

Instructional Program Review Instructional Program Review Submittal Form (Appendix F)

This form is completed and submitted as a cover sheet for the self-study report

Name of the Program: Plastics Manufacturing Technology

Date Submitted: 03-29-2019

Scheduled Presentation Date: April 16th 2019.

All courses in the program have been reviewed by the Curriculum Committee within the last six year cycle (*circle one*) Yes

Explain any exceptions for non-compliance with curriculum requirements:



The self-study report adequately addresses the following components:

Description of the Program	Yes		No
Course and program content	x		
Student demographics	x		
Human resources	x		
Instructional Improvement	Yes		No
Teaching effectiveness	x		
Activities to improve student learning	x		
Course grading	x		
Course and program completion	x		
Program outcomes	x		
Core indicators (if vocational)	x		
Student feedback	x		
Institutional data	x		
Other	Yes		No
Strengths and weaknesses of the program	x		
Opportunities and threats of the program	x		
Goals of the program	x		

Self-Study prepared by: **David Li and Miodrag Micic** Reviewed by (Division Dean): Yaninck Real.

Cerritos College

Cerritos College CTE Program Review, Spring 2019

Program: Plastic Manufacturing Technology

Division: Technology

Program Description

Plastics Manufacturing Technology (PMT)

The Plastics Manufacturing Technology (PMT) program is currently made up of (34) courses listed in the Cerritos College 2018-19 catalogue. These courses are grouped into areas identified by the industry to help meet both the student goals as well as business and industry needs for a skilled trained workforce.

Course offerings and focused training sessions developed in the PMT program include:

- Fiberglass Reinforced Plastics
- Composites
- Injection Molding
- Plastics Manufacturing Technology
- Tooling and Mold making
- Plastics and Composites Repair
- Survey and Advanced courses

Course Content and Delivery

The program consists of courses that are designed to dovetail for Verification Certificates, Certificates of Achievement, and the Associates of Arts Degree requirements for student success. The following comprises the majority of the program course content represented in the Certificate and Degree options and offered in 9-week and 18-week delivery formats, all courses offered in person so far. And the capstone class is the PMT 100 – Plastics Technology.

PMT 100 - PLASTICS TECHNOLOGY 18 weeks 2.5 Units

This course provides knowledge of materials and processes used in the field of plastics manufacturing today. An overview of plastic technology and application of production processes, as well as fabrication methods are covered. This course includes molding, forming, reinforced materials, bonding, laminating, and finishing techniques and plastic materials identification.

PMT 61 – FIBERGLASS TECHNOLOGY 18 weeks 2.5 Units

This is a course in the industrial use of fiberglass resins, cloth, mat and composite materials. The care and use of equipment (fiberglass chopper gun, gel-coat spray gun) is stressed. Other areas explored are mold laminating, repair, and proper use of resins and fillers. Mixing of resins and safety procedures are emphasized in this course.

PMT 63L – SPECIALTY PLASTICS LAB 9 weeks .5 Unit

This is a lab course to complement other courses in the Plastic/Composite curriculum. It is designed to give practical experience in working with plastics and fiberglass materials. This course may be taken for a maximum of 2 units.

PMT 67 – FIBERGLASS PRODUCTION 18 weeks 2.5 Units

This is a course in fiberglass/composites manufacturing technology.

Areas of concentration include the processes and techniques of fiberglass composites as applied in the industry. This course will place the student in production situations similar to those encountered in industry. The student may also have an opportunity to construct a project of his or her own with instructor approval.

PMT 68 – PLASTICS MATERIALS AND PROCESSES 18 weeks 2.5 Units

This is a course directed toward the study of plastic materials used in processing areas. Proper selection and applications of various thermosetting and thermoplastics are studied. Testing of these materials is covered as specified in the ASTM Standards, including physical properties and chemical properties. Plastic material processing that is covered includes injection molding, compression molding and extrusion.

PMT 70 - COMPOSITES TECHNOLOGY 18 weeks 2.5 Units

This course is designed for students in the field of fiberglass/composites. Emphasis is on the lay-up, vacuum bagging, and cure processing of wet laminating techniques and pre-impregnated materials. Also included are processes of resin transfer molding (RTM), filament winding, protrusion, bonding, and fabrication of composite structures with honeycomb core materials. Laboratory experience will cover safety of handling resins, reinforcements, and related materials.

PMT 65 – MOLDBAKING 18 weeks 2.5 Units

This class introduces students to the fundamentals of plastic injection mold designs and fabrication. This course will include basic shop operation, demonstrations, safety and technology of mold making in the plastic industry.

PMT 72 - TOOLING FOR PLASTICS 18 weeks 2.5 Units

This course covers basic tooling concepts and materials for making various plastic composite molds. These include laminated, cast and high temperature plastic tools as well as plaster tooling. Design recommendations, physical properties data, repair procedures and techniques will be discussed.

PMT 59 - INJECTION MOLDING 18 week 2.5 Units

This course introduces the student to the fundamentals of set-up and operation of injection molding equipment as found in the industry. Training on actual industrial equipment as well as safe material and equipment handling is stressed in this class. This course may be taken for a maximum of 5 units. (Formerly PMT 12)

The program typically provides training for students who are “new” to the technology as well as those industry professionals and working individuals within the industry seeking to upgrade their skills and acquire current educational background including:

- New hires - Production personnel
- Assembly personnel - Manufacturing personnel
- Management personnel - Sales and support personnel
- College Bridge Program students (Middle School, HS juniors and seniors)

Institutional Data

The majority of instructional data was provided by the Cerritos College Department of Institutional Effectiveness, Research and Planning. The data included course completion, fill, success rates; FTES, WSCH, Degrees and Certificates Awarded, and number of registered majors. Supplemental data was obtained from the California Community Colleges DataMart.

College Core Indicator Information by 6-Digit TOP (2012-2019)

Perkins IV, Title I, Part C Local Application

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
CTE Enrollments	482	439	458	527	447	347	291
CTE Headcounts	263	270	266	304	264	193	176
Core Indicator 1 CTE Cohort	100.00	97.78	100.00	100.00	97.78	97.22	100.00
Core Indicator 2 CTE Cohort	33.33	25.00	16.67	42.86	33.33	55.56	33.33
Core Indicator 3 CTE Cohort	89.47	77.78	72.97	83.33	63.64	80.56	85.00
Core Indicator 4 CTE Cohort	N/A	50.00	63.64	N/A	57.89	88.89	N/A
Core Indicator 5a CTE Cohort	2.63	2.22	10.81	13.89	15.56	11.11	20.00
Core Indicator 5b CTE Cohort	0.00	0.00	33.33	14.29	0.00	14.29	0.00

WSCH:

Examining the age by fall terms, the average age is decreasing in this program. While there is a large span and diversity of student age, the density of younger students has increased.

FTEF

The data collected is from the Department Chair as the data in the FTEF table. Currently there is one FT and one PT faculty teaching in the program. With the amount of materials and equipment, this has an extra demand on the FT faculty member teaching in the program.

FTES

The FTES of the Plastics program has recently decreased. The average range of FTES generated is in the mid 50's, but in the 2014-15 year, the FTES dipped to 43. For the six-year span from 2012 to 2018, the FTES range was 26.66 to 64.76 with a mean of 46.59. Trend was generally on decline from 2011 to 2018 with a brief incline in 2014. This was due to several factors, such as retiring instructor who was not interested in following up with the current industry practices, aging equipment, uninteresting projects, and inability of students to register for the classes. The program was too complicated. We have addressed this by replacing all obsolete equipment with new ones, and with hiring competent part time instructors. Furthermore, David Li, who has a core expertise in plastics molding design from ENGT department, is assigned to teach PMT100, and we have seen significant jump of enrollment in Spring 2019.

Degrees and Certificates Awarded

The range of degrees over the past 6 years is between 2 and 4 per year; and for certificates, a small decline (4 to 1 over 6 years). The metric of the Plastics department anticipates to help tell its story is the Skills Builder (Scorecard data, new 2016): many students already have degrees or certificates and are taking specific courses to gain specific skills for their current job—without the intention of gaining another certificate or degree.

Majors

The program offers AA and Certificate of Achievements in Plastics Manufacturing; Composites Manufacturing; Plastics/Composites Tool Design and Composites Inspection.

Enrollment/Fill Rate

There continues to be strong enrollment in the Plastics courses over time; the data is not presented by combined sections, so that data point will be helpful to examine in the future.

Course Completion/Retention Rate

Current Average Course Completion (retention) Rate: 83%

There is a high amount of variance in course completion in each course by term.

Successful Completion/Success Rate

Current Average Course Success Rate: 68%

There is also a high amount of variance in successful course completion in each course by term.

Grade Distribution Data (Disaggregated)

Generally speaking, the program has high engagement by students based on enrollment, completion and success. In examining the disaggregation of data, there does not appear to be an indicator which would signal students need more assistance based on demographics.

SWOT Analysis

Strengths

1. PMT is the only program approved in this specialty in the state and PMT has both a composite component and a plastics manufacturing component in its program
2. Provide students with clear pathways for achieving their educational goals: Update certificate of achievement
3. Ensuring Program Alignment by Strengthening Partnerships: PMT now has a strong link to the ENGT/NPD/MTT/WMT programs on this campus

4. The department has collaborated with the Cerritos College Strong Workforce Internship Program to assist students in gaining hands-on work experience required to succeed in the industry.
5. Implement Design for Manufacturing (DFM)

Weaknesses

1. The program does not have a link to automotive composites yet
2. There is a lack of up to date curriculum in the department
3. There is low academic persistence and graduation in the program
4. The PMT Department does not offer any Distance Education courses.
5. The PMT Department does not know where students who leave the program went – i.e. did they discontinue their academic studies, transfer or find employment.
6. The certificate of achievement is currently complex and very difficult to achieve for our students
7. The Enrollment is getting down for the last few years.
8. Program lack full time dedicated faculty.

Opportunities

1. Create a relationship with the collision repair program on campus
2. Promoting Leadership and Staff Development: There are opportunities for PMT in UAV and Aerospace prototyping fabrication and repair
3. The process to create new certificate programs has been simplified and is now faculty driven.
4. Ensuring Program Alignment by Promoting Partnerships: Fab Labs with low tech expertise may attract students
5. Support a technology based learning environment: Enhance prototyping capabilities
6. Dispose of obsolete equipment and replace it with state-of-the-art equipment

Threats

1. Local high school enrollments have decreased and are projected to continue their downward trend. A majority of PMT students are from local high schools, which has the potential of lower enrollments from this cohort group.
2. Plastic Manufacturing companies have left the state of CA in large numbers
3. The economy has been performing well with continued high employment. The decreased participation from the working adults has led to a dramatic decrease in their college attendance, particularly for evening classes.

4. Students entering the department are demonstrating a lack of basic and study skills, specifically with reading comprehension and math. They are under-prepared for college-level coursework.

Goals of the Program

Ref.	Goal	Action to be taken	Completion Date	Person assigned
	Short-term			
W8	Hire full time faculty	Provide Faculty Hiring Prioritization committee with application in Fall 2019.	Sept 2019	Miodrag Micic
W6	Create new certificate of achievements programs.	Process new certificate of achievements through the curriculum committee.	Fall 2019	Miodrag Micic
O3	Create Metal Injection Molding Course	Process new class through the curriculum committee.	Fall 2019	Miodrag Micic
S2	Get to know the industry trends	Join local trade shows and workshops (Plastic trade show, World Composite Expo., Mold makers Trade Fair, composite mfg show)	Fall 2019	David Li
S2	Establish activity for the students to know the local industry.	On-site Visits to the local plastic and composite company	Fall 2019	David Li
T1/ S2/ W5	To improve student's employability and to attract possible out-of-state students establish connection with out of state graduates currently working in plastics industry.	Establish plastics alumni program with out-of-state contacts	Fall 2019	Miodrag Micic
S3/ S5/ O6	Implement Design for Manufacturing (DFM)	The curriculum needs to be integrated with ENGT so that students learn how to design parts that can be fabricated. In unison,	Fall 2019	David Li

		students that start the learning process by fabricating need to learn how to design to get better wages.		
O4/ O6	Purchase electron microscope and vacuum processing equipment	Create surface microscale metrology lab by purchasing SEM microscope and vacuum accessories at PMT department which will serve ENGT, PMT, MTT and WELD departments for microscale inspections for future micro-scale engineering technology class	Fall 2020	Miodrag Micic
	Mid-range			
O3	Create microscopy inspection class	Process new certificate of achievements through the curriculum committee.	Fall 2020	Miodrag Micic
W4	Put all Faculty (P/T and F/T) courses on Canvas.	P/T faculty will put all of their courses on Canvas.	Fall 2020	Miodrag Micic
T1	Attend more local high school college fairs, regional advisory committee meetings, and high school class visitations..	Make at least four to five promotional visits to local high schools annually	Fall 2020	David Li
T1	Revise class scheduling.	Revise class scheduling to reduce low enrollment classes to match student available times.	Fall 2020	Miodrag Micic
W4	Prepare instructors to offer Distance Education courses.	Obtain training through CTX to become certified to teach Distance Education courses.	Fall 2020	Miodrag Micic
O2/ O3	Receive advanced Moldflow plastic flow Training.	Attend the advanced Moldflow training with Autodesk	Fall 2020	David Li
T1	Contact local high school with PLTW training courses to	Contact local high schools offering PLTW courses to explain the	Fall 2020	Miodrag Micic

	promote more students to enroll in Cerritos college	benefits of and coordinate student enrollments at Cerritos College.		
O6	Dispose of obsolete equipment and replace it with state of the art equipment	Contact local supplier to buy and replace	Fall 2020	Miodrag Micic
O2	Congress and conference visits by faculties	Attending SAMPE, AUVSI, MIM and SOLIDWORKS WORLD conferences	Fall 2021	Miodrag Micic
W3	Reinstate SAMPE student club and have students participate in SAMPE WING and SAMPE BRIDGE competition	Increase awareness of program within general student populations by re-instating composites and plastics related student clubs	Fall 2020	Miodrag Micic and David Li
O6	Purchase a BabyPlast molds for injection molding machine; plastics identification systems; NMR, FTIR, RAMAN, Ultrasounds and other inspection and metrology equipment	Purchase the equipment using available grants.	Fall 2021	Miodrag Micic
S2	Maintain contact with local plastic and composite company regarding local industry requirements and available onsite visits.	Faculty members will continue to reach out to educational advisors from local company.	Fall 2021	Miodrag Micic
O1	Create a relationship with the collision repair program on campus	Connect with the collision repair program to allow students to get a double competency	Fall 2022	Miodrag Micic
W4	Offer a Distance Education course.	Offer at least one Distance Education course.	Fall 2022	David Li
O3	Support a technology based learning	Focus the program on 3d printing and laser	Fall 2022	Miodrag Micic

	environment: Enhance prototyping capabilities	cutting based prototyping as many companies have left the state that were using manual labor. The need is today for technician that can provide limited number of prototypes.		
W2	Update the curriculum, course SLO,'s create PSLO's and align it with ISLO's	Need to bring the curriculum up to 2019 industry standards	Fall 2019	Miodrag Micic
W6	Streamline certifications to no more than 16-18 units and cross-list on curriculum appropriate ENGT and MTT classes	Need to increase students completion and graduation rate, and to align program with current industry needs and next 5 years local trends.	Fall 2019 to be submitted to Curriculum Review Committee	Miodrag Micic and Barrett Fitzgerald and David Li
W3	Increase enrollment of working professionals by offering new certificates for emerging industry needs:	Create two new certificates of achievements, Nanotechnology fabrication technician and Materials microscopy technician	Fall 2019 to be submitted to Curriculum Review Committee	Miodrag Micic

SLO

The program does not have full time faculty dedicated to it since retirement of Terry Price in 2016. All of the classes are provided by part time faculties. Only one part time faculty, Barrett Fitzgerald have done CSLO indirect assessment for classes he teaches. The CLSO's are very high, in the range of 80-100%, as all CSLO's are very tangible, and results in a physical product of processes taught at the program. We can say that students take their SLO's home with them. One of our goal for this year is to revise course and program SLO's and to align them with institutional SLO's. Starting from Spring 2018 one full time faculty, David Li is teaching at least one class in the department. We are going to ensure that moving forward all SLO's are timely evaluated. Attached below are examples of the CSLO evaluations:

	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
2018 FA	88	100.00%	0	0.00%	0	0.00%	0	0.00%	88	100.00%
2018 SP	112	87.50%	16	12.50%	0	0.00%	0	0.00%	128	100.00%
2017 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2017 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Totals CSLO's for PMT51: Composites Fabrications

Conclusion:

In the last two years, TECH department and its faculties have put great efforts to clean up the PMT department in terms of equipment and modernizing curriculums content. Moving forward we are looking for developing stackable and foldable certificates, with cross-listing of classes from ENGT, MTT and WMT departments. The students are highly sought after the industry. Within the Schoolyear 2019/2020 we intend to revise all courses and certificates and degrees curriculums, and adjust total credit hours, as per industry and skills attainment needs, and to reduce total student workload for earning certificate of achievements to no more than 16-18 units. The new certificates will be scalable and stackable. We will create two new Certificates of Achievements. "Nanotechnology and Nanofabrication Technician", and "Materials Microscopy Technician" certificates in anticipation of the growing industry needs, and Last year we have about 20 students hired by SpaceX, and about 15 hired by Northrop Grumman for composites manufacturing. The demand for composites and plastics technicians strongly outpaced the supply. We are planning internal outreach and outreach to local high schools to increase program enrollment and to increase number of composites technicians provided to the South Bay aerospace industries. Furthermore, we plan to reinstate the SAMPE (Society for Advanced Materials and Processes) student club, as we have a great support from local LA/OC SAMPE chapter and have students participates in international SAMPE WING and SAMPE BRIDGE competitions, as this will bring awareness to the program from general student population. As an immediate action item, we are going to submit before the end of this semester list of revised SLO's and to define the pSLO's and align them with iSLO's.

Appendix D: The Self-Checklist

Check	List
x	Course outlines have been reviewed within the last 3 years.
x	Courses that have not been offered over the last three years have been reviewed and are scheduled for inactivation.
x	Prerequisites/co-requisites have been reviewed to assure they are still necessary. Content review and/or statistical validation has been completed within the last 3 years. CTE course prerequisites need to be reviewed every 2 years.
x	Course outlines list current texts and Electronic Information Technology to comply with Board Policies and the law: Cerritos College BP & AP 3720,3411 and Section 508 standards (law).
IN PROGRESS	Course outlines list current SLOs.
x	Current course outlines have been submitted to the curriculum specialist in the Academic Affairs office.
N/A	Courses offered as distance education have been approved by the Curriculum Committee to be offered as DE and match the delivery methods outlined in the original proposals.
x	(If applicable) text outlines are available for faculty teaching a course for the first time.
x	Required courses for the degrees and certificates have been offered within the last 2 years.
x	Enough elective courses for the degrees and certificates have been offered within the last 2 years.
x	Degrees/certificates have been reviewed to identify any inactivated, deleted, or changed courses. If applicable, the program has been updated to reflect these changes.
x	All department courses are part of an approved degree or certificate.
x	Current degrees and certificates have been updated.
x	Students are completing the degrees and/or certificates. If not, the degree/certificate has been reviewed for change or inactivated.

Appendix E: The Annual Student Learning Outcome (SLO) Assessment Goals

As stated earlier due to previous faculty retirement and three years of part time only faculties and lack of the concurrent sections due to low enrollment, the comprehensive SLO data is not available. One part time faculty did voluntarily the class SLO evaluations, and results are very high. Its expected as the SLO's are directly tied to the tangible products, which the students manufacture in a class, and which they take home. The goal is to establish PSLO and align them with iSLO.s. The reports of the cSLO performed by Mike Fitzgerald are listed below.

PMT51 Composites Fabrications

Students will be able to identify (2) methods for fabricating a composite part during examination.

	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
2018 FA	22	100.00%	0	0.00%	0	0.00%	0	0.00%	22	100.00%
2018 SP	28	87.50%	4	12.50%	0	0.00%	0	0.00%	32	100.00%
2017 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2017 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	50	92.59%	4	7.41%	0	0.00%	0	0.00%	54	100.00%

Students will be able to describe safe handling procedures or composite fabrication during examination.

	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
2018 FA	22	100.00%	0	0.00%	0	0.00%	0	0.00%	22	100.00%
2018 SP	28	87.50%	4	12.50%	0	0.00%	0	0.00%	32	100.00%
2017 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2017 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	50	92.59%	4	7.41%	0	0.00%	0	0.00%	54	100.00%

Students will be able to distinguish between various composite reinforcement materials utilized in fabrication during examination.

	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
2018 FA	22	100.00%	0	0.00%	0	0.00%	0	0.00%	22	100.00%
2018 SP	28	87.50%	4	12.50%	0	0.00%	0	0.00%	32	100.00%
2017 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2017 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	50	92.59%	4	7.41%	0	0.00%	0	0.00%	54	100.00%

Students recognize composite structure materials utilized in fabrication during examination.

	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
2018 FA	22	100.00%	0	0.00%	0	0.00%	0	0.00%	22	100.00%
2018 SP	28	87.50%	4	12.50%	0	0.00%	0	0.00%	32	100.00%
2017 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2017 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	50	92.59%	4	7.41%	0	0.00%	0	0.00%	54	100.00%

Totals for CSLOs

	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
2018 FA	88	100.00%	0	0.00%	0	0.00%	0	0.00%	88	100.00%
2018 SP	112	87.50%	16	12.50%	0	0.00%	0	0.00%	128	100.00%
2017 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2017 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Totals for CSLOs

	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
2018 FA	88	100.00%	0	0.00%	0	0.00%	0	0.00%	88	100.00%
2018 SP	112	87.50%	16	12.50%	0	0.00%	0	0.00%	128	100.00%
2017 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2017 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2016 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

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	Good Performance		Satisfactory Performance		Emergent Performance		N/A		Total	
2016 SP	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015 FA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	200	92.59%	16	7.41%	0	0.00%	0	0.00%	216	100.00%

Cerritos College
Instructional Program Review Instructional Program Review
Checklist (Appendix G)

This form is completed by the IPR committee during the review of each program's self-study report presentation (Phase 4)

Name of the Program **Plastics Manufacturing Technology (PMT)**

Visitation Date **04/16/2019**

IPR Committee Liaison: **Angela Conley and Sunday Obazuaye**

Evaluation of Compliance with Institutional Requirements	Yes	No
All courses in the program have been reviewed by the Curriculum Committee within the last six year cycle?		
Program is in compliance with guidelines established by the Student Learning Outcomes task force?		
Institutional Data used is current as of the draft due date?		
Program and Primary Data included information which is less than 2 years old?		

The self-study report adequately addresses the following components:

Description of Component

Description of the Program	Yes	No
Course and program content		
Student demographics		
Human resources		
Instructional Improvement	Yes	No
Teaching effectiveness		
Activities to improve student learning		
Course grading		
Course and program completion		
Program outcomes		
Core indicators (if vocational)		
Student feedback		
Institutional data		
Other	Yes	No
Strengths and weaknesses of the program		
Opportunities and threats of the program		
Goals of the program		

Instructional Program Review Instructional Program Review Approval Form (Appendix H)

Committee Action taken:

Approved

Not Approved

Recommendations:

Program Review Chair _____

Explanation for non-approval:
