

MESA, celebrating its 40th anniversary in 2009/2010, has a proven track record in producing math-based graduates by providing elements such as classes, hands-on competitions, counseling, transfer support and a community environment to students from middle school through four-year college.

INDUSTRY ADVISORY BOARD HANDBOOK

Contact Information:

San Diego MESA Alliance - <http://alliance.sdccmesa.com/>

University Level:

Theresa M. Garcia, Director
MESA Engineering Program (MEP)
SDSU College of Engineering
(619) 594-5679
tgarcia@mail.sdsu.edu

Community College Level:

Rafael Alvarez, Director
MESA Community College Program
San Diego City College
(619) 388-3202
ralvarez@sdccd.net

Dr. Raga Bakhiet, Director
MESA Community College Program
Southwestern College
(619) 482-6381
rbakhiet@swccd.edu

Pre-College Level:

Donna Goyer, Director
MESA Schools Program (MSP)
SDSU College of Engineering
(619) 594-0299
dgoyer@projects.sdsu.edu

Jeanette Ramos Espino
MESA Schools Program (MSP)
SDSU College of Engineering
(760) 353-2860 x21
jramos@ecescd.org

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PROFILE

The San Diego MESA Alliance (SDMA) is a statewide model for effective collaboration between regional MESA Programs. The SDMA creates a supported pipeline from pre-college, through community college, university and ultimately the technical workforce.

SDMA's members represent several divisions of the California MESA program. One of the country's most successful programs of its kind, Mathematics, Engineering, Science Achievement (MESA) provides academic support for thousands of educationally disadvantaged students to excel in math and science and graduate with baccalaureate degrees in science, engineering, computer science and other math-based fields.

MESA has been named one of the most innovative public programs in the nation by Innovations in American Government, a project of the Kennedy School of Government at Harvard University, and the Ford Foundation. MESA also is a winner of the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring.

The SDMA boasts a vital membership of 5 sister programs from three California MESA educational divisions:

- MESA Schools Program (MSP)– San Diego
- MESA Schools Program (MSP)– Imperial Valley
- MESA Community College Program (MCCP) - San Diego City College
- MESA Community College Program (MCCP) – Southwestern College
- MESA Engineering Program (MEP)– San Diego State University

Average Enrollment by Program
SDSU MSP - 550
Imperial Valley MSP - 800
San Diego City College MESA - 200
Southwestern College MESA - 150
SDSU MEP - 250

The Mission is to improve collaborative efforts toward the enhancement of the K-16 pipeline for the MESA Programs in San Diego County; ultimately graduating students in the fields of engineering, mathematics, and sciences at the community college and university levels.

The SDMA goals are to establish best practices, strategic partnerships, effective coordination of services, and development of core curriculum for MESA Programs.

Collaboration is the operational theme. Member programs share in the planning of events and services for the benefit of students and industry partners. From its inception, the SDMA has enhanced the effectiveness of each member program and strengthened the MESA pipeline. Joint events are the norm, rather than the exception, including academic excellence workshop facilitator training, university transfer days, mentoring, tutoring, recruitment, outreach, industry nights, career fairs, and grant writing.

Imperial Valley MSP, SDSU MSP, San Diego City College and Southwestern College MESA Programs are funded by Statewide MESA through the University of California and the California Community College Chancellor's Office. San Diego State University MEP is funded partially by the SDSU College of Engineering and local industry contributions.

SDMA enjoys strong support from industry because they not only recognize MESA's success in producing technical professionals needed by industry to stay competitive (in San Diego) but also because they see the collaborative efforts which produce alumni that continues to support the San Diego region. Corporations such as Sony, Hamilton Sundstrand, Northrop Grumman, Rick Engineering, Infrastructure Engineering Corporation and Sempra Energy have provided funding, in-kind contributions, scholarships, and internships to assist SDMA students. Corporate representatives serve on the SDMA Advisory Board.

Contact Information:

MESA Schools Program-Imperial Valley: Jeanette Espino 760 353-2860 X 21
 MESA Schools Program-San Diego: Donna Goyer 619-594-0299
 MESA Community College Program-San Diego City College: Rafael Alvarez, 619-388-3393
 MESA Community College Program-Southwestern College: Raga Bakhiet, PhD 619-482-6381
 MESA Engineering Program-SDSU: Theresa M. Garcia 619-594-5679



