ENGINEERING & DESIGN MAKERSPACE

**IMPACT REPORT**

*[Fall 2021 – Spring 2022]*

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**VISITOR REPORT:**

The makerspace has served a total of **1427** students over the course of the 2021-2022 academic year. ***This does not include students who utilize the space for class/lab sessions.*** This is likely an underestimate of actual use due to the inaccuracies of the current manual sign-in process (also, in Spring 2022 we were testing an online sign-in system and lost some sign-in data). The below table summarizes student users by quarter.

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| **Estimated Number of Student Users/Quarter** |
| Fall 2021\* | Winter 2022\*\* | Spring 2022 |
| 433 | 455 | 539 |

*\*reduced capacity due to social distancing requirements*

*\*\*closed weeks 1-3 due to Covid*

Over the course of the year….

* **4.8% increase** from fall - winter quarter
* **15.6%** increase from winter – spring quarter
* May 2022 recorded the highest number of student users with **281** visits
* February 2022 saw the second highest with **270** visits

**BADGES REPORT:**

The Engineering & Design Makerspace Canvas course is used to provide equipment training in the form of online digital badges. There are 502 students currently enrolled in the Makerspace Canvas Course. There has been a total of **550 badges** earned by students this academic year.

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| **Number of Badges Earned** |
| **3D Printing** | **Laser Cutting** | **Sewing** | **Vinyl Cutter** | **Fusion 360** |
| 155 | 179 | 125 | 79 | 12 |
| TOTAL = **550** |

**FUNDING REPORT:**

Funded: STF 2022 “ENGD Makerspace Resource Scaling.” **$27,559.**

Equipment to be purchased: 3D printers, sewing machines, computers.

**STAFF REPORT:**

The table below summarizes Makerspace staffing for the 2021-22 academic year.

* ENGD staff are funded using TA dollars through the ENGD department (CSE funds)
* STC staff are funded through the STF funds
* ENGD staff work includes staffing the space during open hours, attending supervisory meetings, writing proposals, fixing equipment, developing programming, and otherwise supporting the space.
* Total hours worked are approximate and do not account for missed shifts or mid-quarter scheduling adjustments.

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|  | **Fall** | **Winter** | **Spring** |
|  | **ENGD** | **STC** | **ENGD** | **STC** | **ENGD** | **STC** |
| **# staff members** | 3 | 9 | 2 | 11 | 3 | 12 |
| **# hours/week in makerspace** | 24 | 30 | 16  | 58 | 14 | 52 |
| **Total hours**  | **240** | **300** | **200** | **500** | **200** | **560** |

**Reflections from the ENGD Makerspace Supervisor Team:**

Many of the obstacles and challenges we experienced this year were related to staffing. Having a team of STC staff members assigned to the makerspace at the beginning of the year would be beneficial to the supervisor team, student staff members, and makerspace users. It would allow for consistency in communication, training, and scheduling. The STC has agreed to support the ENGD makerspace with approximately 50 hours/week of student staff support.

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| **Suggested Staffing Changes for 2022-23 Academic Year:**Prior to fall quarter, the STC identifies 5-6 students interested in working in the ENGD makerspace (students would need to commit to a minimum of 8hrs/week each, more if desired, for the academic year). That group of students would be assigned to the ENGD makerspace and would work directly with Jill & Lisa throughout the academic year. Jill and Lisa would communicate directly with staff and take care of all training, scheduling, and other staff-related issues. Once the schedule is determined for the quarter, if those students would like additional hours (ex: weekend/evening), and the STC has the need, they could then work with the STC staff to schedule additional hours. |

**Staff Feedback:**

A short survey was administered in May 2022 to gather feedback from staff.

Key takeaways:

* Students enjoy working in the makerspace.
* There is a need to provide additional training and support.
* The communication (lack of) between the STC and ENGD makerspace is challenging for students. This extends to scheduling as well.
* Additional training opportunities would be beneficial.

Results from the Survey:

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