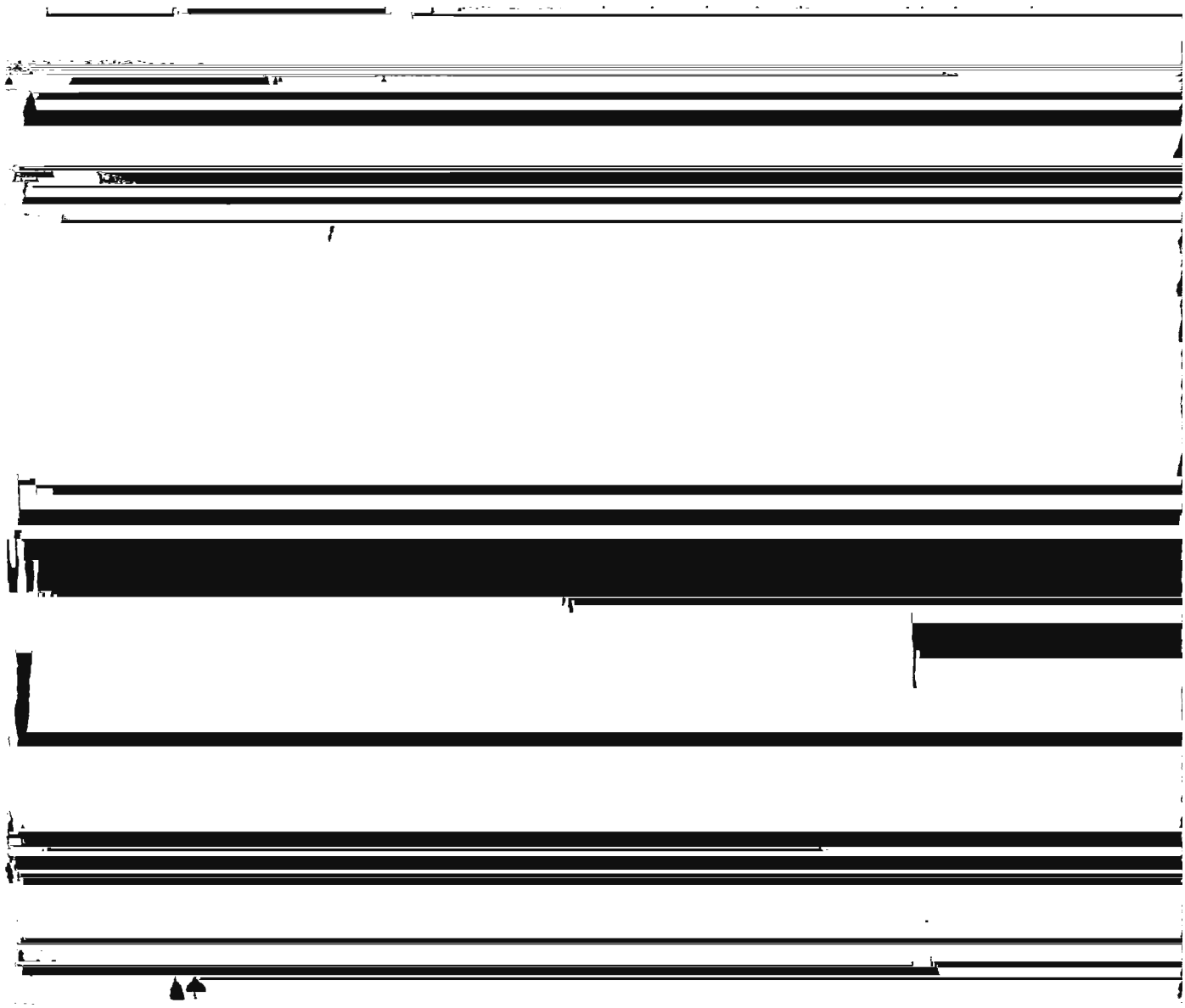
List all degrees described in this report (add lines as necessary)