Part 1

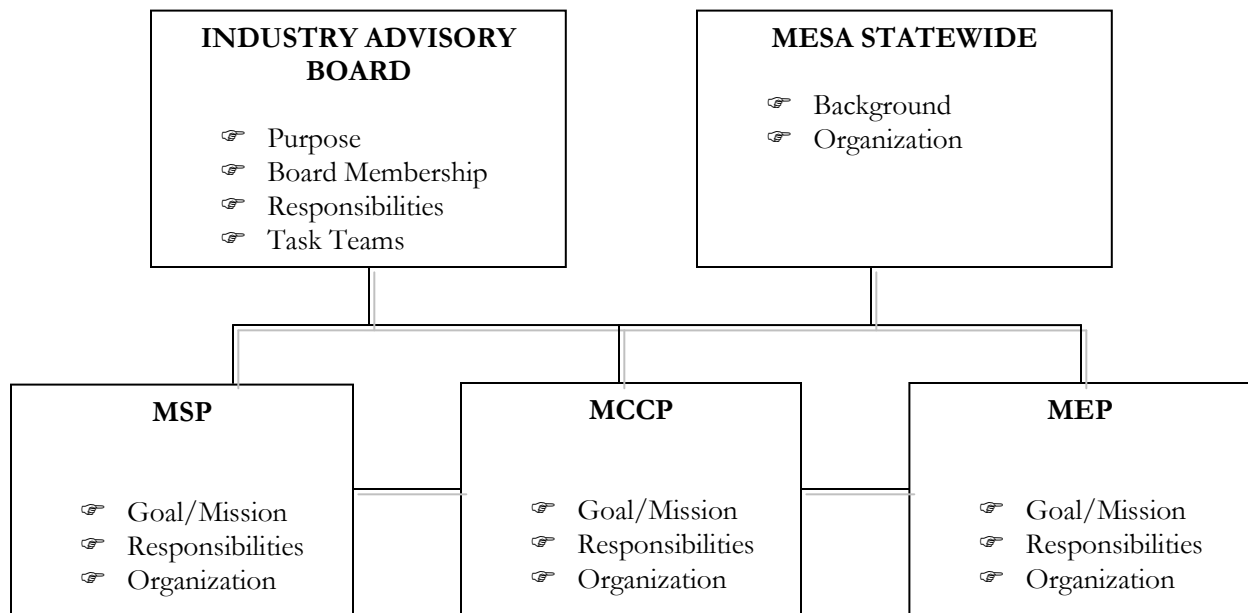
INDUSTRY ADVISORY BOARD (IAB)



INDUSTRY ADVISORY BOARD (IAB)

The following information is provided to assist you in becoming more familiar with the history, activities, and goals of the MESA (Mathematics, Engineering, and Science Achievement) programs in San Diego and Imperial Valley. Our objective is to enhance students' ability to achieve a high level of success in their academic pursuits, thus increasing the number of students who obtain degrees in engineering, science and math based fields. All divisions of MESA (MESA Schools Program (MSP) serving pre-college students, MESA Community College Program (MCCP) serving community college students, and MESA Engineering Program (MEP) serving university level students) serve socio-economically and educationally disadvantaged students. These students will be the major work force for future industry. Therefore, industry participation is extremely important and beneficial to both students and industry.

In this handbook, you will find descriptions of board member responsibilities, MESA Statewide background and MESA Programs' history and activities.



PURPOSE AND BOARD MEMBERSHIP

PURPOSE

- ✓ The purpose of the SDSU MESA Alliance Industry Advisory Board (IAB) is to:
 1. Support the goals of the MESA Programs (see description of goals in MSP, MCCP, and MEP sections).
 2. Provide technical guidance and direction in developing activities and programs to better prepare students for professions in STEM (science, technology, engineering and mathematics) fields.
 3. Provide appropriate professional and/or financial support to ensure the continuation and further development of the program.

BOARD MEMBERSHIP

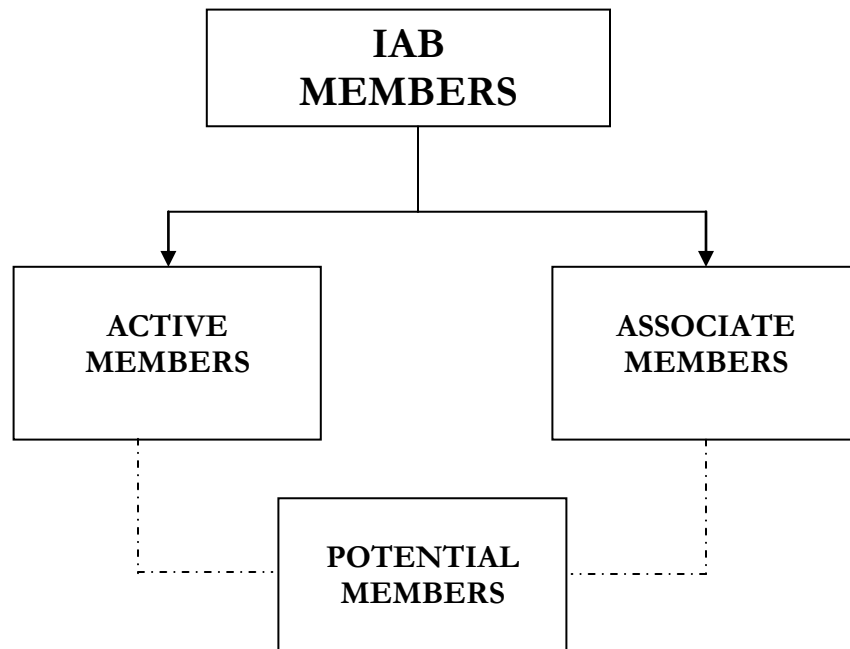
- ✓ The San Diego MESA Alliance (SDMA) Industry Advisory Board, hereafter referred to as the IAB, was established in 1980 as the SDSU MEP/MESA IAB. With the growth of MESA Programs in San Diego and Imperial Valley since the late 1990s and the establishment of the alliance among MESA Programs in the region, the IAB has also expanded to serve all MESA Programs. The IAB consists of:
 1. Local industry representatives from engineering and science oriented companies that have demonstrated a concern for the promotion of underserved and where applicable by law underrepresented workforce in engineering and science fields.
 2. Campus administrators and faculty members interested in seeing more underrepresented students participate in practical experiments and industrial research related to engineering.
 3. Professional organizations such as National Society of Black Engineers (NSBE), Pacific Asian Society of Engineers (PASE), and Society of Hispanic Professional Engineers (SHPE) that have similar goals to increase diversity in STEM fields.

