

1. Assessment Plan - Four Column



PIE - Technology & Health: Architecture, Industrial Design Engineering & Manufacturing Unit

Narrative Reporting Year

2017-18

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Program Planning Dialog: Increased collaboration between programs in support of our "hands-on maker" goal increases student competence and confidence beyond traditional theoretical and virtual projects. Collaboration also leads to "cross fertilization" between students

ARCH:

Incorporated use of digital manufacturing tools at the beginning in the first semester of academic path in student curriculum. Converting classes that are not current with industry standard to integrate more digital and manual fabrication to prepare students with desirable skills in design and construction.

ECT:

Developed voluntary "ride-along" program with the City of San Dimas Building Inspection officials as access to possible internship with their Building / Plan check Department.

IDE:

Improved design curriculum to demystify concepts, make elusive concepts more tangible and accessible to improve student confidence and early success. More work necessary to create nesting modules.

MFG: Program schedule was re-organized to offer fewer classes per semester but to spread courses through the winter and summer inter-sessions. automation focus--potential collaboration with PCC

Strong workforce collaboration. (Cross-Town Hub Collaboration between GCC, PCC, Cerritos and MtSAC)

MtSAC faculty have provided substantial design and development work to the pilot project and provide direction for this collaboration which is now gaining momentum. PCC recently made it's own important contribution which the schools plan to integrate in further iterations. PCC and MtSAC also discussed collaboration on a manufacturing automation project. in the upcoming year.

External Conditions, Trends, or Impacts: Industry employers continue to have a hard time finding skilled workers to fill their needs.

IDE and MFG programs struggle to increase awareness and need funding for marketing and related activities.

IDE & MFG:

Marketing and outreach activities are currently the single, most needed resource for IDE and MFG Tech programs. School resources and on-campus advertising are insufficient to reach our target demographic.

IDE and MFG Tech programs especially, suffer from lack of awareness and misinformation by the public regarding what these subjects, professions and industries actually entail and the related in-demand job market. State and local agencies do not have accurate or useful metrics on job data because job descriptions and employers use only vaguely standardized categories. We need to market and explain to our prospective student population what we do and that there are a wide range of companies seeking skilled labor in all of the areas we provide instruction in and that our programs are uniquely suited to provide them with an education and skills that will give them a distinct advantage over their competition in the job market.

Industry partners such as ELA Lighting, Pacific Miniatures Inc., The National Tooling and Machinists Association foundation and the Jet Propulsion Laboratory and others routinely tell us about the difficulty they have in finding skilled labor.

Automation focus--potential collaboration with PCC as proposed second phase of the Strong Workforce Grant

Architecture firms desire potential employees to have basic knowledge of particular software used in practice but not taught in Universities. Past Mt. SAC students who transferred without taking the courses we offer that would fulfill that need have been inquiring if we offer those classes in the summer intersessions.

Arch and IDE faculty contributed time and resources to new MakerLab. students from the program use this resource on a regular basis.

Internal Conditions, Trends, or Impacts : Lack of funding for student assistants is a critical problem. In the past, these students have helped other struggling students with homework and lab projects as well as monitoring and assisting with lab facilities and operation of high tech equipment such as laser-cutters, CNC machining centers and 3D printers.

IDE/MFG: Difficulty keeping machine-student ratio high to minimize access bottleneck. As other programs begin to collaborate and share technology, this "good problem" is compounded. We are attempting to distribute load by spreading classes and open lab time. Haas CNC machine simulators are a particularly limiting factor (6 units for 20 students)

IDE: Usefulness of student assistants to date are limited because they cannot assist in the same class they are taking and classes run simultaneously, so they are in another class when they are needed most. Perkins funds limit student activities, so an alternate, predictable.

IDE: One full time faculty did not receive tenure and left the program early which caused significant disruption to course planning. Adjuncts were hired to fill the gap. This took substantial time for all faculty to re-tool and prepare for the spring semester.