Degree: CIP code: 2

*To look up, go to: Classification of Instructional Programs Website, http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55

1. **Departmental purpose and relationship to the University mission (refer to instructions in the WSU Program Review document for more information on completing this section).**

   a. University Mission



setting. Through teaching, scholarship and public service the University seeks to equip both students and the larger community with the educational and cultural tools they need to thrive in a complex world, and

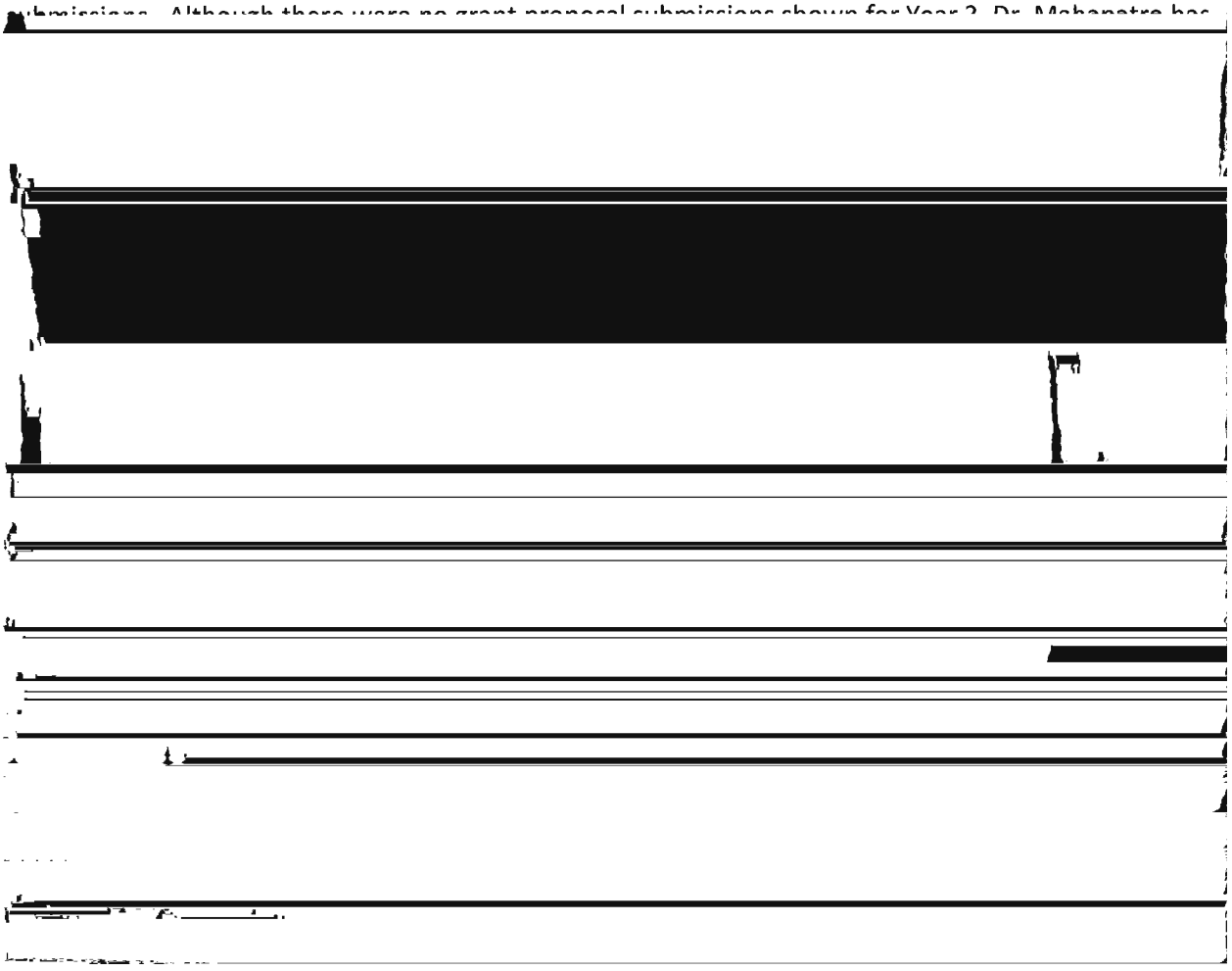
curriculum, graduates will have the ability to solve problems and design solutions that link engineering with physical and biological sciences, and pursue professional opportunities related to this ability. Thus, the Bioengineering program has three program educational objectives. Graduates of the WSU

