PART I

1. How does your unit support the mission of the university? This may include your mission and vision statements. (no more than 200 words)

MISSION: (from 2008-09 Self Study)
Provide and administer programs leading to Bachelor of Science degrees in Mathematics and Mathematics Teaching; Provide and administer programs leading to the Master of Science degree in Mathematics and the Master of Arts degree in Mathematics Teaching; Serve other departments and programs at IPFW through the creation and teaching of mathematics and statistics courses designed to meet the needs of their students; Teach and support developmental mathematics courses created to meet the needs of mathematically underprepared students at IPFW.
Conduct research and perform scholarly activity in the areas of mathematics, statistics, mathematics education, and mathematical pedagogy; disseminate the results of this research to the academic community; provide expertise in these areas to the academic and regional communities; and render service to the profession.

GOALS: (from 2008-09 Self Study)
The primary goal of the department in addressing its mission is to achieve excellence in all areas. This includes the development of high quality curricula, incorporating appropriate uses of technology, and the conduct of scholarly work at a level deserving of national and international recognition.
A high-priority goal is to teach students mathematical reasoning, so that they can apply mathematics to various types of problems. Because students can be expected to remember only a small portion of the technical things from their courses, they must be taught how to learn mathematics.
The development of mathematical maturity in all students majoring in the mathematical sciences is a goal of the department. Students should gain the ability to read and learn mathematics, to undertake intellectually challenging tasks, and to communicate results effectively.
For students majoring in technical areas other than mathematics, the goal is to develop both the methods of mathematics and mathematical reasoning to a level where the students find mathematics to be a useful tool in solving the problems of their disciplines, and not a hindrance to their progress.

2. Please list (a bulleted list is fine) significant accomplishments from the last three years as they align with Plan 2020 goals:
   I. Foster Student Success
      - Creation and staffing of the Math MALL;
      - Actuarial Science option classified as undergraduate-introductory by the Society of Actuaries (Spring 2014). It is the only program in NE Indiana to achieve such a classification.
      - Established connections with Swiss Re, Lincoln Group, and Medical Protective (all have agreed to be on the Actuarial Program Advisory Board);
      - Partnership with Swiss Re resulted in the creation of the actuarial Award, with five awardees just last academic year.
• Several of the 2014 graduates, Linh Nguyen (Metlife – NY, Cigna – Hartford, CT, Brotherhood Mutual, FW), Jessica Sproat (Lincoln Group, Fort Wayne, IN), and Amber Shank (Huntington North High School, Carroll High School) had job offers prior to graduation.
• 100% of Mathematics Teaching graduates in last three years offered teaching positions, accepted into graduate school, or hired into industry.
• Since Fall 2012 student advising is done by all tenured and tenure-track faculty;

II. **Promote the Creation, Integration, and Application of Knowledge**

• 2 books, 26 refereed publications, and 62 presentations;
• Three International Agreements with Institute of Mathematics at the Ukrainian Academy of Science, Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences and the Zhejiang Normal University in China;
• Prof. Natalia Zorii from the Ukrainian Academy and Prof. Peter Boyvalenkov from the Bulgarian Academy visited IPFW in May 2014 as Visiting Scholars; Prof. Yifei Pan visited Zhejiang Normal University in January 2014 and Prof. Peter Dragnev visited the Bulgarian Academy of Sciences in June 2014;
• Prof. Yang Liu (supported by the Chinese side) is in residence at IPFW during the 2014-2015 a as a visiting researcher collaborating with Prof. Yifei Pan.
• Three regional conferences were hosted as a recognition of the Department’s 50th Anniversary: MAA Indiana Section in April 2014, Midwest Workshop in Asymptotic Analysis in September 2014, and the Midwest Graph Theory Conference (MIGHTY LVII) in October 2014;
• Every spring, to promote undergraduate research, the Department holds a well-established Pi Mu Epsilon research competition.

III. **Serve as a Regional Intellectual, Cultural, and Economic Hub for Global Competitiveness**

• As a result of the 2008-2009 self-study in July 2013, to serve better and engage more fully with the local economy, the department launched the Center for Applied Mathematics and Statistics. The Center was one of the first two in the Purdue System to negotiate and successfully complete an Applied Research Project with a globally positioned local company. It also negotiated and delivered a Statistics training to the Planning Department of the Allen County administration and is in the process of negotiating with a construction company in Fort Wayne and a trailer manufacturer in Columbia City.
• The Department is the largest single provider of concurrent enrollment math classes in NE Indiana. As such, it prides itself in maintaining the highest level of program oversight and faculty professional development.
• Sponsored Mathcounts, one of the Department’s signature engagement projects, for the kth consecutive year. Mathcounts, gathers middle school students for a day of friendly competition and appreciation of mathematics. Departmental faculty participate in a preparation session (usually two-three weeks earlier). The last two years the proctoring and grading have been done in partnership with Raytheon.

IV. **Create a Stronger University through Improving the Support of Stakeholders and the Quality and Efficiency of the Organization**

N/A
3. Please list any other significant accomplishments from the last three years not listed in question 2 (a bulleted list is fine):

   N/A

4. What program-specific accreditations and status do you have, if any?
   a. How do these constrain or benefit the work of your unit?

   N/A

5. What federal and/or state laws or mandates do you address, if any?
   a. How do these constrain or benefit the work of your unit?

   N/A

6. On what activities, if any, do you spend resources (money, time, people, etc.) inefficiently or in ways that do not support the mission of your unit or the university? List as many as apply.

   N/A

7. Upon review of your IR Department Profile (for academic units) and FY 14-15 Budget information, are there any data you want to correct or contextualize? To view your profile or budget visit the Office of Institutional Effectiveness website: http://www.ipfw.edu/offices/ir/profiles/

   N/A
**PART 2**

**Instructions:** Please complete this form for each unit goal.

(Note: Each unit that is directly responsible for student learning (whether the unit is academic or academic support) should include at least ONE unit goal (among its other goals) that aligns with EITHER Goal I.A.1 or I.A.2.

<table>
<thead>
<tr>
<th>Enter a unit goal</th>
<th>#1 - Increase number of baccalaureate degrees granted in actuarial sciences, statistics, and business options.</th>
</tr>
</thead>
<tbody>
<tr>
<td>What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may leave this blank or clarify.</td>
<td>I.O.1b 1,600 baccalaureate degrees awarded annually</td>
</tr>
<tr>
<td>Is the unit goal high, medium or low priority? Limit your high priority unit goals to 3-5.</td>
<td>N/A</td>
</tr>
<tr>
<td>What action(s) does your unit plan to take to support this unit goal?</td>
<td>Have Actuarial Science Program classified as “undergraduate-advanced” by the Society of Actuaries.</td>
</tr>
<tr>
<td>With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?</td>
<td>Number of majors and degrees awarded increase by 35% over three years, 60% over five. There are currently 45 students majoring in the three options, up from 19 in 2006-2007. Three-year goal of 61, five-year goal of 70.</td>
</tr>
<tr>
<td>Are you able to accomplish this unit goal with your current resources?</td>
<td>N/A</td>
</tr>
<tr>
<td>If no, what additional resources do you need to accomplish this unit goal?</td>
<td>Actuary in residence expanded from quarter time position to full time Continuing Lecturer; tenure track hire in Statistics.</td>
</tr>
<tr>
<td>What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?</td>
<td>The Department needs to develop three to five professional actuarial education courses.</td>
</tr>
<tr>
<td>If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?</td>
<td>Three to five years.</td>
</tr>
<tr>
<td>Enter a unit goal.</td>
<td>#2 - Increase student engagement with faculty and tutors in the MATH Mall.</td>
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<td>--------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may leave this blank or clarify.</td>
<td><strong>I.O.1a</strong> 30% graduation rate in 6 years</td>
</tr>
<tr>
<td>Is the unit goal high, medium or low priority? Limit your high priority unit goals to 3-5.</td>
<td>N/A</td>
</tr>
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<td>What action(s) does your unit plan to take to support this unit goal?</td>
<td>Increase student engagement with faculty and tutors in the MATH Mall.</td>
</tr>
<tr>
<td>With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?</td>
<td>Track number of visits; continue to measure and track changes in DFW rate. Increase success rates in MA 15300, MA 15400, MA 16500, MA 16600, and MA 22900 by 10%.</td>
</tr>
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<td>Are you able to accomplish this unit goal with your current resources?</td>
<td>N/A</td>
</tr>
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