The IAB has supported the MESA goal of increasing the numbers of underrepresented students in technical disciplines. Participation on the IAB is not limited to the above-mentioned groups. The IAB is open to any person, group, or organization that agrees with and will actively support the goals of MESA.

IAB Members may participate in MESA through the categories listed below:

- a. **Active** members from industry consisting of company representatives who attend IAB meetings regularly, participate in one or more working task forces, and/or participate in any MESA events, including making monetary contributions. This group also includes MESA staff and student organization representatives.

- b. **Associate** members consisting of representatives from local or national companies, representatives from community organizations, and individuals who support the goals of MESA but cannot actively participate in any working task forces or attend the IAB meetings at the present time. Members of this group will receive bi-monthly meeting minutes at the same time that they are sent to active members.
- c. **Potential** members from industry consisting of company representatives who have not yet participated in any MEP/MESA events or committees but would like to be included on the mailing list.



MEMBER RESPONSIBILITIES

- ✓ The IAB Shall:
 1. Advise and provide a corporate perspective to the SDMA.
 2. Develop and sponsor programs and activities that promote academic success and professional development.
 3. Identify or provide sources of support for the SDMA.
 4. Provide forum for discussion of issues that affect the success of MESA students.

Expectations of IAB Members Include:

A. Provide Participation

1. Reinforce the concept of a working board through attendance of regularly scheduled Advisory Board meetings which meet every other month (February, April, June, August, October, and December).
2. Actively participate in at least one task force per year.
3. Provide support for professional development areas.

4. Solicit volunteer support for company representatives in SDMA related activities such as Shadow Day, Career Days, Jr. MESA Day, Awards Banquets, Resume Writing/Mock Interview Seminars, Company Tours and Guest Speakers, etc.
5. Assist students in obtaining scholarships, internships, technical part-time positions, and/or summer employment.

B. Provide Financial Support

1. Member companies are encouraged to sponsor a table at MESA end of the year banquet(s).
2. Member companies are encouraged to donate to the scholarship funds for any MESA program(s).
3. Member companies are encouraged to donate other resources in support of MESA activities (printing, mailing, meeting sites, company tours, equipment, etc.)
4. Assist the SDMA in locating funding sources.
5. Assist individual MESA Programs in attaining their fundraising goals by encouraging support from one's company. This can be done by personal efforts and/or by providing key contact information.

BOARD POSITIONS

CHAIRPERSON

PURPOSE

- ✓ The Chairperson represents the SDMA or individual MESA Programs as well as the IAB and acts as a liaison between Industry, MESA program and respective campuses.

RESPONSIBILITIES

- ✓ Plan and coordinate the IAB meetings to assure that the program goals are met:
 1. Secure a meeting place.
 2. Conduct meetings.
 3. Represent the board at SDMA functions and meetings.
 4. Remain in position for a one-year term with the possibility of a one-year extension.

VICE CHAIRPERSON

PURPOSE

- ✓ The Vice Chairperson of this board will take over the Chairperson's duties when that individual is unable to fulfill his or her duties. The Vice Chairperson will also be encouraged to replace the Chairperson upon completion of term.

RESPONSIBILITIES

1. Conduct IAB meetings.
2. Represent the Board at MEP/MESA functions and meetings.
3. Remain in position for a one year term with the possibility of a one year extension.