2. Describe the quality of the program as assessed by the strengths, productivity, and qualifications of the faculty in terms of SCH, majors, graduates and scholarly productivity (refer to instructions in the WSU Program Review document for more information on completing this section). Complete a separate table for each program if appropriate.

UG Program - BS (No FTE/SCH assigned to program)

Last 3 Years	Tenure/Tenure	Tenure/Tenure	Instructional FTE (#):			Total	Total	Total
	N/A	N/A	N/A	N/A	N/A	N/A		
	N/A	N/A	N/A	N/A	N/A	N/A	19	
	N/A	N/A	N/A	N/A	N/A	N/A	36	
					N/A	N/A	N/A	N/A
					N/A	N/A	N/A	N/A
					N/A	N/A	N/A	N/A
	5	8	2			2	3	720,000
	4		3					
		1						

peer-reviewed journal articles and conference papers and abstracts, as well as grant proposal submissions. Although there were no grant proposal submissions shown for Year 2, Dr. Mahapatra has



3. Academic Program: Analyze the quality of the program as assessed by its curriculum and impact on students.

Complete this section for each program (if more than one). Attach updated program assessment plan (s) as an

			22.66
	19	29.5	22.72
	36	26.6	22.81

N/A

appendix (refer to instructions in the WSU Program Review document for more information).

a For undergraduate programs, compare ACT scores of the majors with the University as a whole

Last 3 Years	Total Majors - From fall semester	ACT – Fall Semester (mean for those reporting)	
		Majors	All University Students - FT
Year 1→			
Year 2→			
Year 3→			

KBOR data minima for UG programs: ACT≤20 will trigger program

b For graduate programs, compare graduate GPAs of the majors with University graduate GPAs *

Learning Outcomes (most programs will have multiple outcomes)	Assessment Tool (e.g., portfolios, rubrics, exams)	Target/Criteria (desired program level achievement)	Results	Analysis
Please see the table below for Learning Outcomes for Bioengineering Program	Assessment tools will consist of certain exam and quiz questions, student surveys, rubrics for presentations, project reports and teamwork.	For each learning outcome, we have targeted a mean score of 70% on any evaluation method as the minimum level to indicate achievement of the learning outcome.	See below	See below

The Bioengineering program has learning outcomes for all Bioengineering courses that have been developed to date

Prog. Its: At this time, only BioE 462 Intro to Biofluids has been assessed for learning outcomes. Other courses will be

76.1%

evaluated for the first time during the Spring 2013 and Fall 2013 semesters (i.e., BioE 452 Biomechanics, BioE 477 Intro