ARCH: Failed Search. Hired a full time faculty to fill the 3rd vacant spot. However, after the first year of employment he selected not to continue with his teaching position at Mt. SAC. One of the tenured professors will take sabbatical in the coming academic year. Arch/ECT will be administering with one full time faculty. Complete course offerings may be limited if potential adjunct who has been recruited is not hired by beginning of Fall.

Equipment Technician left the department abruptly two weeks before the start of spring classes. This is a critical position that supports IDE, MFG and ARCH. A substitute has been hired. Hiring process for permanent replacement has begun.

IDE/MFG: Marketing especially for low visibility night programs is critical. Many people on campus and especially in the community still do not know what we do or what is in building 28A-102

Hired adjunct faculty through Strong Workforce grant, to photograph students at work and student projects for website and social media.

Set up special photo shoot using MtSAC marketing photographer to document student activities and work to maximize efficiency of campus staff and resources.

Space constraints continue and are increasing physical, logistical and safety problems--especially as programs increasingly collaborate. This includes material storage space as well as shop space.

A new basement lab was added to help address the problem of full scale functional labs so arch students can build models at larger scale with actual materials rather than just foam core. However, infrastructure such as work tables, stools and storage is required for it to be useful and has yet to be funded.

The work experience course has been very useful for helping students continue to apply and develop their skills outside of class and especially over the intersessions. Increased use of work experience courses would benefit from the addition of a dedicated career specialist.

Perpetual unpredictability of campus policies and schedules causes considerable disruption to program planning and operation.

Arch/IDE Students who do not own their own computers or lack the financial means to purchase software required to complete assignments, require access to labs on weekends. Arch have been voluntarily keeping labs open every Saturday for accessibility when there are no classes offered. Because of personal scheduling conflicts, labs cannot be open on Sundays. This impacts student performance. There have been discussions of setting up computer stations with required software in the Library Learning Center as they are open for limited hours over the weekend, but nothing has yet come to fruition.

Critical Decisions Made by Unit: 1. Development of the ECT program curriculum based on advisory input will need to be agreed upon to not delay deployment of the new program. The ARCH program needs to find a solution to the issue of creating a cohort at the entry level by linking ARCH101 and ARCH121.

2. Program level outcomes were updated at the end of the term.

3. Former EDT89 Work Experience course converted to IDE 89 and MFG 89 to support individual programs more specifically.

4. Added large format CNC router to shop to make larger projects and larger quantity of projects possible. This machine is more representative of industry.

Notable Achievements for Theme A: To Advance Academic Excellence and Student Achievement: 1. Arch and MFG programs won Bronze award for the Strong Workforce Grant

2. Department student success rate rose from 73.1% to 75.6% from spring 2016 to spring 2017

3. 20 MFG/ IDE students passed the SolidWorks industry certification (CSWA) exam and 5 passed the higher level CSWP exam in the MFG 210 Advanced CAD course. These industry certifications are increasing in popularity

4. 91% of graduating IDE students achieved level 3 certification.

5. 83% of second semester IDE students achieved their Level 1 certification

6. IDE: Three students accepted to: Art Center College of Design, Otis Parsons School of Design and Arizona State University (Herberger Institute for Design and the Arts,

Industrial Design program). Five others plan to transfer to CSULB or other schools upon completion of their G.E. requirements.
Two students hired by local industry, one internship

7. First offering of MFG 260, a new dedicated CNC machining course to expand hands-on CNC operation and experience.

8. ARCH and IDE students participated in the Design Village competition at Cal Poly San Luis Obispo

Notable Achievements for Theme B: To Support Student Access and Success: 1. Arch and MFG programs won Bronze award for the Strong Workforce Grant

2. Pathways mapping completed for all programs.

3. MtSAC IDE program completing first student contribution to the Cross-Town Hub collaboration.

Notable Achievements for Theme C: Secure Human, Technological, & Financial Resources: 1. One additional CNC large format router added using (Perkins funds) to shop floor for a total of 4 CNC routers of various scales. This will make larger, more architecturally oriented projects possible and reduce student access bottleneck

2. License renewal of MasterCAM (Perkins funds) enabled MFG Tech program to continue to offer two MasterCAM courses and remain current with industry releases.