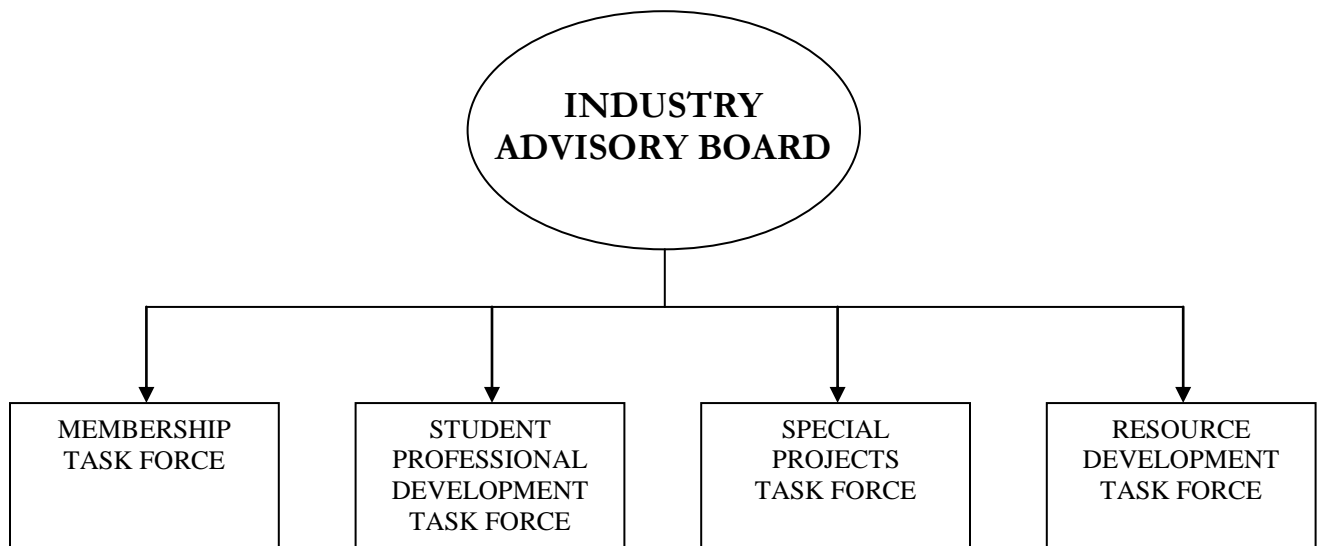
SECRETARY

PURPOSE

- ✓ The Secretary of this board will provide accurate accounts of the communication and discussion which takes place at board meetings and provide necessary information to MESA Staff and board members.

RESPONSIBILITIES

1. A pre-designated MESA staff person will assume this position. In lieu of a MESA staff person, IAB members may rotate as secretary for each meeting.
2. Assure notes of each meeting are recorded, transcribed, and mailed to members before the next scheduled meeting.
3. Provide Membership Task Force Chairperson with agenda and map three weeks before the scheduled meeting.
4. Assist Membership Task Force in updating the SDMA Industry database.



TASK FORCES

COMPONENTS

- ✓ Each IAB Member will participate in one or more of the following task forces:
 1. Membership
 2. Student Professional Development
 3. Special Projects
 4. Resource Development

STRUCTURE

- ✓ Each task force is formed by the first meeting of the school year and is assessed and re-evaluated as needed.

- ✓ Each task force will elect a chair who will be responsible for:
 1. Organizing task force meetings.
 2. Identifying projects for task force members.
 3. Seeking solutions to problems.
 4. Reporting the committee's activities, achievements, concerns and results to the IAB at every meeting.

MEMBERSHIP TASK FORCE

PURPOSE

- ✓ Develop and maintain active membership on the SDMA Industry Advisory Board. (The Secretary must be a member of this task force).

RESPONSIBILITIES

1. Contact individuals who have not attended recent meetings and clarify their involvement.
2. Maintain contact with heads of task forces to provide support. Assign new and inactive members to task forces.
3. Mail out meeting agendas, minutes, IAB Handbook, and Bylaws to new members.
4. Create opportunities for identifying and developing new members.
5. Maintain and update the IAB roster through periodic phone calls to all organizations listed.

STUDENT PROFESSIONAL DEVELOPMENT TASK FORCE

PURPOSE

- ✓ Prepare MESA students professionally to enter the engineering and science workforce.

- ✓ Provide a resource of employment opportunities for MESA students that include: summer, part-time co-op/internships, and full-time employment.

RESPONSIBILITIES

1. Recognize students who have participated in IAB sponsored events.
2. Provide company employment information as a resource to students.

3. Generate surveys and lobby local companies to provide job opportunities and employment information.
4. Promote and obtain commitments for internships from local companies especially those companies represented on the IAB.
5. Provide input and feedback to MESA staff in task force sponsored events such as: Shadow Day, Resume/Interview Seminar, Career Fair(s), and Career Day(s).

SPECIAL PROJECTS TASK FORCE

PURPOSE

- ✓ Plan and organize the special projects designated by the IAB (i.e. Mentor Program for new incoming MESA students, MEP/MESA Awards Banquet(s), etc.).

RESPONSIBILITIES

1. Plan and organize specified projects.
2. Encourage other IAB members to participate in the projects.
3. Promote the involvement of the community organizations as well as local and national companies.

FUNDRAISING TASK FORCE

PURPOSE

- ✓ Plan and organize special resource development projects such as fundraising events and volunteer drives in an effort to supplement additional revenues for the MESA Programs.

RESPONSIBILITIES

1. Plan and organize the projects
2. Encourage other IAB members to develop and participate in these activities.
3. Promote the involvement of the community, industry, university, and students in each event.

The Industry Advisory Board in its inception in 1980 was primarily an MSP Industry Advisory Board, but through the years, the IAB has served as an MEP & MSP board. Currently, the IAB is proactive in SDMA activities in all three divisions of MESA. The IAB is chaired by and directed by a body of more than 20 corporate and government agency representatives.

Part 2:

MESA STATEWIDE

University of California,
Office of the President



MESA STATEWIDE



What Is MESA Statewide?

BACKGROUND

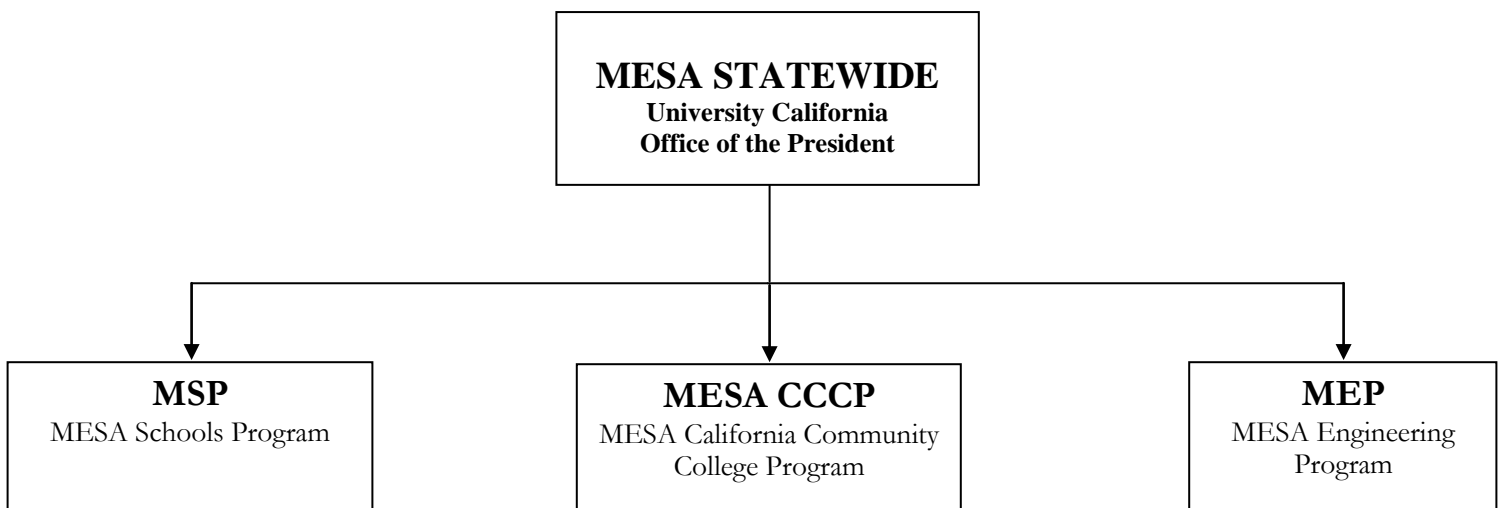
Mathematics, Engineering, Science Achievement (MESA) is nationally recognized for its innovative and effective academic development program. MESA engages thousands of educationally disadvantaged students to excel in math and science and graduate with math-based degrees. MESA partners with all segments of California higher education as well as K-12 institutions.

MESA, celebrating its 40th anniversary in 2009, has a proven track record in producing math-based graduates by providing elements such as classes, hands-on competitions, counseling, transfer support and a community environment to students from middle school through four-year college. Through MESA, students develop academic and leadership skills, increase educational performance, and gain confidence in their ability to compete professionally. MESA has particular interest in and focuses on students from those groups who historically have had the lowest levels of attainment to four-year and graduate level programs.

By closing this achievement gap, MESA students and graduates will be better able to make significant contributions to the socioeconomic well-being of their families and their communities. To the extent possible by California law, MESA emphasizes participation by students from groups with low eligibility rates for four-year institutions. MESA is administered by the University of California. MESA, an intersegmental program, is funded by the state legislature, corporate contributions and grants.

ORGANIZATION

MESA Statewide has three components:



1. **MESA Schools Program (MSP)** - supports pre-college students interested in mathematics and science.
2. **MESA Community College Program (MCCP)** - serves community college students who want to transfer to four-year institutions and graduate in mathematics based fields.
3. **MESA Engineering Program (MEP)** assists university level students at UC, CSU and independent institutions who are majoring in engineering, computer science or other math-based majors.

MESA has created a strong partnership between staff, advisors (committed science and mathematics teachers), school district officials, university professors and administrators, parents, and industry supporters. Because companies recognize MESA's ability to produce highly qualified professionals, industry involvement is especially strong in assisting MESA to prepare tomorrow's workforce.

For more information regarding the California MESA Program or MESA USA (the MESA MSP model has been duplicated in eight other states across the nation) please visit: <http://mesa.ucop.edu/>

Part 3:

MESA ENGINEERING PROGRAM (MEP)



SAN DIEGO STATE
UNIVERSITY

MESA ENGINEERING PROGRAM (MEP)

I. GOAL/MISSION

- ✓ The MESA Engineering Program is designed to recruit, retain and graduate students in the rigorous technical disciplines of engineering and science. MESA serves educationally disadvantaged students to the extent possible by law; emphasizing participation by students from groups with low rates of eligibility for four-year colleges.
- ✓ Our goal is to provide an environment and a support system with the SDSU College of Engineering to graduate qualified engineers with marketable skills for industry and/or graduate school and to prepare each individual for lifelong learning beyond SDSU.

II. RESPONSIBILITIES

- ✓ The responsibilities of the MESA Engineering Program can be broken down into eight components:

A. RECRUITMENT

1. Work with the SDSU Student Outreach Services to assist with college fairs and other appropriate cooperative activities.
2. Assist the College of Engineering Student Affairs office with intensive recruitment process.
3. Continue visits with MESA high schools, junior college, and any other schools that may request visits.
4. Provide students who are admitted to SDSU in Engineering with information about the MEP program, financial assistance, required courses, test information, academic workshops, freshman orientation class, etc.
5. Host an Open House prior to the Fall semester to inform potential students and their parents about the program and advise the students of what classes to take.

B. MATRICULATION

1. Cluster students in selected math, science, and engineering courses to promote group study and ensure that all students have the same professor to decrease feelings of isolation.
2. Provide academic excellence workshops for math, science and lower division engineering courses.
3. Provide new incoming freshmen and transfers with an orientation class. Topics covered are: Time management, study skills, familiarization with the university and the various departments and policies, team projects, company tours, guest speakers, etc.

C. STUDENT STUDY CENTER

1. Provide and maintain MEP study center.
2. Provide reference books, notes, company information, and problem solving material.

3. Provide computers and printers for schoolwork.

D. COUNSELING - ACADEMIC/PERSONAL

1. Arrange to have a section of each target class designated for MEP student enrollment.
2. Prepare and distribute list of recommended professors for potential workshops.
3. Advise freshmen and sophomores at least once a semester in course scheduling.
4. Track student performance, class sections, and grades.
5. Provide personal counseling as needed or direct students to campus counseling center.

E. STUDENT ORGANIZATIONS

1. Meet with officers of appropriate student organizations to familiarize them with MEP and enlist their support in encouraging students to become involved in the program.
2. Provide contact with industry.
3. Support the National Society of Black Engineers (NSBE), the Society of Hispanic Professional Engineers (SHPE) and the Pacific Asian Society of Engineers (PASE).

F. ACADEMIC EXCELLENCE WORKSHOPS

1. Hire and train workshop facilitators for each target class. (Current MEP students are first choice).
2. Set up workshop schedule, classrooms and assign facilitators.
3. Distribute and post workshop schedules.
4. Conduct one on one tutoring of floating times as needed and as budget permits.

G. CAREER DEVELOPMENT

1. Host an annual MEP Career Fair in the Spring Semester to try to place MEP students in full-time or part-time co-op/internship positions.
2. Create and facilitate professional development activities.

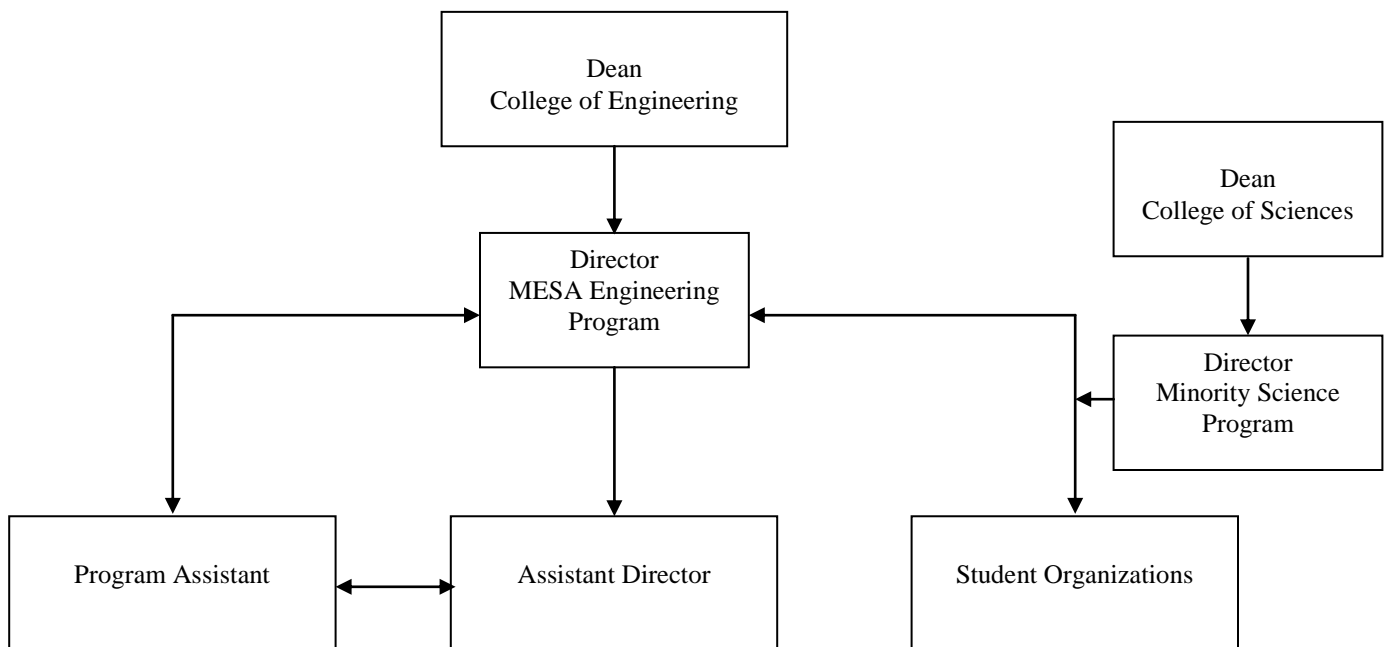
H. SCHOLARSHIPS

1. Make information on MEP and other scholarship funds available to all MEP interested and eligible students.

III. ORGANIZATION: HISTORY AND STRUCTURE

- ✓ The MEP program is a division of MESA Statewide and is geared primarily towards college students. The MEP program was established on the SDSU campus in 1982. The need to increase the number of underrepresented students graduating with degrees in engineering and science was great. Our goal is to provide an environment and a support system with the SDSU College of Engineering to graduate qualified engineers with marketable skills for industry and/or graduate school and to prepare each individual for lifelong learning beyond SDSU. To meet our goals MEP creates and facilitates excellent programs, services and activities from personal growth to professional development in order to foster the overall success of each student.

- ✓ Over 12% of the nation's underrepresented engineers are MESA alumni. Nationally, one in eight underrepresented minority-engineering graduates is a product of a MEP school. Of this, some 90% of California's baccalaureate recipients from underrepresented groups are MESA Engineering Program graduates. There are 23 California Universities with MEP programs. Although this is a tremendous accomplishment for MESA, the nation, including California, produces less than half of the engineers needed worldwide. In California the largest and fastest growing college - age population is students of "color". MESA's outreach efforts will encourage these students to pursue technical careers.
- ✓ In 1991, the Minority Science Program (MSP) was established to better serve computer science majors housed in the College of Sciences. Generally, on other UC and CSU campuses computer science majors are housed in the College of Engineering. In addition other Physical Science majors are served via Minority Science Program.
- ✓ Under the umbrella of SDSU MEP, we work closely with several engineering student organizations, namely NSBE, PASE and SHPE. These organizations share similar missions with MEP. Therefore, increasing the effort to reach our objective of graduating successful engineers.
- ✓ MEP is a collaborative effort supported by corporations, foundations, and matching university funds from the State of California. It is imperative that the technical industry remains partners with MESA. Through this partnership we will develop and graduate more qualified engineers and scientists. On occasion, federal grants also support components.



Part 4:

MESA COMMUNITY COLLEGE PROGRAM



MESA COMMUNITY COLLEGE PROGRAM (MCCP)

I. GOAL/MISSION

- ✓ MCCP provides science, technology, engineering and math (STEM) academic development to educationally disadvantaged community college students so they excel academically and transfer to four year institutions as STEM majors. This support is especially crucial to graduates from low-performing high schools so they can reach their higher education potential. MCCP is supported by industry so students can learn firsthand about career options, special scholarships and internships. MCCP is a partnership between MESA and the California Community Colleges Chancellor's Office. California's MCCP has served as a model for an HP initiative to replicate the program in other states.

II. RESPONSIBILITIES/COMPONENTS

- ✓ Main components of the MCCP include:
 - A. **Academic Excellence Workshops.** Students are scheduled in the same core math and science classes and taught how to successfully master complex technical ideas and principles through a collaborative approach.
 - B. **Orientation course.** First-year students learn skills to excel academically in college as math, science and engineering majors.
 - C. **Assistance in the transfer process.** MESA provides academic counseling, visits to four-year institutions, and workshops to assist students to transfer.
 - D. **Career advising.** Students are exposed to different math, engineering and science career options through contacts with industry mentors, job shadowing, career fairs and internship opportunities.
 - E. **Links with student and professional organizations.** These resources provide mentors, guest speakers and industry field trips.
 - F. **Student Study Center.** This multipurpose center is the hub for study and special activities.
 - G. **Professional development.** Through workshops and mock job fairs, students learn about corporate culture, improve their resume writing and interviewing skills and are offered opportunities for part-time, full-time and summer employment in industry.
 - H. **Industry Advisory Board.** Corporate representatives, including MESA alumni, participate on advisory boards to provide strategic planning assistance, scholarships, summer internships, field trips and other resources. The board is a valuable connection between the students and companies that recognize MESA's success in helping to develop technical professionals.

III. ORGANIZATION HISTORY

The MESA Community College Program is a division of MESA Statewide and is geared towards community college students. The MCCP was established at Southwestern College in the mid 1990s and at San Diego City College in the late 1990s.

Part 5:

MESA SCHOOLS PROGRAM (MSP)



San Diego & Imperial Counties

MESA
MATHEMATICS ENGINEERING SCIENCE ACHIEVEMENT

I. GOAL/MISSION

- ✓ To develop (at the Junior and Senior High level) academic and leadership skills, raise educational expectations, and instill confidence in educationally disadvantaged students in engineering, physical science or other related math-based fields, in order to increase the number who enter a four year university.

II. Components

- ✓ The main components of the MESA pre-college program include the following:

A. MESA Day Academies

Students follow MESA-developed curriculum that reinforce California State Math and Science Standards to build hand-on projects. Students enter these projects in rigorous local competitions. Top winners advance to regional and in some instances, national competitions. The Academy projects are highly effective demonstrations of the theory and practice of math and science.

B. MESA Period or after School Meetings

Teachers called MESA Advisors, establish a designated time during or after school day to day to concentrate on the MESA curriculum which is aligned with the California State Standards.

C. High School Senior Preparation

Seniors receive important opportunities to prepare for their University Applications, ACT/SAT Testing and Scholarships and Financial Aid.

D. Career and College Exploration

Guest Speakers, field trips and group activities show students a wide variety of college and career opportunities.

E. Parent Involvement

Parents are empowered and educated to become more effective advocates for their students.

III. ORGANIZATION HISTORY

The MESA Schools Program is a division of MESA Statewide and is geared towards pre-college students. The MESA program was established in Imperial Valley in 2003 and re-established in San Diego at the SDSU campus in 2006. The goal of MESA Pre-College is to encourage students to take challenging math and science courses in high school, preparing them to go on to college and to declare a STEM based major.

APPENDIX - 1

Ways Industry Can Participate

San Diego MESA Alliance (SDMA) Industry Advisory Board

Ongoing

The SDMA Industry Advisory Board (IAB) provides industry exposure and professional development opportunities for MESA students. Industry partners contribute to the development of a diverse pipeline of future engineers and scientists.

Scholarships

Ongoing

Industry supports students with scholarship donations to assist in meeting students' financial needs. Scholarships donated by industry are presented during various MESA program receptions.

Pre-College Activities

Ongoing

Work with MSP directors to support pre-college students with various activities from classroom speakers to judging MESA Day Competitions to mentoring/tutoring.

Mentorship Program

Open Recruitment

Exposes students, who are likely to be first generation college students, to various fields in engineering and science. Mentors share valuable experiences and gain potential student interns and/or post-graduate employees. Mentors strengthen community-corporate ties. By participating in the program, students gain exposure to their perspective fields and develop friendships with industry in the process.

Joint Professional Development Conference

Annually in October

This is a mini 'Career Fair' consisting of industry booths in the fields of engineering and physical sciences. Professional Seminars or 'Speed Networking' is also presented by industry representatives simultaneously. This event is co-hosted SDSU's NSBE, PASE, SHPE and MEP/MSP. Industry registrants are supplied a Resume CD of SDMA and student organization students.

Shadow Day

Annually in November

Companies have an opportunity to invite students of engineering and science interest to shadow an engineer or scientist from their company for the day. This provides the students a unique opportunity to experience the "real world" of a career in an engineering or scientific environment. What better way than to observe and work with a professional in action! Many companies use this opportunity to market their organization to up and coming engineering students for internships and future job opportunities.

MESA Training Academy

Annually in the Fall and Spring academic semesters

Academies are conducted by industry professionals during the academic year to train MESA students in skill sets that are currently in demand by industry. Specific skills training will include, but is not limited to, Code Division Multiple Access (CDMA) technology, Microstation, Lead Engineering and Six Sigma. Industry partners such as Hamilton Sundstrand, CALTRANS and NAVAIR have hosted trainings to better qualify students for internships and employment opportunities.

Summer Team Internships

Annually in Summer, 2008 – 2012

Thanks to a STEP Partnership of San Diego (SPSD) grant from the National Science Foundation the college partners of SDMA can facilitate a 100-hour summer internship program for a minimum of 36 SPSP students. Mixed teams of 2-4 community college and university students participate in multi-week team internships at industry sites. Participating companies' interview and select interns on the basis of their successful completion of the SPSP industry based standards. Interns receive a \$1,250 stipend from the grant; companies may choose to supplement stipend for additional hours or hire students through existing internship programs.

****Industry volunteers are always needed to present seminars, develop, setup and/or proctor competitions, host training at their facility, host students at their facility, sponsor student organizations' meetings or conferences and provide advice and direction to students.*

APPENDIX - 2

Student Outcomes¹

- Of MESA high school graduates who are African American, Latino American and American Indian, 41 percent are eligible for admission to a UC campus. This eligibility rate is much higher than the statewide rate of 6 percent for graduates from these groups.
- 77 percent of MESA students successfully completed Algebra 1 before the 10 th grade
- Of MESA seniors, 54 percent completed A-G requirements, compared to the state average of 34 percent. And 74 percent of MESA seniors took the SAT or ACT, compared to 36 percent of non-MESA participants in the same schools.
- Of MESA high school graduates, 54 percent went on to postsecondary education as math, science or engineering majors.
- Of the MESA seniors who went on to postsecondary education, 81.8 percent went on to four-year colleges and universities compared to the state average of 47 percent. Of the MESA high school graduates who went to college directly after graduation,
 - 28.5 percent went to the University of California
 - 21.4 percent went to the California State University
 - 24.6 percent went to the California Community Colleges
 - 4.3 percent went to independent California universities or colleges
 - 5.7 percent went to other institutions, mostly out-of-state universities or colleges
- Of those MESA community college students who transferred to four-year institutions, 98 percent entered these colleges and universities as math or science majors.
- Of the California MESA community college students who transferred to four-year institutions,
 - 45 percent transferred to the University of California
 - 47 percent transferred to the California State University
 - 6 percent transferred to independent California universities and colleges
 - 2 percent transferred to out-of-state universities and colleges.
- California MESA is the model for similar programs in over a dozen other states. A national HP initiative used MESA as its model for a national community college initiative designed to increase the number of engineers and computer scientists who are African American, Latino American, American Indian, or women.

¹ Retrieved from the California MESA website <http://mesa.ucop.edu/about/studentoutcome.html> on December 8, 2009.

APPENDIX - 3

Previous IAB Chairs

Brianna Lutes	Infrastructure Engineering Corporation	2010-present
Edgar Camerino	Rick Engineering Company	2007-2010
Tarrence Mack	Hamilton Sundstrand	2006-2007
Dolores Ventura	Infrastructure Engineering Corporation	2004-2006
Victor Baker	Rick Engineering Company	2002-2004
Tori Robinson	SONY Electronics	2000-2002
Steven Wallace	City of San Diego	1998-2000
Cynthia Landau	Rick Engineering Company	1996-1998
Ralph Munoz	County of San Diego Dept of Public Works	1994-1996
Jose Luis Gomez	CALTRANS	1992-1994
Dash Meeks	San Diego Gas & Electric (SDG&E)	1990-1992
Susi Kuklinski	General Dynamics-Space Division	1988-1990
Cecile Cowan	IBM	1986-1988
Frank Rojas	General Dynamics-Convair Division	1984-1986

IAB Organization Chart