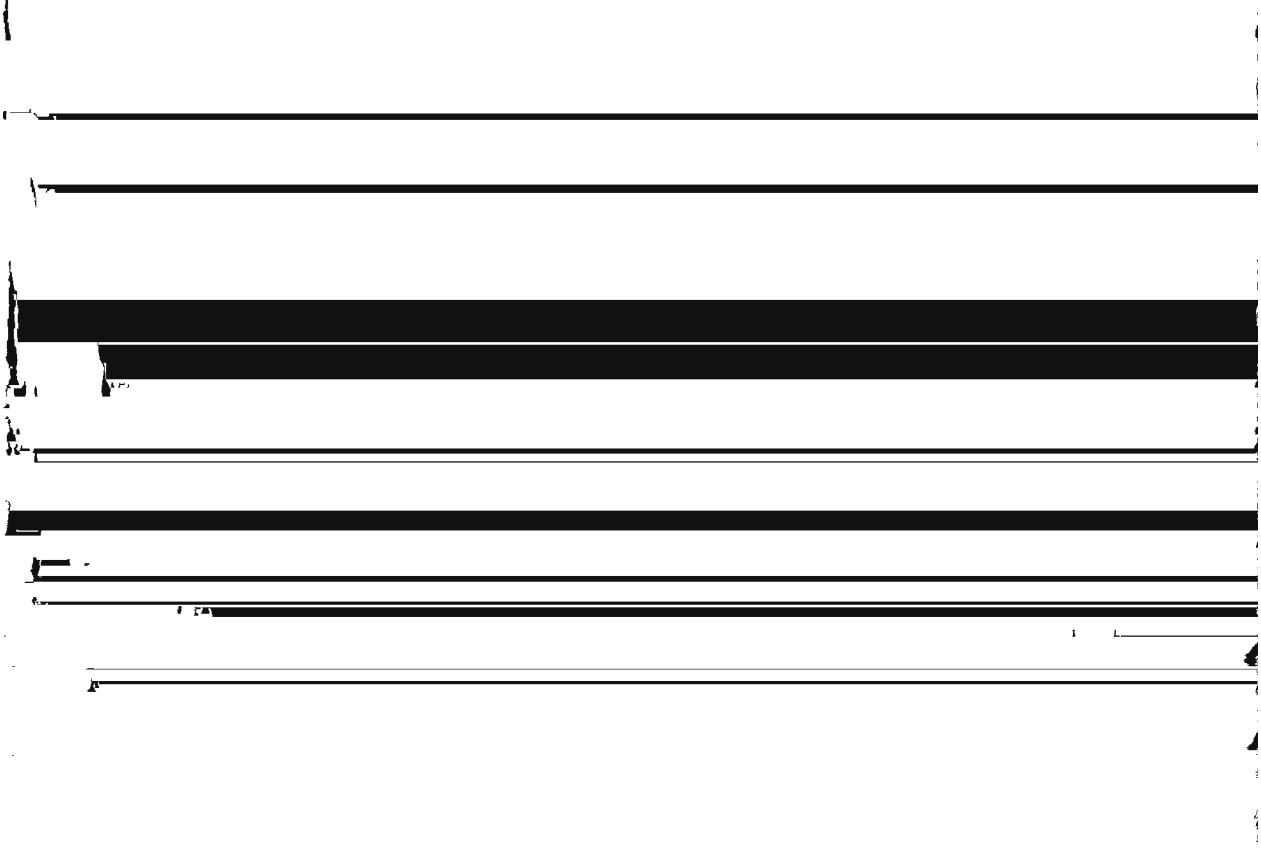
65.1%

d. Provide aggregate data on student majors satisfaction (e.g., exit surveys), capstone results, licensing or certification examination results, employer surveys or other such data that indicate student satisfaction with the program and whether students are learning the curriculum (for learner outcomes, data should

Year	N	Year	N	Name of Exam	Program Result	National Comparison±
1						
		2				
		3				

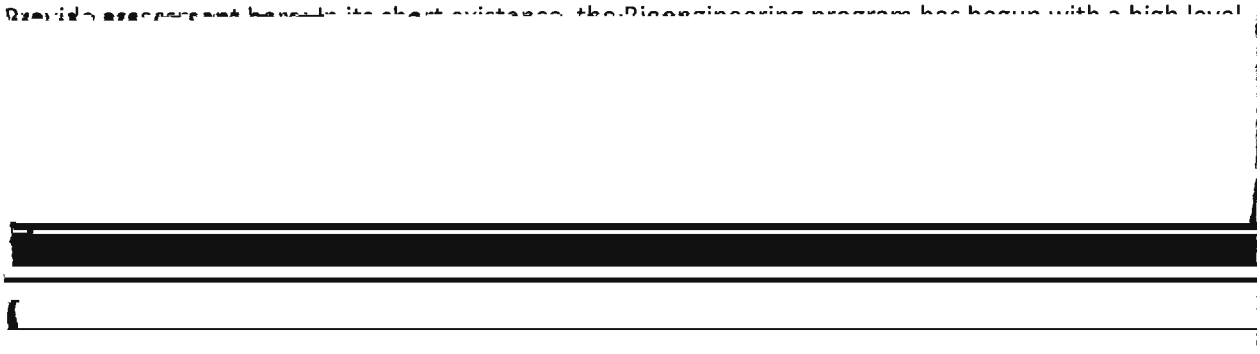
relate to the goals and objectives of the program as listed in 1e).

scholarship, inductions into honor organizations, publications, special awards, academic scholarships



student recruitment and retention).

Provide assessment here: In its short existence, the Bioengineering program has begun with a high level



[redacted]

0 0 0 1 0 0 3 0 0

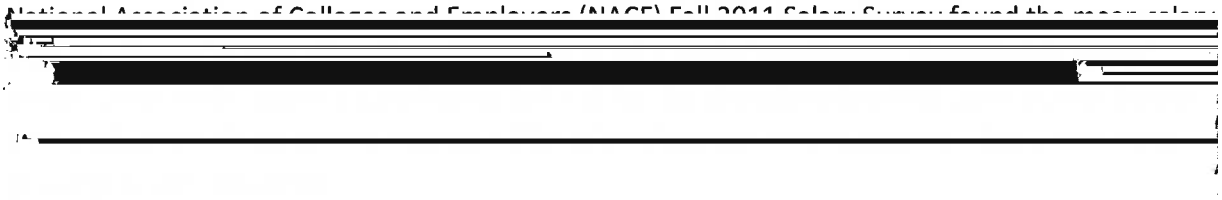
1 5 1 0 9 0

[redacted] http://www.bls.gov/oco/

** Go to the U.S. Bureau of Labor Statistics Website: and view job outlook data and salary information (if the Program has information available from professional associations or alumni surveys, enter that data)

[redacted]

who obtained a job after graduation, graduates found employment in the bioengineering industry, hospitals, academia, consulting, and government. Of those who pursued further education, 50% pursued further education in an engineering discipline whereas 31% pursued further education in medicine. Once again, since the program has not realized graduates yet, average salary data are not available for the students from the Bioengineering program. However, recent data reported by the



N/A

[redacted]

(For Last 3 FYs) Assessment Data Analyzed

N/A N/A N/A

[redacted]

the different concentrations. Additional faculty are also needed to reduce the advising load on the