3. Perkins funding used to hire student assistants was especially critical throughout semester due to equipment technician abruptly leaving two weeks before the start of the spring semester.

4. Strong Workforce funds used to hire two professional experts to assist with increased student flow through department shop area in 28A-102. In particular, they have helped ARCH students who need extra assistance with the laser cutters and CNC routers.

5. One additional CNC mill added as part of CTE "Cross Town Partnership" collaboration with Glendale Community College

7. Shop skills and higher levels of "Maker Critical Thinking" continue to be integrated into the IDE, ARCH Programs course content which helps to close the gap between design process and the construction of built elements. This is a process which requires continual development.

Notable Achievements for Theme D: To Foster an Atmosphere of Cooperation and Collaboration: 1. Additional CNC large format router added to shop floor for a total of 4 CNC routers of various scales. This will make larger, more architecturally oriented projects possible and reduce student access bottleneck

2. MtSAC IDE program provided pilot project for Cross Town Hub collaboration between MtSAC, GCC, PCC and Cerritos CC. MtSAC and PCC will complete pilot project 6/15/18. PCC contributed electronic component to be included in future versions. Additional new projects are being discussed.

3. IDE faculty provided training and support for ARCH faculty on CNC routers and 3D printers to encourage adoption and increased use of these important, emerging technologies by ARCH students.

4. ARCH and IDE students participated in the Design Village competition at Cal Poly San Luis Obispo

Contributors to the Report: Stephen James - IDE/ MFG

Hiro Kuroki - ARCH/ECT

Related Documents:

[DUST COLLECTOR 01.pdf](#)

[WORK TABLES/ LOCKERS](#)

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
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Promote a "Hands-on "Maker" Philosophy - Promote goal-oriented iterative experimentation and the physical application of conceptual and virtual processes.
Status: Active
Goal Year(s): 2017-18, 2018-19, 2019-20, 2020-21
Date Goal Entered (Optional): 06/14/2017

Report directly on Goal

Full Funding Requested -
Professional expert(s) that are not taking program courses and can continue assisting between semesters and regardless of the cohort timing.
Describe Plans & Activities
Supported: Coverage for increased pen lab time
Type of Request: Staffing
Planning Unit Priority: High

Reporting Year: 2017-18
% Completed: 25
Increased use of large shop in 28A-102 and full size equipment by architecture students has greatly increased the "hands-on" experience for them. In particular, the increased use of the CNC routers in collaboration with the IDE program has provided a way for students to connect the design of digital objects to the fabrication of the physical version.
Availability of the new Maker Space has encouraged students to continue working on their own projects after class and on Fridays and Saturdays.
Extended Equipment Technician hours and community volunteers provide students with additional access to the 28A-102 shop.

Need to perpetuate equipment tech

support school policies of students not working alone.
student assistants unavaillable during class time so need to hire outside personnel as prof experts. (04/11/2018)

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
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Documentation Attached?: No

