UNIT REPORT Criminal Justice, Department of Forensic Science Assessment Plan Summary

# **Criminal Justice, Department of Forensic Science**

# **Enhance And Develop Academic Program Quality**

### **Goal Description:**

Enhance and develop academic program quality and scope by implementing a new doctoral degree in forensic science.

**RELATED ITEMS/ELEMENTS** 

#### **RELATED ITEM LEVEL 1**

# **Doctoral Program Implementation Performance Objective Description:**

Implement the interdisciplinary doctoral program in forensic science.

**RELATED ITEM LEVEL 2** 

# Doctoral Program Implementation

# **KPI Description:**

Effective implementation the doctoral degree in forensic science.

#### **Results Description:**

The first cohort of doctoral students in forensic science was accepted during 2015. During the first year a total of five students were accepted, all of who were internal (existing MS students). The first cohort consists of three students in the field of forensic toxicology and two in forensic DNA. Doctoral stipends of \$26,000 were provided to each student, three of which were externally funded by the National Institute of Justice.

#### **RELATED ITEM LEVEL 3**

# **Doctoral Program Implementation**

# **Action Description:**

The Department of Forensic Science was successful recruiting students into the new doctoral program and was able to successfully implement the new program, despite numerous challenges. Ongoing institutional support is critical in order for it to develop fully. The new faculty position added this academic year, and recruitment efforts of a second (next academic year) are evidence of this support. Costs associates with scientific equipment (capital outlay and repairs) and physical space within the department continue to be the most pressing issues.

# **Excellence In Teaching, Research And Service**

# **Goal Description:**

Sustained excellence in teaching, research and service at the department level.

RELATED ITEMS/ELEMENTS -----

**RELATED ITEM LEVEL 1** 

#### FES

Performance Objective Description:

All faculty will engage in research, teaching, and service.

**RELATED ITEM LEVEL 2** 

#### **Faculty Evaluation System**

# KPI Description:

Faculty are evaluated per University guidelines on research, teaching, and service. Faculty must be actively engaged in sustained efforts that demonstrate effective research (evidenced by publications and supervision of student-directed research), teaching (evidenced by student evaluation scores on IDEA that meet department expectations), and service (evidenced by documented service activities to the department, college, university, and academic community at large). 100% of faculty in the department will meet or exceed the minimum expectations in all three areas.

#### **Results Description:**

The standardized Faculty Evaluation System (FES) matrix utilized by the College of Criminal Justice showed that all faculty performed at or above the minimum expectations in terms of research, teaching and service. During this academic year, faculty received three additional awards from the National Institute of Justice in the form of Graduate Research Fellowships in STEM, which support three of the five PhD students in Forensic Science. The Department was specifically recognized for its research accomplishments with respect to external funding by the Office of Research and Sponsored Programs during Spring 2016.

In addition to faculty success related to research, faculty within the Department of Forensic Science are engaged scholars within their respective disciplines and participate on numerous advisory boards, commission and hold elected positions at the state and national level.

#### **RELATED ITEM LEVEL 3**

# **Faculty Evaluation**

# Action Description:

The department has struggled to distribute graduate student researcher more evenly among existing faculty and more importantly, encourage participation in underrepresented disciplines (e.g. trace/physical evidence).

This year an additional faculty member specializing in trace/physical evidence was added to the faculty. We anticipate this will increase our impact in these forensic disciplines, encourage growth and facilitate collaborative research between faculty members within the department. Additionally, the institution approved a new growth position, which will allow the department to recruit a second faculty member with expertise in forensic toxicology. Currently 35% of all graduates are employed in forensic toxicology (43% in DNA, 22% all other forensic disciplines), with only one faculty member. This new growth position will significantly alleviate current constraints related to supervision of toxicology research within the department.

The department plans to update the Faculty Evaluation System (FES) matrix that is currently used to place increased emphasis on the quality of the student research experience (including, but not limited to mentoring, manuscript preparation and availability/accessibility of faculty to students).

# **Forensic-Related Careers Or Advanced Graduate Studies**

# **Goal Description:**

This performance indicator is a measure of post-graduate success with respect to employment in the area of forensic science or the pursuit of research or an advanced graduate degree.

RELATED ITEMS/ELEMENTS -----

#### **RELATED ITEM LEVEL 1**

#### **Postgraduate Success**

#### **Performance Objective Description:**

Upon completion of the MS program, graduates will be employed in the area of forensic science or will pursue advanced graduate studies or research.

#### **RELATED ITEM LEVEL 2**

# Job Or Advanced Program Placement

#### **KPI Description:**

The number of MSFS graduates that are successfully employed in forensic careers or pursue advanced degrees or full time research within 12 months of graduation.

#### **Results Description:**

The employment status of Forensic Science graduates is surveyed within twelve months of graduation. In 2016, the survey of 2015 graduates indicated that 92% were successfully employed or pursuing advanced degrees. Of these, 65% pursued work in the public sector, 20% in the private sector and 15% pursued research.

#### **RELATED ITEM LEVEL 3**

# Postgraduate Success

#### **Action Description:**

Forensic Science graduates enjoy high rates of postgraduate success in terms of employment and the pursuit of advanced degrees. The extensive hands-on laboratory experience and FEPAC-accredited curriculum have been critical in terms of sustaining this high level of performance. The Department of Forensic Science must maintain current levels of laboratory instruction despite the high operational costs. Additionally, it must continue to invest in capital equipment to support instructional methods hat are relevant to accredited forensic laboratories.

During the AY 2015-2016 cycle we were in fact able to retain graduates pursuing advanced degrees at SHSU, who would have otherwise applied to doctoral programs elsewhere. A total of five students enrolled in the MS program transferred to doctoral status during the Spring 2016 semester. This represents the very first cohort of PhD students.

# **Increase Enrollment**

# **Goal Description:**

To increase enrollment via recruitment and retention of qualified and motivated students.

RELATED ITEMS/ELEMENTS -----

**RELATED ITEM LEVEL 1** 

**Increase Enrollment** 

# **Performance Objective Description:**

To increase enrollment via recruitment and retention of qualified and motivated students.

**RELATED ITEM LEVEL 2** 

# **Enrollment And Retention**

# **KPI Description:**

Enrollment numbers and retention rates of students accepted into the Master of Science in Forensic Science annually.

# **Results Description:**

During this academic year there were a total of thirty full-time students enrolled in the MS in Forensic Science, representing an increase of 7% from last year. A total of sixteen MS students graduated and fourteen new students were accepted. Retention rates were 100% during AY 15-16.

Additionally, five new students were accepted into the PhD in Forensic Science, bringing the total number of graduate students to thirty five, representing an overall increase in graduate student enrollment of 25% from last year.

### **RELATED ITEM LEVEL 3**

### **Enrollment and Retention**

### **Action Description:**

Due to the increased emphasis on forensic science reform at the national level, the number of FEPAC-accredited programs throughout the United States is growing each year. Additionally, other institutions are also developing doctoral programs in forensic science, increasing competition for high quality students. The Department must continue to offer student assistantships and scholarships support in order to remain competitive with other programs. It must also increase marketing and outreach efforts. In order to maintain enrollment at current levels the department must has high visibility marketing and participation in student-related activities at national meetings, such as the American Academy of Forensic Sciences.

#### **RELATED ITEM LEVEL 2**

# Graduate Research Assistantships

# **KPI Description:**

Resources available to support graduate assistantships and scholarships.

# **Results Description:**

During this academic year the department received assistantship support to fully-fund ten of the thirty MS students at a rate of \$12,000 per student (inclusive of scholarship).

#### **RELATED ITEM LEVEL 3**

# **Enrollment and Retention**

# **Action Description:**

Due to the increased emphasis on forensic science reform at the national level, the number of FEPAC-accredited programs throughout the United States is growing each year. Additionally, other institutions are also developing doctoral programs in forensic science, increasing competition for high quality students. The Department must continue to offer student assistantships and scholarships support in order to remain competitive with other programs. It must also increase marketing and outreach efforts. In order to maintain enrollment at current levels the department must has high visibility marketing and participation in student-related activities at national meetings, such as the American Academy of Forensic Sciences.

# Update to Previous Cycle's Plan for Continuous Improvement

# Previous Cycle's Plan For Continuous Improvement (Do Not Modify):

Shortfalls in physical (laboratory) space for teaching and research must be addressed. Failure to do so will stifle enrollment, produce attrition among faculty and impede our ability to recruit tenure track faculty. During the upcoming year, we must place additional emphasis on budgeting and allocation of appropriate resources for capital equipment (repair, replacement, new purchases) to support the graduate programs at the MS and PhD level.

#### Update of Progress to the Previous Cycle's PCI:

Shortfalls in physical (laboratory and office) space continue to present a significant challenge. These issues have been addressed in the department and college strategic plans and await a long-term solution. Although recruitment of students was not adversely affected, faculty recruitment is particularly challenging when science faculty are not provided a research laboratory. Although this limitation makes it hard for us to compete with other institutions, we were able to successfully recruit faculty and replace an additional faculty member (due to attrition/resignation). The department was able to remodel storage space into two faculty offices and although doctoral students do not have office space or computers, revenue form the Institute for Forensic Research, Training and Innovation (IFRTI) were used to secure them laptop PCs to facilitate their laboratory research.

Institutional support in the form of capital equipment was critical during this first year of the doctoral program (with an anticipated \$350,000 next year). Although the department was not allocated specific funds in support of scientific equipment repairs, for the first time it was possible for the department to fund all repairs from its allocated O&M budget, in large part because of the offset costs from external funding and utilization of indirect costs to support research.

# Summary

# **Closing Summary:**

The Department of Forensic Science will continue to align its Strategic Operational Plan with much-needed resources to support graduate education in forensic science. Specifically, institutional support to meet the needs of the recently implemented doctoral program must be addressed, related to capital equipment, repairs, scientific consumables and physical space. The Department of Forensic Science must also address graduate student financial support within its master's program in order to remain competitive with other programs and attract high quality students. Finally, "clustering" or the unequal distribution of students among research faculty will be evaluated to determine its impact on productivity, morale, publication rates and faculty retention.

**RELATED ITEMS**