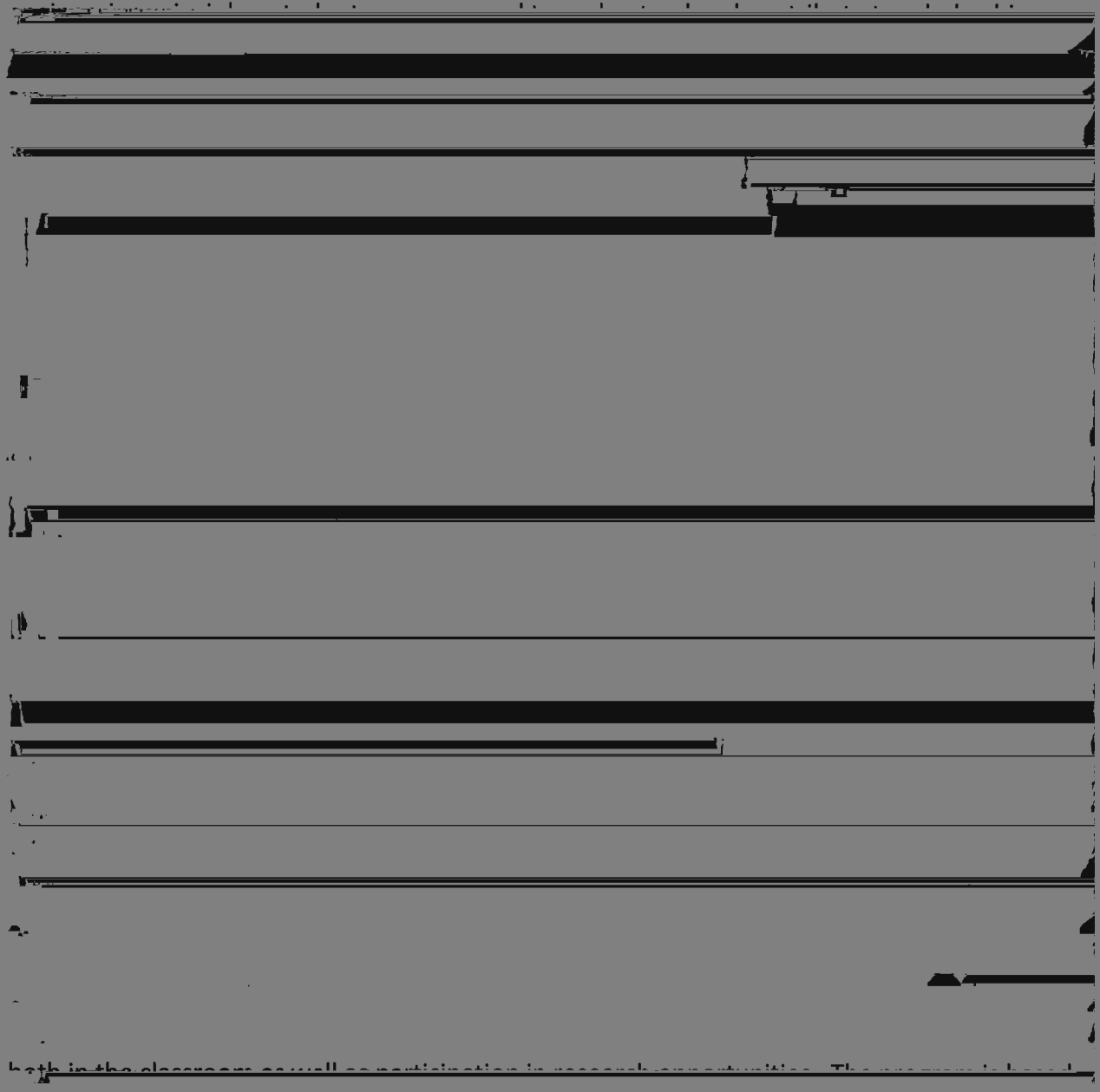
College: Engineering

Department/Program (s): Bioengineering

Degree (s) Offered: BS

Triggers: Majors (14.33)