<p>Software Currency and Timely Implementation. - Ensure most current versions of core program software packages are purchased, installed and debugged prior to program start each semester. Digital design, engineering and visualization software is at the core of three of the four department programs and is used for most of the curriculum. Software drives other industry-related digital fabrication technologies such as laser-cutting, 3D printing and CNC machining. Maintaining current and relevant software is extremely important in helping our students meet industry needs and compete in the job market as well as successfully transfer to four-year institutions.</p>	<p>Report directly on Goal</p>	<p>Reporting Year: 2017-18 % Completed: 50 Software packages are at the core of our programs and vital to their success. Our software drives all other program activities from conceptual design to documentation and fabrication of projects. Funding for software is critical to student success each year. It is critical that new software updates are installed and tested well before the start of classes each semester or year in order to maintain program continuity and credibility with students. It is critical that software is installed with the appropriate default options. Current and previous installations have been incorrect requiring students to perform a basic software configuration for every class which greatly impacts class-time budget, student frustration and erodes "technology" program credibility. (04/06/2018)</p>
<p>Status: Active Goal Year(s): 2017-18, 2018-19, 2019-20, 2020-21 Date Goal Entered (Optional): 06/19/2017</p>	<p>Full Funding Requested - Rhino, Revit, SolidWorks, MasterCAM, AutoCAD, and similar miscellaneous software per associated contracts and program needs. (Cost of some contracts are divided over several years) Rhino (\$3k-Arch) Revit (\$5k-Arch) SolidWorks (\$7k/ 3 year license--IDE/MFG) Master Cam (\$5k--MFG) AutoCAD (\$5k--MFG) Misc: \$3k (All Programs) Describe Plans & Activities Supported: Software renewals and maintenance. Use current software to design, evaluate, document and fabricate mechanical and product-oriented projects</p>	<p>Reporting Year: 2017-18 % Completed: 100 Software packages are at the core of our programs and vital to their success. Our software drives all other program activities from conceptual design to documentation and fabrication of projects. Funding for software was critical to student success for the year. This funding is program critical and will recur every year. (06/26/2017)</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
	<p>Lead: I. Sardinias, S James</p> <p>One-Time Funding Requested (if applicable): 21000</p> <p>Planning Unit Priority: High</p> <p>What would success look like and how would you measure it?: Successful acquisition and implementation</p>	
<p>Software: Manitain current, industry-representative software. - Digital design, engineering and visualization software is at the core of three of the four department programs and is used for most of the curriculum. Software drives other industry-related digital fabrication technologies such as laser-cutting, 3D printing and CNC machining. Maintaining current and relevant software is extremely important in helping our students meet industry needs and compete in the job market as well as successfully transfer to four-year institutions.</p> <p>Status: Inactive</p> <p>Goal Year(s): 2017-18, 2018-19, 2019-20, 2020-21</p> <p>Date Goal Entered (Optional): 09/01/2016</p>	<p>Report directly on Goal</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 25</p> <p>Implementation of MFG 105 Intro to AutoCAD is on hold as we focus on the development of other courses. (04/06/2018)</p>
<p>Facilities: Maintain and invest in industry-representative facilities and infrastructure - Continued need for updated facilities and infrastructure that are representative of industry practices in all programs in order to maintain industry level course content and expectations and to</p>	<p>Full Funding Requested - Work tables , storage lockers and work stools to populate and support new basement lab in Building 28A. This room was provided to support the ARCH program need to fabricate larger construction-oriented demonstration projects, but was</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 0</p> <p>No lockers or storage has been purchased. Several funding requests including the Perkins grant have not materialized. Limited storage space is an increasing problem for all programs in the department. The addition of the new architecture fabrication lab (basement of 28A) has increased the need for basic</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
<p>establish credibility with industry partners and potential students. This includes lab facilities and equipment that are clean, organized, reliable and professional in operation and appearance.</p> <p>Status: Active</p> <p>Goal Year(s): 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21</p> <p>Date Goal Entered (Optional): 06/20/2017</p>	<p>provided empty. Until it is populated with basic work tables, lockers and seating, the room is impractical for class use and planning. The ARCH fabrication classes are forced to move between three rooms and work outside at night with insufficient lighting.</p> <p>the department has combined various tables and seating in an ad-hoc fashion, but this is not a sustainable long term solution. This situation continues to erode program credibility with students.</p>	<p>infrastructure items even more: seating (work stools), storage and work tables.</p> <p>(04/06/2018)</p>
	<p>Describe Plans & Activities</p> <p>Supported: Fabrication of durable functional structural models and construction-based demonstration projects</p> <p>Lead: S. James, I Sardinas</p> <p>One-Time Funding Requested (if applicable): 30000</p> <p>Type of Request: Facilities , Instructional Equipment</p> <p>Planning Unit Priority: High</p> <p>What would success look like and how would you measure it?:</p> <p>Students have a usable, predictable space near the larger shop equipment in 28A that is protected from the elements.</p> <p>Documentation Attached?: Yes</p> <p>Full Funding Requested - full scale building and construction lab</p> <p>Lead: I Sardinas</p> <p>One-Time Funding Requested (if applicable): 50000</p> <p>Planning Unit Priority: Medium</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 0</p> <p>This has not been funded. Classes are being held outside at night with ad hoc lighting and power. This is a credibility issue for students as well as adjunct faculty. (05/29/2018)</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
	<p>Full Funding Requested - Material storage racks for basement lab.</p> <p>Describe Plans & Activities</p> <p>Supported: Small space (approx 250 sqft); storage racks or equivalent</p> <p>Lead: Stephen James, Ignacio Sardinias</p> <p>One-Time Funding Requested (if applicable): 1200</p> <p>Type of Request: Facilities</p> <p>Planning Unit Priority: High</p> <p>What would success look like and how would you measure it?: Cleaner, more functional shop. Better use of limited space</p> <p>Full Funding Requested - Large scale dust collection system. (Cyclone dust collector(s), dust extraction ducting network and installation)</p> <p>Describe Plans & Activities</p> <p>Supported: Many fabrication activities done by students in our department involve cutting, sanding and finishing of wood, plastic and metal materials.</p> <p>CNC machining is a core skill for IDE, MFG and Arch and produces a large amount of dust. These and similar machines such as wood lathes are used in smaller, enclosed labs with dedicated dust collectors and room filtration, but a large, centralized unit would be more powerful and efficient.</p> <p>Lead: S. James</p> <p>Type of Request: Facilities</p> <p>Planning Unit Priority: High</p> <p>What would success look like and how would you measure it?:</p> <p>Reduced dust.</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 0</p> <p>Unfunded, so we are proceeding ad hoc. This is a growing need impacted by the increased use of the shop area. This is critical to maximizing the use of limited shop floor space. We could reduce wasted floor space by maximizing unused vertical space using specialized material storage racks and related items (06/01/2018)</p>

Unit Goals

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Where We Make an Impact: Closing the Loop on Goals and Plans

Full Funding Requested - CNC

Simulators for Haas CNC machining centers

Describe Plans & Activities

Supported: Training, practice and validation for the operation of large CNC machining centers. CNC machining is at the core of the IDE and MFG programs because it is a common and central activity across many industries. Employers have a difficult time finding skilled, competent operators. Learning to operate these machines is complex and time consuming. One of the first steps is to learn the universal machine programming language "G-Code" which is entered directly into the machine's interface. CNC machine interface "simulators" are identical machine control panels that are separate from the actual machine to provide a means of learning and practicing the programming language without dedicating an actual machine for this purpose. More simulators mean more direct access and practice. Programming is the primary focus of MFG 250, and a part of several other courses.

Lead: S. James

One-Time Funding Requested (if applicable): 15000

Type of Request: Instructional Equipment

Planning Unit Priority: High

What would success look like and how would you measure it?: Higher

Unit Goals

Resources Needed

Where We Make an Impact: Closing the Loop on Goals and Plans

student access and improved skill set. Would not have to divide class into sections so that part of the class is programming while the other is engaged in another activity. Should be able to incorporate higher-level projects and skills if basic concepts can be attained by the entire class at the same time.

Full Funding Requested - Video

Projector for 301A

Current projector is very old and very dim, even with a brand new bulb, it is somewhat difficult to see the screen with the lights out, but students strongly prefer this room because it has dual monitors on the CAD stations which makes it much easier for them to see blueprints on one screen as the work in CAD on the other.

Describe Plans & Activities

Supported: CAD lab. CAD and design-related activities for IDE, MFG and other programs.

Lead: S James

One-Time Funding Requested (if applicable): 1000

Type of Request: Facilities , Instructional Equipment

Planning Unit Priority: High

What would success look like and

how would you measure it?: Ability to see the screen in medium light and see higher levels of detail typical in industrial prints and CAD projects. Reduction of student frustration and better comprehension & perception of concepts.

Full Funding Requested - Dedicated

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
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outdoor lighting for construction field lab.
Describe Plans & Activities
Supported: Casting of concrete footings and fundamental fabrication of framed example structures. These activities are critical to instill an understanding of the practical application of architectural construction concepts. This lab and the activities it provides support the "hands-on maker" philosophy of the department.
Lead: S. James
One-Time Funding Requested (if applicable): 5000
Type of Request: Facilities
Planning Unit Priority: High
What would success look like and how would you measure it?:
 Students can see what they are working on--especially during fall semester when it is completely dark. Safe working environment. Course will not have to rely on borrowed, inadequate lighting for classes.

<p>Effective and Efficient Use of Facilities, Equipment and Infrastructure - Optimize the use of classrooms, labs, equipment and infrastructure to support, augment and reinforce the curriculum and improve the learning experience. Status: Active Goal Year(s): 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21 Date Goal Entered (Optional): 06/26/2017</p>	<p>Full Funding Requested - Workstation tables and dual monitors/ dual monitor arms 25 Workstation tables: \$8k 25 sets of dual monitor arms: \$8k (No additional monitors or computers required--this will allow us to make use of a set of existing monitors that is not currently being used) Describe Plans & Activities Supported: Evaluate and compare design criteria and engineering</p>	<p>Reporting Year: 2017-18 % Completed: 0 Workstations and monitor arms have not been funded. Some dual monitors have been added for IDE/ MFG in 301A using old, smaller monitors left-over from replaced computer workstations but this implementation is substandard and problematic. The large majority of the class regularly comments on how useful the second monitors are for CAD and related activities--especially the CSWA and CSWP certification exams. Outdated desks and furniture from the 1980's impacts</p>
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<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
	<p>prints and use information to construct CAD models and solve design problems by comparing current state of CAD model to design and engineering requirements and goals.</p> <p>Lead: Stephen James</p> <p>One-Time Funding Requested (if applicable): 16000</p> <p>Planning Unit Priority: High</p> <p>What would success look like and how would you measure it?: Noticeable student engagement, project accuracy and speed of completion. (We added dual monitors in one room already and students are very enthusiastic about how much this helps them.)</p> <p>Documentation Attached?: Yes</p> <p>Related Documents: PIE 2016-2017 MONITOR ARMS 01.pdf PIE 2016-2017 TABLES 01.pdf</p>	<p>program credibility and student self esteem because it appears the college does not take them seriously. (04/06/2018)</p> <hr/> <p>Reporting Year: 2017-18</p> <p>% Completed: 25</p> <p>Experiment with using smaller tables and dual monitors in one room (301a) has been extremely successful and popular with students. Need to replicate in other rooms. Some existing monitors can be re-used to minimize cost. (06/27/2017)</p> <p>Related Documents: PIE 2016-2017 MONITOR ARMS 01.pdf PIE 2016-2017 TABLES 01.pdf</p> <hr/> <p>: Faculty notice large improvement in student performance, cognitive clarity, less frustration and faster, more direct application of lab assignments in large part due to the dual arm monitors. Students will stay after class and use school equipment because they only have single screens at home or on a laptop. Space constraints continue to be a problem. (06/27/2017)</p>
<p>Program Marketing - Increasing awareness of programs through a range of marketing and outreach activities is currently the single, most needed resource for IDE and MFG Tech. School resources and on-campus advertising are insufficient and too inflexible to reach our target demographic.</p> <p>Status: Active</p> <p>Goal Year(s): 2018-19, 2019-20, 2020-21</p> <p>Date Goal Entered (Optional): 06/25/2018</p>	<p>Report directly on Goal</p> <hr/> <p>Full Funding Requested - Marketing activities including campus vehicle signage and wraps, metro bus ads and radio ads. Printed materials and resources.</p> <p>Lead: S. James</p> <p>One-Time Funding Requested (if applicable): 20000</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 25</p> <p>Basic marketing activities have begun (improved website, photo and video documentation or class activities, student success, social media etc) But more resources are needed to effectively support advertising in the local community, industry publications and similar avenues. (05/26/2018)</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
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Type of Request: Marketing
Planning Unit Priority: High
What would success look like and how would you measure it?:
 Increased enrollment and community and industry awareness.
Full Funding Requested -
 Professional industry marketing consultant to raise image and awareness of school and programs with local industry.
Describe Plans & Activities
Supported: Initial research and strategy outline produced
 Specific channels media plan
 Content for social media written, placed according to plan
 Creation of a special web landing page
 PR release written and sent to radius publications
 Creation of a new printed branding/message
 Outreach to related trades
 Outreach to off-campus veterans groups
Lead: S. James
One-Time Funding Requested (if applicable): 12000
Type of Request: Marketing
Planning Unit Priority: High
What would success look like and how would you measure it?:
 Improved community awareness and increased enrollment

Inter-Program Collaboration - Continue current collaboration efforts between programs and foster new ones.	Report directly on Goal	Reporting Year: 2017-18 % Completed: 25 Increased participation and collaboration between IDE and Arch programs. Increased use of main shop area and use of
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<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
<p>Status: Active Goal Year(s): 2017-18, 2018-19, 2019-20, 2020-21 Date Goal Entered (Optional): 06/16/2017</p>	<p>Report directly on Goal</p> <hr/> <p>Full Funding Requested - CAD Software (AutoCAD & SolidWorks) Electronic components, 3D printing, laser cutting and general fabrication supplies. Lab facilities for electronic and physical models Fabrication equipment</p> <p>Describe Plans & Activities Supported: Continue to develop collaboration with ELEC programs after very successful pilot project during semester Fall 2016. This has been a very successful endeavor and popular with students, who recognize the reasoning and relevance of the project. Planing to pursue additional projects internally and with other schools beginning Fall 2018 Lead: Stephen James (IDE) & Joe Denny (ELEC)</p> <p>On-Going Funding Requested (if applicable): 1500 Type of Request: Instructional Equipment, Instructional Supplies, Professional Development Planning Unit Priority: High What would success look like and how would you measure it?: Students acquire wider understanding of other related industries and how they overlap with their own field of study. Students have direct, first-hand experience of</p>	<p>equipment by Arch faculty and students--especially laser cutters and CNC routers. IDE faculty has provided several training sessions for CNC router and 3D printers. 3D printing is planned to be adopted by arch during the upcoming year. (04/20/2018)</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
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the thought processes and technical goals of related industry partners.

<p>Personnel requirements and support for Arch - Need to hire replacements for 2 retired Architecture faculty as there is only 1 faculty left in the program to work with a large student and adjunct population. Status: Active Goal Year(s): 2016-17 Date Goal Entered (Optional): 09/01/2016</p>	<p>Report directly on Goal</p> <hr/> <p>Full Funding Requested - in class tutors and assistants Lead: I Sardinias One-Time Funding Requested (if applicable): 17000 Planning Unit Priority: High</p>	<p>Reporting Year: 2017-18 % Completed: 100 Newly hired Arch faculty has decided not to continue teaching in the program. Hiring process will be restarted (04/08/2018)</p> <hr/> <p>Reporting Year: 2017-18 % Completed: 100 Arch and Manufacturing Tech faculty hired (03/08/2018)</p> <hr/> <p>Reporting Year: 2017-18 % Completed: 100 Arch and MFG faculty hired. Arch faculty member has decided not to continue with the program and will leave 6/30/18 MFG faculty member is completing first year. (05/19/2018)</p>
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<p>Negative Impact of Adjunct Hiring Policies - IDE, ARCH and MFG programs need qualified adjunct faculty. The standard minimum qualifications exclude many very qualified individuals solely because they did not complete a formal college degree.</p> <p>This continues to be a self-defeating limitation imposed only by MtSAC and places the school at a distinct disadvantage compared to schools with similar programs.</p> <p>CTE programs that promote the idea that students do not need a formal degree to get a job, should not exclude former CTE students who have substantial technical and teaching experience from being hired</p>	<p>Report directly on Goal</p> <hr/> <p>Full Funding Requested - Faculty professional development funding Lead: I Sardinias One-Time Funding Requested (if applicable): 12000 Planning Unit Priority: High</p>	<p>Reporting Year: 2017-18 % Completed: 0 No effective change. This policy has continued to negatively impact the department programs, in particular MFG. (04/06/2018)</p>
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<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
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simply because they did not complete a degree.
Status: Active
Goal Year(s): 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21
Date Goal Entered (Optional): 09/01/2016

Technical Currency of Support Staff -
 Help staff maintain currency with technical and support needs of department through training in related area
Status: Active
Goal Year(s): 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21
Date Goal Entered (Optional): 06/27/2017

Report directly on Goal

Reporting Year: 2017-18
% Completed: 50
 Supplemental Skills: Staff need to maintain computer and office software proficiency to assist programs in an efficient and effective manner. (Active)
 (04/20/2018)

No Funding Requested -
 Supplemental Skills: Staff need to maintain computer and office software proficiency to assist programs in an efficient and effective manner.
Describe Plans & Activities
Supported: Additional time to attend training courses
Lead: Stephen James
Type of Request: Professional Development
Planning Unit Priority: High
What would success look like and how would you measure it?:
 Completed project at a professional level.

No Funding Requested - Time resources
Describe Plans & Activities
Supported: Critical staff training for program-specific software and technology.
 Support staff, especially I.T. staff need to meet with faculty at least once per semester to review and

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
	<p>train on various set-up, installation, maintenance and repair details and strategies per evolving program needs and software/ technology updates.</p> <p>Lead: Stephen James</p> <p>Planning Unit Priority: High</p> <p>What would success look like and how would you measure it?:</p> <p>Successful implementation of software and technology in a manner that is efficient, appropriate and timely according to program operation.</p>	
<p>Restructuring of Manufacturing Technology Program - Restructuring of MFG program and certificates.</p> <p>Status: Active</p> <p>Goal Year(s): 2017-18</p> <p>Date Goal Entered (Optional): 09/01/2016</p>	<p>Report directly on Goal</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 50</p> <p>New courses in place. Some modifications still required as program develops.</p> <p>Reduced number of classes offered each semester but now classes will be offered during the winter and summer inter-sessions.</p> <p>Spring was the first offering of MFG 260 the first dedicated CNC operation course offered at Mt SAC and a critical need for industry partners. (04/11/2018)</p>
<p>Experience and Application of Program Skills - Use EDT89 class to help students practice skills learned in IDE/MFG and develop work-related skills and habits</p> <p>Status: Active</p> <p>Goal Year(s): 2017-18</p> <p>Date Goal Entered (Optional): 06/27/2017</p>	<p>Report directly on Goal</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 100</p> <p>The work experience course has been very successful. An increase in student participation during the winter intercession of over 50% compared to the summer intercession.</p> <p>With the closing of the EDT program, the course has been split into two courses and renamed: MFG 89: Work Experience in Manufacturing, and IDE 89 Work Experience in Industrial Design Engineering (04/20/2018)</p>
	<p>No Funding Requested - Work Experience (Internal, for programs)</p> <p>Students work as fabrication interns to use and develop their skills to</p>	

Unit Goals

Resources Needed

Where We Make an Impact: Closing the Loop on Goals and Plans

improve the Arch, ECT, IDE and MFG programs by assisting with.

Describe Plans & Activities

Supported: Support for the Work Experience Program

Lead: Stephen James

Planning Unit Priority: High

What would success look like and

how would you measure it?: Projects competed on time, with minimal supervision and at a professional level.

Documentation Attached?: No

Full Funding Requested - Access to shop and labs; Support from equipment technician and student aides. Some miscellaneous materials. (plastic, wood, metal)

Describe Plans & Activities

Supported: Work Experience (Individual or External) Students take EDT89 Work Experience to practice and develop and master skills learned in the program by developing projects for industry partners, or themselves.

Lead: Stephen James

One-Time Funding Requested (if applicable): 500

Planning Unit Priority: High

What would success look like and

how would you measure it?:

Professional level completed project

MFG Faculty - Program requires full time faculty. Hiring process has been started.

Faculty hired for fall 2018

Status: Inactive

Report directly on Goal

Reporting Year: 2016-17

% Completed: 100

Faculty hired (03/08/2018)

Unit Goals

Resources Needed

Where We Make an Impact: Closing the Loop on Goals and Plans

Goal Year(s): 2016-17

Date Goal Entered (Optional):

09/01/2016

Date Goal Archived/Inactivated

(Optional): 06/27/2017