



CalPolyPomona

College of
Engineering

Department of Industrial and Manufacturing Engineering

The 2022-2027 Strategic Plan

Contact Information**Department of Industrial and Manufacturing Engineering**

Building 17, Room 2643

California State Polytechnic University, Pomona

3801 West Temple Avenue,

Pomona, CA 91768

Phone: 909-869-2555

Shokoufeh Mirzaei, Ph.D., Department Chair

smirzaei@cpp.edu

CONTENTS

Introduction.....	2
Strategic Plan Framework.....	3
A Framework for the Future: Focus Areas and Goals	5
FOCUS AREA: STUDENT FOCUS	6
Goal #1:.....	6
FOCUS AREA: COLLEGIALITY AND PROFESSIONALISM	6
Goal #2:.....	6
Goal #3:.....	6
FOCUS AREA: FACULTY AND STAFF SUPPORT AND DEVELOPMENT	6
Goal #4:.....	6
Goal #5:.....	6
FOCUS AREA: INDUSTRY RELATIONSHIPS	6
Goal #6:.....	6
Goal #7:.....	6
Strategic Plan Alignment with the College Plan	7
Strategic Planning Process	8
Acknowledgments.....	8

Introduction

The Department of Industrial and Manufacturing Engineering (IME) is one of seven exceptional departments within the College of Engineering (COE) at Cal Poly Pomona (CPP). IME prepares graduates for rewarding careers solving real life problems.

"I absolutely recommend a career in manufacturing. It's challenging, rewarding and the skills you exercise day in and day out prepare you to successfully take on complex problems. You learn to communicate and collaborate with people at all levels of the organization. You become comfortable in making decisions and using data to drive results."

- Veronica Braker
Vice President of Operations for Performance
Materials, BASF
Corporation

"The factory of the future will have only two employees, a man and a dog. The man will be there to feed the dog. The dog will be there to keep the man from touching the equipment."

- Warren Bennis
- American scholar, author, and organizational consultant

Shokoufeh Mirzaei, Ph.D., Department Chair
Department Chair and Professor

Strategic Plan Framework

The IME strategic planning team kicked off on February 16, 2021. It includes representatives from across the department who met many times over the course of spring and fall semesters. The team worked individually and together to evaluate stakeholder feedback, identify areas of focus, develop goals and strategies. Ultimately, this plan will guide the department direction in the coming years and ensure alignment with the college mission as well as the strategic initiatives of both the college and the university. An inclusive and collaborative process allowed the planning team to gain an understanding of the current situation and the desired future outcomes of their stakeholders. Focus groups and interviews were conducted with approximately 200 faculty, staff, students, alumni, and industry partners. In total, nearly 2,000 comments were analyzed to develop this plan.

The vision, mission, and values established as part of the College of Engineering strategic plan hold true for its departments and all members of the organization. Think of the College vision and mission as the North Star and a shared purpose. Departments within the college each have a unique role and responsibility to help make that vision reality. A strategic plan allows IME to better understand their role and purpose in fulfilling the COE's plan as well as how best to articulate what the college-wide core values mean for IME's decision-making and organizational interactions. Each department contributes to the vision and advances the goals in their unique way. A clear understanding of this alignment allows the department to then set clear, specific goals and management strategies needed to realize its strategic objective. The plan serves as the IME strategic objective from 2022 to 2027. The goals outlined in this plan define the desire to create a professional and supportive environment in the IME Department that fosters relationships with students, faculty, staff, and industry, and as to develop leaders who advance the IME programming and curriculum needed to produce first rate graduates.

The COE Vision

The Cal Poly Pomona College of Engineering's learn by doing education prepares engineers to transform imagination into reality.

The COE Mission

Prepare students for industry and advanced studies by implementing an inclusive polytechnic philosophy through collaborative teamwork, innovation, entrepreneurship and professional integrity.

IME Strategic Objective

Our graduates transform people's lives by designing and integrating efficient systems of people, information, materials, and equipment.

Core Values

Core values are the basis upon which we strategize, make decisions, and interact with each other and our stakeholders. The values of *People Centered, Collaborative, Forward-Thinking, Transparent, and Bold* represent what is important to the whole of the College of Engineering.

Core values need to be integrated into every interaction, process and function of organizations. IME has added desired behaviors to the college core value statements to demonstrate and reflect the local envisioned culture. These principles guide our internal conduct and external relationships to ensure we stay true to our strategic objective and provide a critical foundation for developing the goals and strategies necessary to achieve our desired outcome.

People Centered

“We invest in people and celebrate success.”

IME Desired Behavior(s)

Recognize other’s needs, wants, values and uniqueness, to better support one another.

Recognize our students, faculty and staff for their accomplishments and success.

Make time for others.

Maintain a family atmosphere.

Collaborative

“We create an environment of collegiality, ownership, and engagement.”

IME Desired Behavior(s)

Leverage our strengths to create better results.

Be open-minded.

Be responsive and timely.

Treat everyone with respect.

Practice active listening and deeper inquiry skills.

Forward-Thinking

“We strive to be proactive, creative, and innovative.”

IME Desired Behavior(s)

Explore new ideas and alternative perspectives.

Adopt an agile mindset.

Set aside time to dream.

Transparent

“We are committed to maintaining an environment of open, honest, and inclusive communication.”

IME Desired Behavior(s)

Cultivate a resource sharing environment.

Modeling expectations about roles and responsibilities within the department.

Provide timely and accurate communication.

Foster an inclusive decision-making environment.

Bold

We value grit, innovation, risk-taking, and learning from challenges.

IME Desired Behavior(s)

Support an environment where it is safe to fail in order to learn.
Help one another build self-confidence.
Encourage responsible risk taking.

A Framework for the Future: Focus Areas and Goals

The focus areas and goals described in this section address existing and developing issues, challenges, and opportunities that we have identified as most important to the current and future vitality of education. These goals resulted from a thorough analysis of department practices, opportunities, challenges, and organizational member values, including faculty, staff and student input.

Each focus area is supported by one or more goals and a number of strategies which in turn are supported by planned actions. Goal statements are deliberately written to define the intended accomplishments or conditions. In this way, organizations create a clear roadmap to success and establish the framework to get there. Detailed operational plans will be developed and implemented annually in support of the goals outlined here.

Goal #1:

The IME Department is known for developing first-rate graduates.

Goal #2:

The IME Department is a safe environment for productive communication and healthy relationships across the department.

Goal #3:

The IME Department fosters a culture of professionalism.

Goal #4:

The IME Department supports faculty to realize their full potential in cutting edge activities and teaching goals.

Goal #5:

The IME Department develops faculty and staff to become the next generation of leaders.

Goal #6:

The IME department nurtures deep connections with industry that provide opportunities for students, faculty, and industry.

Goal #7:

The MFE and IE curriculum aligns with emerging and leading-edge industry trends.

FOCUS AREA: STUDENT FOCUS

Goal #1:

The IME Department is known for developing first rate graduates.

PRIORITY STRATEGIES	
1.1	Improve course scheduling to ensure timely graduation for students.
1.7	Connect recruiting outreach efforts across STEM colleges and high schools to give students the opportunity to understand what IME careers offer.

FOCUS AREA: COLLEGIALITY AND PROFESSIONALISM

Goal #2:

The IME Department is a safe environment for productive communication and healthy relationships across the department.

PRIORITY STRATEGIES	
2.1	Create consistent opportunities for faculty and students to build relationships both face-to-face and virtually.

Goal #3:

The IME Department fosters a culture of professionalism.

PRIORITY STRATEGIES	
3.2	Improve communication and transparency throughout the department.

FOCUS AREA: FACULTY AND STAFF SUPPORT AND DEVELOPMENT

Goal #4:

The IME Department supports faculty to realize their full potential in cutting edge activities and teaching goals.

PRIORITY STRATEGIES	
4.3	Revise course scheduling practices to provide faculty greater opportunities for scholarly work and collaboration.

Goal #5:

The IME Department develops faculty and staff to become the next generation of leaders.

PRIORITY STRATEGIES	
5.1	Involve faculty in the decision-making process and the IME Department functions.

FOCUS AREA: INDUSTRY RELATIONSHIPS

Goal #6:

The IME department nurtures deep connections with industry that provide opportunities for students, faculty and industry.

PRIORITY STRATEGIES	
6.3	Expand and increase engagement of the Industry Advisory Council.
6.4	Stimulate greater industry engagement in supporting faculty research, grants, projects, and networking opportunities.

Goal #7:

The MFE and IE curriculum aligns with emerging and leading-edge industry trends.

Strategic Plan Alignment with the College Plan

IME Strategic Plan	COE Strategic Plan Focus Areas
<p>FOCUS AREA: STUDENT FOCUS</p> <p>Goal #1 The IME Department is known for developing first rate graduates.</p>	<p>FOCUS AREA: STUDENT SUCCESS</p>
<p>FOCUS AREA: COLLEGIALITY AND PROFESSIONALISM</p> <p>Goal #2: The IME Department is a safe environment for productive communication and healthy relationships across the department. Goal #3: The IME Department fosters a culture of professionalism.</p>	<p>FOCUS AREA: CULTURE</p>
<p>FOCUS AREA: FACULTY AND STAFF SUPPORT AND DEVELOPMENT</p> <p>Goal #4: The IME Department supports faculty to realize their full potential in cutting edge activities and teaching goals. Goal #5: The IME Department develops faculty and staff to become the next generation of leaders.</p>	<p>FOCUS AREA: FACULTY AND STAFF EXCELLENCE</p>
<p>FOCUS AREA:</p>	<p>FOCUS AREA: EXPERIENTIAL LEARNING</p>
<p>FOCUS AREA:</p>	<p>FOCUS AREA: RESOURCE DEVELOPMENT AND EXCELLENCE</p>
<p>FOCUS AREA: INDUSTRY RELATIONSHIPS</p> <p>Goal #6: The IME department nurtures deep connections with industry that provide opportunities for students, faculty, and industry. Goal #7: The MFE and IE curriculum aligns with emerging and leading-edge industry trends.</p>	<p>FOCUS AREA: STRATEGIC PARTNERSHIPS AND INDUSTRY ENGAGEMENT</p>

Strategic Planning Process

On February 16, 2021 the Department of Industrial and Manufacturing Engineering strategic planning team began its work to conduct an inclusive and collaborative process that will ultimately guide the department direction in the coming years and ensure alignment with the strategic initiatives of the college and the university. The core team followed a Strategic Directioning framework and the Organizations of Character Model™¹ to ensure a comprehensive work product that addressed planning needs as well as successful plan implementation.

Following describes the processes and decisions the team used during development of this plan.

1. Agree to project scope and timeline recognizing work will be online with shorter duration meetings due to the COVID-19 pandemic.
2. Initialize understanding of the “current situation”.
 - Identify key stakeholders: IME Faculty, Staff, Students, Alumni, and Industrial advisory board
 - Gather a variety of stakeholder input through one-to-one virtual interviews and focus groups.
 - i. Each group was asked the same questions to understand what key indicators represent IME’s future success, behaviors that are working and behaviors that are not working, and what groups need most from IME.
3. Claim the future by discussing important goals, feedback and what success looks like.
 - Analyze and identify themes from all information received.
 - In context of the COE vision and mission, identify the IME strategic objective.
 - i. The strategic objective is the long-term desired condition or change resulting from departmental work and programs. It is what makes the department different and why it matters to the COE.
 - Identify goals and strategies to further the department strategic objective and the COE vision and mission.
 - Prioritize Year 1 strategies.
4. Provide opportunity for stakeholder feedback to the draft plan.
5. Finalize strategic plan.

Acknowledgments

We owe enormous thanks to the many individuals who volunteered their opinions, shared their knowledge, participated in surveys or interviews, donated their time and helped develop this plan. Thank you to our students for their honest and constructive feedback. Finally, thank you Dean Baski for her generous support of the IME Strategic Planning Team.

Shokoufeh Mirzaei
Nicole Wagner (Spring 2021)
Ellips Masehian
Victor Okhuysen (Fall 2021)
Alan Fuchs (Fall 2021)

Saeideh Fallah-Fini
Greg Placencia
Kamran Abedini
Dika Handayani (Fall 2021)

¹ The Organizations of Character Model® can be found on the K2OHSolution website <https://www.k2ohsolutions.com/organizational-development/>