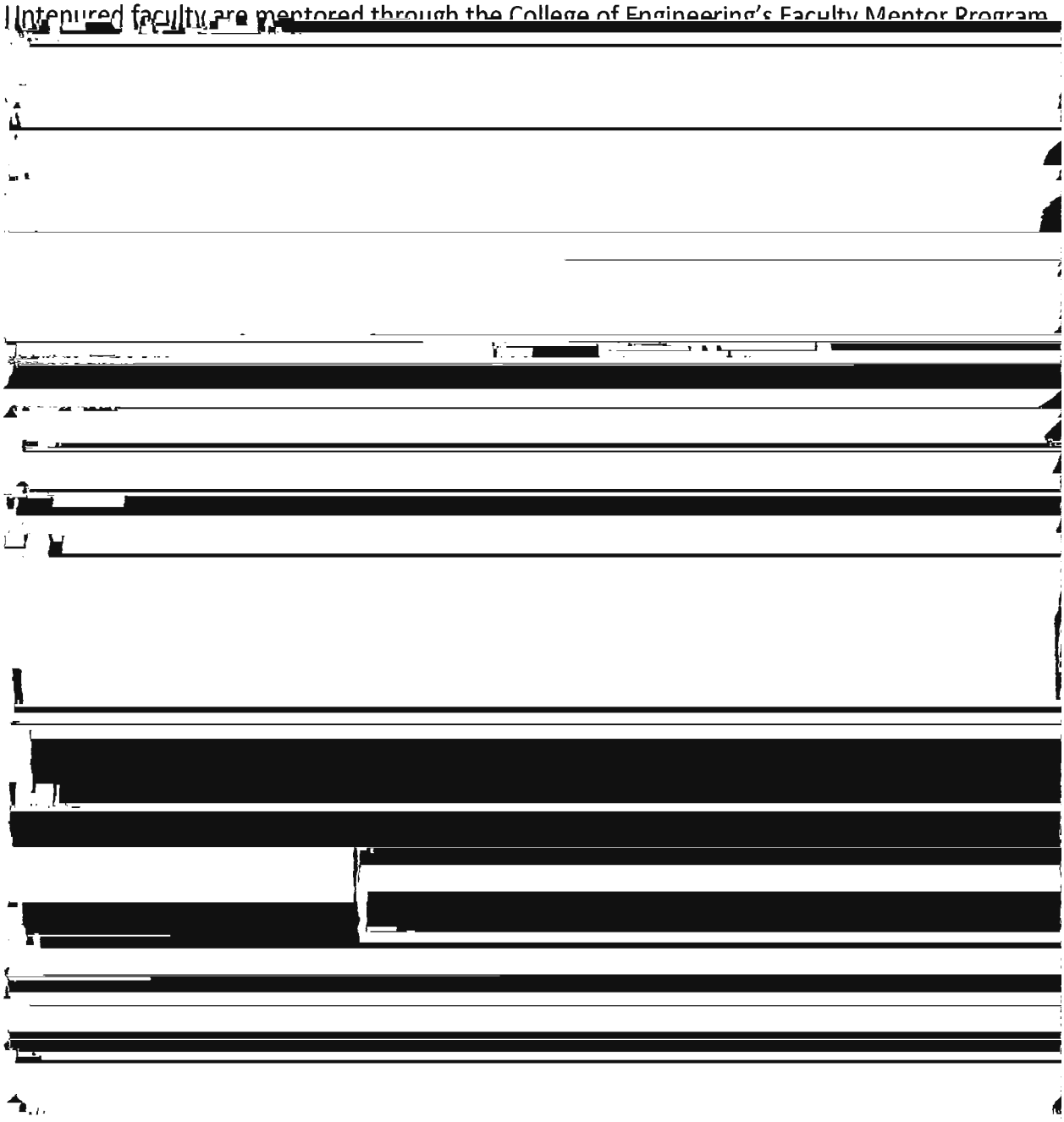
Brief Description of Each Degree:
The Bioengineering program prepares graduates for graduate study or employment related to societal health needs requiring interdisciplinary solutions. Through integration of science and



Faculty Resources:

The dean has allocated Bioengineering faculty research laboratory and teaching space.

Untenured faculty are mentored through the College of Engineering's Faculty Mentor Program



College: Engineering

Department/Program (s): Bioengineering

Degree (s) Offered: BS

Triggers: Majors (14.33) – New program

Brief Description of Each Degree:
The Bioengineering program prepares graduates for graduate study or employment related to [redacted]

engineering principles, students are prepared to understand and contribute to scholarship, [redacted]

Faculty Resources:

The dean has allocated Bioengineering faculty research laboratory and teaching space.

Untenured faculty are mentored through the College of Engineering's Faculty Mentor Program

[redacted]

Recommendati

[redacted]

- Targets: Expectations of students to achieve the desired outcome to demonstrate program effectiveness (e.g., 90% of students will demonstrate at least the benchmark performance on a project).
- Results: Actual achievement on each measurement (e.g., 94% of the students achieved at least the benchmark performance on the project).
- Analysis: An evaluation that determines the extent to which learning outcomes are being achieved and leads to decisions and actions to improve the program. The analysis and evaluation should align with specific learning outcomes and consider whether the measurement and target remain valid indicators of the learner.

Prior to the next review in 2015: