

# Unit Assessment Report

*Submit to the Institutional Research and Assessment Office by August 1st*

**The goal of this unit assessment is to inform institutional effectiveness.** Institutional effectiveness assessment is conducted to determine the extent to which the college is achieving its mission. The unit supports this by identifying expected outcomes, assessing the extent to which it achieves these outcomes, and providing evidence of improvement based on analysis of the results.

## Academic/Fiscal Year: 2017-2018

**Person submitting report: Marty Sigwing**

**Unit name: Facilities Management**

**Unit mission: To provide an attractive, clean, and safe environment to learn and work in.**

**Areas included in the unit: Maintenance, custodial, and grounds.**

Outcomes	Outcome Target	Institutional Link
<b>What do you want to accomplish?</b> Please list at <u>least two</u> outcomes your unit will be assessing in the next few years to determine improvement in operational processes or procedures. Sometimes outcomes are listed as tasks. Outcomes are specific and measureable and can be strategic or operational.	What level of achievement do you want obtain for each outcome? The outcome target should be aggressive but attainable.	How does the outcome assist the college in achieving its mission? If outcomes support other identified institutional priorities, attach supporting institutional documentation
<b>Outcome 1</b> Provide a safe, orderly, clean, and visually appealing exterior environment (grounds)	Zero negligence reports due to grounds related issues	Provides a conducive environment to learn and work safely.
<b>Outcome 2</b> Protect and maintain buildings and building systems and equipment through predictive, preventive, and corrective maintenance programs.	85% of work orders to be predictive/preventive, with 15% as unplanned (corrective).	Provides a conducive environment to learn and work safely.
<b>Additional Outcomes (optional):</b> Reduce maintenance costs while maximizing efficient operations.	5% or less increase in cost per square foot compared to last year.	Provides a conducive environment to learn and work safely.
Performance Indicators		
<b>What will you <u>do</u> to achieve your outcomes?</b> Identify the performance indicators you will be using to assess achievement of your outcomes. Select your most important indicators. You should have <u>at least two</u> performance indicators for each outcome.		
<b>Outcome 1:</b> Indicator 1 - Examine academic and athletic scheduling to determine best times to mow, trim, collect trash, etc. with minimal impact to college functioning. Indicator 2 - Conduct periodic inspections. Prioritize grounds-keeping needs and address	<b>Outcome 2:</b> Indicator 1 - Send periodic campus messages asking to identify any preventative issues, prioritize preventative issues, complete those most likely to interfere with college building functioning. Indicator 2 – Upgrade maintenance software (CMMS) to a solution that will increase overall	<b>Additional Outcomes (optional):</b> Monitor budget as well as establish performance indicators to be used in conjunction with benchmark standards.

most pressing needs and non-budget impacting needs first.	efficiency and allow staff to better track maintenance tasks.	
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**Assessment Measures**

**How and when will you measure your success?** Identify at least two ways of measuring each outcome. At least one measure for each outcome should be a direct measure. Direct measures are quantifiable.

<p><b>Outcome 1</b>          Direct method: Track and record number of negligence grounds-related reports at the end of each fiscal year to determine total number of reports.          Other methods: Track number of complaints each fiscal year related to daily tasks such as mowing, trimming, emptying trash, etc. to determine disruption to institutional functioning.</p>	<p><b>Outcome 2</b>          Direct method: Compare ratio of completed predictive/preventive vs. corrective work orders each fiscal year to the previous year.          Other methods: Track each fiscal year, the number of mechanical or electrical failures that result in building or system interruptions.</p>	<p><b>Additional assessment (optional):</b>          Direct method: Direct: Each fiscal year, calculate cost per square foot compared to last year.          Other methods: Record each fiscal year changes in processes, procedures to determine estimated cost savings or more efficient operations.</p>
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**Assessment Results:**

<p><b>Outcome 1</b></p> <table border="1"> <thead> <tr> <th colspan="3">Accidents and Complaints</th> </tr> <tr> <th>Year</th> <th>Accidents</th> <th>Complaints</th> </tr> </thead> <tbody> <tr> <td>2015/16</td> <td>2</td> <td>12</td> </tr> <tr> <td>2016/17</td> <td>0</td> <td>8</td> </tr> <tr> <td>2017/18</td> <td>3</td> <td>6</td> </tr> </tbody> </table> <p><i>Table 1</i></p>	Accidents and Complaints			Year	Accidents	Complaints	2015/16	2	12	2016/17	0	8	2017/18	3	6	<p><b>Outcome 2</b></p> <table border="1"> <thead> <tr> <th colspan="5">Work Orders</th> </tr> <tr> <th>Year</th> <th>Comp</th> <th>Correct</th> <th>Predict Prevent</th> <th>% Corrective</th> </tr> </thead> <tbody> <tr> <td>2015/16</td> <td>1261</td> <td>1179</td> <td>82</td> <td>93.50%</td> </tr> <tr> <td>2016/17</td> <td>1496</td> <td>1406</td> <td>90</td> <td>93.98%</td> </tr> <tr> <td>2017/18</td> <td>1356</td> <td>1246</td> <td>125</td> <td>91.89%</td> </tr> </tbody> </table> <p><i>Table 2</i></p> <table border="1"> <thead> <tr> <th colspan="3">Disruptive Failures</th> </tr> <tr> <th>Year</th> <th>Electrical</th> <th>Mechanical</th> </tr> </thead> <tbody> <tr> <td>2015/16</td> <td>1</td> <td>7</td> </tr> <tr> <td>2016/17</td> <td>6</td> <td>10</td> </tr> <tr> <td>2017/18</td> <td>0</td> <td>2</td> </tr> </tbody> </table> <p><i>Table 4</i></p>	Work Orders					Year	Comp	Correct	Predict Prevent	% Corrective	2015/16	1261	1179	82	93.50%	2016/17	1496	1406	90	93.98%	2017/18	1356	1246	125	91.89%	Disruptive Failures			Year	Electrical	Mechanical	2015/16	1	7	2016/17	6	10	2017/18	0	2	<p><b>Outcome 3</b></p> <table border="1"> <thead> <tr> <th colspan="4">Operations and Utilities</th> </tr> <tr> <th>Year</th> <th>Actual Budget</th> <th>\$/sqft</th> <th>% Chg</th> </tr> </thead> <tbody> <tr> <td>2015/16</td> <td>\$909,210</td> <td>\$2.12</td> <td>n/a</td> </tr> <tr> <td>2016/17</td> <td>\$958,738</td> <td>\$2.24</td> <td>5%</td> </tr> <tr> <td>2017/18</td> <td>\$896,733</td> <td>\$2.09</td> <td>-6%</td> </tr> </tbody> </table> <p><i>Table 3</i></p>	Operations and Utilities				Year	Actual Budget	\$/sqft	% Chg	2015/16	\$909,210	\$2.12	n/a	2016/17	\$958,738	\$2.24	5%	2017/18	\$896,733	\$2.09	-6%
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## **How does the unit plan to use the results to improve student learning and/or unit effectiveness?**

**Outcome 1** Provide a safe, orderly, clean, and visually appealing exterior environment (grounds).

The accident rates are a direct measurement and will be used to identify potential safety risks and hazards that are grounds-related such as uneven surfaces, potholes, untreated ice, and snow accumulations. Other conditions may also exist that include trash/debris and poor lighting. By tracking these accidents and examining each on an individual basis the root causes can be analyzed and appropriate actions taken.

The complaint data is an indirect measurement that shows the effectiveness of the unit in the eyes of its customers. Similar to the accident data, the complaint data will be analyzed for validity and sorted by cause. Unlike the accident data however, a portion of the complaint data can be subjective and in some cases false. Investigation followed by good communication and education in these cases can prevent a future complaint and create support for the unit.

**Outcome 2** Protect and maintain buildings and building systems and equipment through predictive, preventive, and corrective maintenance programs.

Outcome 2 examines the ratio of predictive/preventive work orders compared to corrective work orders. The target ratio is 85/15 which if attained allows the unit to service equipment before it fails. Under the corrective model work is done after the failure and can be substantially higher in cost.

Also examined in outcome 2 are the number of disruptive failures of electrical and mechanical systems that interrupt the business or educational environments. These failures include electrical, natural gas, lighting, HVAC, and water and sewer. While some of these services are beyond the control of the unit such as electrical power and water from the utility providers they are still recorded and analyzed.

**Additional Outcomes (optional):** Reduce maintenance costs while maximizing efficient operations.

The additional outcome measurement is the cost per square foot of the operating budget of the unit compared to the prior year, with a goal of 5% or less increase. This measurement is a good indication of the efficiency and productivity of the unit which are important components of the unit's effectiveness.

## **Please describe in detail the action plan, including when, these actions will be implemented?**

### **Outcome 1**

Accidents are currently reviewed monthly to assess and control hazards. Future plans for the next 12 months include new safety training and awareness topics as well as updating safety rules, policies, and procedures based on accident history. Note - When accidents occur the health of the affected individual takes precedence over all other activities. Only when this important step is complete can the investigation and correction of the condition that caused the accident begin.

Beginning with the fall 2018 semester, the complaint data will be sorted by cause and evaluated for any themes that might emerge. These themes will then be used to identify any opportunities for improvement with the grounds procedures or in the case of a false complaint to educate the campus.

## Outcome 2

To help with the process of tracking and evaluating the predictive/preventive vs corrective work orders a new Computer Maintenance Management System (CMMS) was purchased through an internal college grant. This new software allows work done by both in-house staff and contracted vendors to be tracked, sorted, and reported. The unit began using the new software in December of 2017 and will spend the next 10 to 12 months inputting equipment information for the predictive/preventive tracking measurement. (until the implementation of the new CMMS predictive/preventive work orders were tracked by hand).

Tracking and analyzing of the disruptive failures began in January of 2015 and is being recorded and analyzed using Microsoft Excel software. Root causes resulting from this analysis are then distributed to the appropriate parties (utility providers or maintenance staff) for review and ultimate resolution.

### Additional Outcomes (optional):

The action plan for tracking the unit's cost per square foot began in 2015 and utilizes Microsoft Excel tables to analyze the data. Information from this analysis is then shared with the unit's CFO to determine if an increase greater than 5% is an indication of a problem or a result of an uncontrollable factor such as a rise in utility rates or unforeseen regulations

**Are any of the unit outcomes changing for next year?**

Yes

(No)

(If you answer yes, the IRA office will send you a new prepopulated template to adjust for the 2018-2019 reporting year).

### Assessment committee feedback:

Unit Assessment Timeline	
August 1	Assessment plan due for current fiscal year.
September 1	Assessment committee provides feedback
September 14	Any clarification or changes need to the plan are resubmitted to the assessment committee
Academic Year	Implement the assessment plan.
August 1	Final report from the previous fiscal year is due and upcoming assessment plan for the current fiscal year.

Direct measure: data—evaluates actual performance, is quantifiable. Examples: number of reported crimes on campus, number of outstanding tuition payments, service will be provided within two days of request, retention data, time, cost, productivity

Indirect measure: evaluates perceived performance, is qualitative, based on feelings or perceptions. Examples: surveys, focus groups, perceived efficiencies

Institutional effectiveness: Assessment to determine the extent to which a college or university is achieving its mission. The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of improvement based on analysis of the results.

Performance indicator: A means of objectively quantifying results of products, projects, services, or programs.

Strategic outcome: Implementation of initiatives intended to contribute to a strategic goal. There is an impact on goal performance to do that implementation.

Operational outcome: Addresses regular operational or procedural tasks. Generally provide service or product. Direct and indirect effects on stakeholders.