**YEAR 2**

**ACADEMIC YEAR 2013-14**

Program Review and Planning Year 2 form is an evaluation of the progress on last year’s goals (Year 1 PRP) and is also planning of goals and activities for the current year (2013-2014).

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| **Discipline: Wastewater Treatment and Water Technology Programs** | **Date 01/30/2014**  |
| **Instructional Discipline Reviewed (Each discipline is required to complete a Program Review.)** | **Add Date (00/00/2014)** |

**Purpose of Program Review and Planning:**

The institution assesses progress toward achieving stated goals and makes decisions regarding the improvement of institutional effectiveness in an on-going and systematic cycle of evaluation, integrated planning, resource allocation, implementation, and re-evaluation. Evaluation is based on analyses of both quantitative and qualitative data (ACCJC/WASC, Standard I, B.3.).

**DEFINITION**

Program Review and Planning is the means by which faculty, staff, and/or administrators complete a self-evaluation of an academic discipline, program, or service.  The self-evaluation includes an analysis of both quantitative and qualitative data on how the academic discipline, program, or service is supporting the mission and strategic planning of Palomar College in meeting the educational and career interests of students.  Through the review of and reflection on key program elements, such as program data and student learning outcomes, Program Review and Planning defines the curriculum changes, staffing levels, activities, and/or strategies necessary to continue to improve the academic discipline, program, or service in support of student success.  The Program Review and Planning process also ensures short-term and long-term planning and identification of the resources necessary to implement identified goals and priorities.

[**Palomar College Mission**](http://www.palomar.edu/about/goals.aspx)

Our mission is to provide an engaging teaching and learning environment for students of diverse origins, experiences, needs, abilities, and goals. As a comprehensive community college, we support and encourage students who are pursuing transfer-readiness, general education, basic skills, career and technical training, aesthetic and cultural enrichment, and lifelong education. We are committed to helping our students achieve the learning outcomes necessary to contribute as individuals and global citizens living responsibly, effectively, and creatively in an interdependent and ever-changing world.

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| **Program/Discipline Mission** |
| **List everyone who participated in completing this Year 2 Program Review and Planning Document.****Braden McCrory, Glenn Thorpe, Chris Castaing, Sean Askine, Eagle Jones, Ed Pedrazzi, Jack Bebee, and Mollie Smith** |
| **State your program’s or discipline’s mission statement. If you don’t have one, create one.****Provide comprehensive education to a diverse constituency for a career in the water and wastewater field that prepares students to contribute effectively in a profession responsible for protecting public health.** |
| **Explain how your program’s or discipline’s mission is aligned with the Palomar College Mission Statement.****We provide an engaging learning environment for a diverse population of students who are seeking a career in the water and wastewater industries. The teaching faculty and staff are committed to helping our students achieve the learning outcomes necessary to meet their educational goals.** |

**STEP I. Review and Evaluation of Year 1
In this section, evaluate the program plans you described in last year’s Program Review and Planning Document.
Refer to “STEP II: PLANNING” in your 2012-13 YEAR 1 PRP document at:** <http://www.palomar.edu/irp/PRPCollection.htm>.

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| 1. **Progress on Current Plans. For each planning area below, summarize your program plans as documented in the Year 1 form (last year’s form) and evaluate your progress on completing them.**

**Curriculum (Step II.A. of Year 1 PRP)**1. **Summarize the plans you made regarding curriculum? (Consider how SLO assessment results influenced curriculum planning.)**

**No changes were made in the curriculum for either the Water (WTE) or Wastewater (WWT) Technology Education Programs.** 1. **How did you implement and evaluate those curriculum changes?**

**Class Scheduling (Step II.B. of Year 1 PRP)**1. **Summarize the plans you made regarding class scheduling?**

**There were no scheduling changes. The WTE program has five discipline specific courses, the WWT program has three industry specific courses, and the two programs share six courses. Nine courses are scheduled each semester. The scheduling pattern allows students to move through the program in less than two years.** 1. **How did you implement and evaluate those class scheduling changes?**

**Faculty Hiring (Step II.C. of Year 1 PRP)**1. **What faculty needs did you articulate for this discipline?**

**The WWT and WTE courses are taught exclusively by part-time facutly.**1. **What is the current status of the plan you articulated?**

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| 1. **Analysis and Impact of Resources Received (Step III – Year 1 – Resource Requests for Discipline)**
2. **What is the dollar amount you received from IPC last year (2012-2013)? You can access the 2012-13 IPC PRP allocations by clicking on this link:** <http://www.palomar.edu/irp/201213resourceallocations.pdf>

**N/A**1. **How were those funds spent?**

1. **Identify permanent employees requested and prioritized by IPC, i.e., classified/CAST/administrative. You can access this information by clicking on this link:** <http://www.palomar.edu/irp/staffingplan.pdf>

1. **Describe the impact of these funds received from IPC on:**
2. **Curriculum (courses, SLOs)**

1. **Number of students affected**

1. **Other**

1. **Describe unmet funding requests as they apply to your planning and priorities.**

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**STEP II. Evaluation of Program & SLOAC Data**

**In this section, review and analyze updated program data, the results of SLOACs, and other factors that could influence your program plans for this upcoming year.**

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| 1. **Program Data. Provide an analysis of the past six years (2007-08 through 2012-13) of your discipline’s data. Consider trends in the data and what may be causing them. (For enrollment, WSCH, & FTEF data, use Fall term data only). The links below will take you to the three sets of data to analyze.**
	* Enrollment, Enrollment Load, WSCH, and FTEF (<http://www.palomar.edu/irp/PRP_WSCH_FTEF_Load.xlsx>) **(Use Fall term data only).**
	* Course Success and Retention rates (<http://www.palomar.edu/irp/PRP_Success_Retention.xlsx>**). Note, this file is very large and there will be a delay both when you open the file and again when you initiate the first search.**
	* Degrees and Certificates (<http://www.palomar.edu/irp/PRP_Degrees_Certs.xlsx>).

**Describe your analysis and observations.****Enrollment dipped slightly in the WWT program in 2012-13 and about 15% in the WTE program for the same year. The belief is that cutbacks during the recession limited hiring and as a consequence discouraged students from pursuing further study or beginning a program of study in WWT or WTE.** **WSCH/FTEF for both programs is significantly higher than average, typically ranging from 700 to 900.** **Retention rates are in the 90's for both programs and pass rates characteristically range in the 80's.****Certificate of Achievement and AA degree awards remain high with an average of 35 per year for the six year period.** **Does this data reflect your planning, goals, and activities? If not, why?****Preparation for WWT and WTE careers are popular programs of study. All program indicators reflect healthy programs.**  |
| 1. **SLOACs. Using the comprehensive SLOAC reports and faculty discussions as a guide, provide a summary and analysis of Student Learning Outcome assessments at the course and program level. Link to SLOAC resources:** <http://www2.palomar.edu/pages/sloresources/programreview/>
2. **Summarize your SLOAC activities during the 2012-2013 academic year.**

**SLO's have been consistently assessed and entered into TracDat. Results indicate students are demonstrating the learning outcomes set by faculty and are achieving or exceeding the critera set by facutly.** **Faculty have been learning about ILO's and re-evaluating their course mapping choices.** 1. **Course SLOACs: What did you learn from your course SLO assessments? What will you maintain and/or change because of the assessment results?**

**Feedback from faculty indicated ongoing modifications to the SLO's assessment process. The following are feedback from faculty and provide examples of changes to course SLO processes.****1. I decided the assessment method, a research paper, was inappropriate for the level of class. Students were so stressed over the type of assessment that they seemed to miss out on the real intent of the exercise. Additionally, the SLO was too global to determine competency and was rewritten into two smaller SLO assessments.****2. My SLO assessment allowed me to determine if sufficient time was being spent on the key focus points of the class. Backflow tester SLO's were very clear and easy to determine how well the material was understood. Cross Connection SLO's were more difficult to judge since some students did not complete the projects. The SLO's will be changed to reflect a more global overview of the material instead of pinpointing two specific items.** **3. I decided to embed the SLO's into the final as an incentive to complete the assignment. The previous instructor explained that the students would not complete the SLO's given as a homework assignments. I will integrate questions into the final, and additionally give them a skills exercise they can tranfer into a workplace application.** **4. Results of the assesment indicated the need for additional time instruction and practice of water math applications. I will continue to maintain the level of instruction in water treatment applications focusing on process control lessons.** **5. I am continually rewiewing, adjusting, and seeking new or better ways to project or explain course materials to enable the student to understand the material.** **6. By setting the specific SLO’s for the class it helped identify that the actual percentage rate of students able to meet the objectives was lower than anticipated and lower than the overall program retention rate. I learned that I needed to adjust the percentage down slightly from 80% to 70% of students meeting the SLO's. I conduct a pre-assessment to determine which students are having difficulty with the math covered in previous courses. I impress upon underprepared student the need to make the time available to study and practice the material and problems or they will not meet the course SLO’s and may not pass the class.**1. **Program SLOACs: What did you learn from your program SLO assessments? What will you maintain and/or change because of the assessment results?**

**The WWT and WTE programs, with the exception of Treatment Plant Operations I & II and Water Distribution I & II, provides multiple entry points for students. Course SLO's represent and are mapped to program SLO's.** |
| 1. **Other Relevant Data and Information.**
2. **Describe other data and/or information that you have considered as part of the assessment of your program. (Examples of other data and factors include, but are not limited to: external accreditation requirements, State and Federal legislation, four-year institution directions, technology, equipment, budget, professional development opportunities).**

1. **Given this information, how are your current and future students impacted by your program and planning activities? Note: Analysis of data is based on both quantitative (e.g., numbers, rates, estimates, results from classroom surveys) and qualitative (e.g., advisory group minutes, observations, changes in legislation, focus groups, expert opinion) information.**

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| 1. **Labor Market Data. For Career/Technical disciplines only, provide a summary of the current labor market outlook. This data can be found on the CA Employment Development website at** [**http://www.labormarketinfo.edd.ca.gov/**](http://www.labormarketinfo.edd.ca.gov/) **. Go here and search on Labor Market Information for Educators and Trainers (http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=112). Click on summary data profile on right side of page to search by occupation. (Check other reliable industry or government sources on Labor Market Data websites that support findings and are relevant to Region Ten – San Diego/Imperial Counties. Include job projections and trends that may influence major curriculum revisions.)**

**LMI data shows 13% growth for water and liquid wastewater treatment plant workers through 2020. Median salary for San Diego County is $64K annually.**  |
| 1. **Discipline/Program Assessment:** **Based on Steps I and II above, describe your discipline’s or program’s:**
2. **Strengths**

**The WWT and WTE programs have been at the College since the 1970's and have enjoyed and continue to receive strong support from the local water agencies.** **In Fall 2014 the WWT.WTE programs started scheduling classes in the new dedicated water/wastewater laboratory in the T-Building. The indoor and outdoor laboratories will allow students to engage in hands on activities in connection with the competency based curriculum.** **Faculty will be able to evaluate SLO's using competency based assessments in the laboratories.** 1. **Weaknesses**

**The WWT and WTE enrollments are approximately 600 per year and the two programs award adequate certificates and AA degrees to fill the labor market pool. The advisory committee believes that the two programs are producing an adequate applicant pool, but wonder if the quality of the applicants is sufficient. Based on completion rates, students are receiving the technical skills they need to complete, but do they possess the soft skills required to be a good employee?** 1. **Opportunities**

**Provide professional development to faculty to enable them teach students the non-technical skills they will need to succeed in the job market and sustain employment in a San Diego Water agency.** 1. **Challenges**

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**STEP III. Updated Goals & Plans**

**Taking the analyses you completed in Steps I and II, describe your program’s goals and plans.**

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| 1. **Goals and Plans: What are your goals for 2013-14? When establishing goals, consider changes you are making to curriculum, schedule, and staffing as a result of the assessments you completed in STEPS I and II above. Goals should reflect your program/discipline’s top priorities for the coming academic year.**

**For EACH goal provide the following:** |
| **GOAL #1** |
| **Program or discipline goal** | **Evaluate the mapping of course SLO's to GE/ILO's** |
| **Plans/Strategies for implementation** | **Faculty will revisit their original mapping choices to determine if they would participate in a campus evaluation of GE/ILO's.**  |
| **Outcome(s) expected (qualitative/quantitative)** | **All faculty will have mapped their course SLO's to the GE/ILO's.** |
| **GOAL #2** |
| **Program or discipline goal** | **Purchase supplies and equipment for the new T-114 indoor and outdoor laboratories.** |
| **Plans/Strategies for implementation** | **Use funding from department budget, Foundation account, and request funding through PRP process to purchase supplies and equipment.** |
| **Outcome(s) expected (qualitative/quantitative)** | **The lab will be fully equipped by the beginning of Fall 2015 classes.** |
| **GOAL #3** |
| **Program or discipline goal** | **Curriculum: Research recycled water for implementation into the curriculum.** |
| **Plans/Strategies for implementation** | **A faculty member is going to research the topic and report back to the advisory committee.** |
| **Outcome(s) expected (qualitative/quantitative)** | **The fall 2014 advisory committee will decide what, how, and when to integrate recycle water into the curriculum.** |
| **ADDITIONAL GOAL (*if needed*)** |
| **Program or discipline goal** | **Curriculum: Research laboratory safety standards.** |
| **Plans/Strategies for implementation** | **A lead facutly member is going to convene a group of faculty to prepare standards for the laboratories and produce a document to give to students.**  |
| **Outcome(s) expected (qualitative/quantitative)** | **Faculty will produce a document detailing standard laboratory standards. The document will become a document of record for the laboratory and will be disseminated to the students each semester in conjunction with the course syllabus.**  |

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| 1. **Alignment with College Mission and Strategic Plan Goals.**
2. **How do your goals align with the Palomar College Mission?**

**The WWT and WTE programs strive to provide engaging learning environments for our students. Outfitting the laboratory and keeping the curriculum current will enable students to complete their program of study by practicing their skills using the latest technologies.**1. **How do your goals align with the College’s Strategic Plan Goals? See the College’s Strategic Plan 2016 Goals at:** <http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf>

**The WWT and WTE program goals are aligned with Goal 1 of the Strategic Plan. We are focused on improving student progress, learning, and achievement of goals.** 1. **Based on your program review and planning, describe any issues/concerns that have emerged that require interdisciplinary or College-wide dialogue and/or planning.**

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| **STEP IV. Resources Requested for Academic Year 2013-2014:**  |
| **Now that you have completed Steps I – III, Step IV requires you to identify all additional resources you will need to achieve your Goals and Plans/ Strategies (Step III). First, identify all resource needs in each budget category.  You may have up to five (5) requests per budget category.  Provide a meaningful rationale for each request and how it links to your Goals, Plans, and Strategies.  \*Second, ALL your resource requests must be prioritized as one group; not prioritized within each budget category.  This means, you could have your #1 priority in Technology, your #2 priority in Short-term Hourly, and your #3 priority in Equipment, etc.  If you actually have five (5) requests in each of the five (5) budget categories, you would end up with 25 prioritized requests. IPC will not consider any requests that are not prioritized.Resource requests to simply replace budget cuts from previous years will not be considered.  PLEASE NOTE THAT ALL FUNDING ALLOCATED BY IPC IS ONE-TIME AND MUST BE SPENT WITHIN THE DEFINED TIMELINE. RESOURCE REQUESTS THAT SUPPORT MORE THAN ONE DISCIPLINE SHOULD BE INCLUDED ON THE ‘ACADEMIC DEPARTMENT RESOURCE REQUESTS” PRP FORM ONLY.** |

**Budget category a. Equipment (600010) (per unit cost is >$500). *Enter requests on lines below. Click here for examples of equipment:*** [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf)

| **Resource Category** | **Describe** **Resource** **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.****(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
| --- | --- | --- | --- | --- | --- | --- |
| **a1.**  |  |  |  |  |  |  |
| **a2.**  |  |  |  |  |  |  |
| **a3.**  |  |  |  |  |  |  |
| **a4.**  |  |  |  |  |  |  |
| **a5.**  |  |  |  |  |  |  |

| **Budget category b. Technology (600010) (computers, data projectors, document readers, etc.). Enter requests on lines below. *Click here for examples of technology:*** [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf) |
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| **Resource Category** | **Describe** **Resource** **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.****(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
| **b1.**  |  |  |  |  |  |  |
| **b2.**  |  |  |  |  |  |  |
| **b3.**  |  |  |  |  |  |  |
| **b4.**  |  |  |  |  |  |  |
| **b5.**  |  |  |  |  |  |  |

| **Budget Category c. Funds for Supplies (400010) (per unit cost is <$500 supplies) *Enter requests on lines below. Click here for examples of Supplies:***  [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](%20http%3A//www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf) |
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| **Resource Category** | **Describe** **Resource** **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.****(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
| **c1.**  | **Supplies to outfit the indoor and outdoor water and wastewater laboratories in T-114.** | **#2** | **#1** | **1** | **We are seeking funding to outfit the new water and wastewater laboratories in T-114. The total cost of purchases is $74,277 which includes three areas: backflow testing equipment and assemblies, SCADA equipment and software, and laboratory supplies and equipment for the indoor water lab. We will use $2,000 from our deparment budget and take $10,000 from our Foundation account to purchase the equipment. For the SCADA equipment , software and supplies we are going to seek vendor donations and donations from area water agencies.****We are asking for funding for the backflow and indoor water lab supplies. Amount includes tax and shipping.**  | **$23,939** |
| **c2.**  |  |  |  |  |  |  |
| **c3.**  |  |  |  |  |  |  |
| **c4.**  |  |  |  |  |  |  |
| **c5.**  |  |  |  |  |  |  |

| **Budget Category d. Funds for Operating Expenses (500010) (printing, travel, maintenance agreements, software license, etc.). *Enter requests on lines below. Click here for examples of Operating Expenses:*** [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf) |
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| **Resource Category** | **Describe** **Resource** **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.****(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
| **d1.**  |  |  |  |  |  |  |
| **d2.**  |  |  |  |  |  |  |
| **d3.**  |  |  |  |  |  |  |
| **d4.**  |  |  |  |  |  |  |
| **d5.**  |  |  |  |  |  |  |

| **Budget Category e. Funds for temporary or student workers (230010/240010) Enter requests on lines below** |
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| **Resource Category** | **Describe** **Resource** **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.****(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include benefits)** |
| **e1.**  |  |  |  |  |  |  |
| **e2.**  |  |  |  |  |  |  |
| **e3.**  |  |  |  |  |  |  |
| **e4.**  |  |  |  |  |  |  |
| **e5.**  |  |  |  |  |  |  |

**STEP V. Classified and administrative (contract) positions requests for academic year 2014-2015**

**Classified, CAST, or Administrator positions:  Enter each position request on the lines below.  You may request up to five (5) positions and they must be prioritized to be considered by IPC.  Contract position requests may include vacancies due to retirements, resignations, lateral transfers, etc., as well as any new positions to be considered.  Please note that only these position requests will be prioritized by IPC when developing the annual Staffing Plan for Instruction.**

| **Resource Category** | **Describe** **Resource** **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **Priority Number for Position Requests in Step V Only** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.****(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include benefits)** |
| --- | --- | --- | --- | --- | --- | --- |
| **1.**  |  |  |  |  |  |  |
| **2.**  |  |  |  |  |  |  |
| **3.**  |  |  |  |  |  |  |
| **4.**  |  |  |  |  |  |  |
| **5.** |  |  |  |  |  |  |

 **Department Chair/Designee Signature Date**

 **Division Dean Signature Date**