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School of Engineering and Computer Science, Diploma and Hooding Ceremony

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School of Engineering and Computer Science

Diploma and Hooding Ceremony

Saturday, May 10, 2014 – 1 pm Janssen-Lagorio Gymnasium

> University of the Pacific Stockton, California

ACADEMIC PROCESSION

Banner Bearer

Faculty Marshals

Candidates for the Bachelor of Science Degree

Candidates for the blended Bachelor of Science Degree and Master of Science in Engineering Science Degree

Candidates for the Master of Science in Engineering Science Degree

Faculty of the School of Engineering and Computer Science

Chaplain

Dean of the School of Engineering and Computer Science

PROGRAM

Dean Steven K. Howell, Presiding

Prelude

Guests will please remain seated during the processional.

Processional

"Pomp and Circumstance," March No. 1 in D, Op. 39 Sir Edward Elgar

Invocation											
Gentral Onite	<i>u</i> 1	110	νIJ	υu	151	C/	jui	UD	, 0,	<i><i><i>ockion</i>, <i>ici</i></i></i>	incu
Welcome	•								•	. Dean Ho	well
Valedictory Address	•	•	•							Ar. Kevin C Nichole John	
Presentation of Graduates	•									ofessor Luke in Gary Ma	
Concluding Remarks .	•		•							. Dean Ho	well
Benediction										. Rev. Ben	nett
Recessional											
Selections	fro	m	Fl	ഹാ	r's	M	arc	he	c		

ctions from Elgar's Marches Sir Edward Elgar

A reception honoring the graduates of the School of Engineering and Computer Science will be held immediately following the Diploma and Hooding Ceremony northwest of the Janssen-Lagorio Gymnasium. Parents, students, faculty, honored guests and friends are cordially invited to attend.

DEGREES CONFERRED

Bachelor of Science, Bioengineering

Alejandra Aguilar Wilson William Good** James Dion Hightower Kaelynn Kroll* Ji Yeon Lee Vinh Nguyen Brendan Patrick Nichols Jose Sandoval Krista Marie Suizo Gregory Scott Tyler II Diana Valenzuela-Medina

Bachelor of Science, Civil Engineering Bryant Arias Nathan J. Berend* Lafayette Pierre Blackmon Bruce B. Bloom Tyler Bylow Ana Castro Kevin Chan*** Christopher Brian Congrave Cameron Thomas Deatherage Ryan Dickey James Fantozzi Rhett Steven Kilgore** Shawn Michael Leyva** Clara Marie Lindberg Luke Nguyen Eduardo Margarito Perez **Enrique** Ponce Javier Rios-Farias** Gabrielle Erin Rubio Gianna Camille Sanguinetti

Kevin W. Schirmer Daniel Francis Sullivan Diego Uribe

Bachelor of Science, **Computer Engineering** Aseda Gyeke Aboagye Joshua Adrian Butler* Cecilia Carrillo Vong Cha* Presish Chand Ron E. Connors III Sean Robert Corcoran Theresa Marie Cruz Michael James Armando Eiskamp Adrian Escoto** Michael Feliz*** Matthew William Fitzpatrick Jennifer Nichole Johnson*** Phillip Ko (Ko, Tzu-wei) Jason Cory Lim **Timothy Lindberg** Nicholas Wing-Fai Low Kevin Edward Moakler Breanna Sue Nasholm Jacob Palmer Erich Robert Viebrock

Bachelor of Science, Computer Science Aseda Gyeke Aboagye Ankit Adlakha Patrick San Jose Agdipa Victor Aw* Drew Carlson Fernando Carranza Ornelas Camila Carvajal

Alexander Thomas Case Arthur Kazoen Chan Gigi Pui Chan Alexander Ray Dickerson** David Anthony Donangelo Omar Eshmawi* Ionathan Michael Hall Gregory M. Harris Graham Scott Heaton Tien Ho Peter J. Hodson** Michael Jacobs Andrew Johnson Zohaib Kayani** Anthony Joseph Foyt Kingery Kevin Luu David Ly*** Paolo Rocco Mariani Kevin Mark Nielson Rose Nish* Daniel Alexander Nunes Michael James Ongaro*** Neil Panchal Hien Thuc Quang Daniel J. Reed Gaurav Rijhwani Brandon Wayne Rose Gerald Alan Roubos Jr. William Lee Johansen-Shocknesse*** Celena Tan Chloe Ashley Umble Kenneth Yip*

Bachelor of Science, Electrical Engineering

Aseda Gyeke Aboagye Alexander Santos Aguirre** Jesse Tsukio Brinkman** Adrian Escoto** Jumal Khan John Patrick McGill Jr. Troy Alexander Morlan Tommy Oeur John Michael Ott*** Gilbert Anthony Rivera Jr. Michael Anthony Roberts Robin Elizabeth Senger** Richard N. Snider

Bachelor of Science, Engineering Management

Mohammad Ali Craig Michael Casity Michael Thinh Doan James Fantozzi Mackenzie Alisa Fay Ramses Marquez Derry Alexander Moten Gizela E. Nava Eric Takemoto Gavin N. Yorimoto

Bachelor of Science, Engineering Physics Jessica K. Dudoff Shaun Douglas Ente Lia Marie Genovese** Deven S. Kelling*** Derek James Kuether* Michael Anthony Ledesma

*Cum laude **Magna cum laude ***Summa cum laude

The list of names as it appears in this program includes actual and potential graduates for the 2013–2014 academic year. The above "graduation with honors" distinctions are contingent upon final grade point average calculations at the completion of all relevant degree requirements. The official list of graduates and honors awarded for each graduation date of the 2013–2014 year is maintained by the University Registrar.

Unive

Bachelor of Science, Mechanical Engineering Mohammad Ali Jeremy Alexander Bagnol** Andrew Brazil David Edward Brock* Alejandro Contreras*** Michael Brian Conway Christopher Czajka Minh Duc Dao Neil Dwyer Raphael Escalona Ruhui Gan Joel A. Garcia Patrick James Green** Kevin Michael Holmes* Sachin Manish Jhaveri Bradley R. Johnson** Chad Kealoha Kirstin Akemi Kita Chris Langton Justin Li Kurt Lopez Hieu T. Nguyen Shanon Yuki Nishimura Nayan Naresh Parmar Michael Alexander Pennisi* Hien Thuc Quang Garet Lennon Rae Mariano Salcedo Tyler Jacob Sandelin Tyler Dean Scott Emiliano Solorio III Sean Arlington Storc David Rafael Vaquero

Master of Science, **Engineering Science** Alejandra Aguilar Mohammad A. Alshaiji Dr. William Ford Thesis: Implementation of ERP Systems in Oil, Petroleum and Petrochemicals Companies: Kuwait National Petroleum Company (KNPC) Case Study Jeremy Alexander Bagnol Nathan J. Berend David Edward Brock* Ioshua Adrian Butler Alexander Thomas Case Craig Michael Casity Presish Chand Christopher Brian Congrave Alejandro Contreras*** Michael Brian Conway Christopher Czajka Ryan Dickey Joe Thanh Doan Neil Dwyer Raphael Escalona Chao Feng Dr. Henghu Sun Thesis: Treatment of Oil-Water Emulsion from the Machinery Industry by Fenton's Reagent Huan Feng Dr. Henghu Sun Thesis: Preparation of **Glass-Ceramics** Largely Using Steelmaking Slags and Study on the Effect of Iron Content on Properties

Ruhui Gan Patrick James Green Jonathan Michael Hall Graham Scott Heaton Kevin Michael Holmes Jennifer Nichole Johnson Dr. Elizabeth Basha Thesis: Optimizing Network Lifetime in Sensor Networks with Limited Recharging Capabilities Jumal Khan Rhett Steven Kilgore Shawn Michael Leyva Yanrui Liu Dr. Michael Doherty Thesis: Synthesizing Motion Sequences From Sample Motions To Satisfy Environmental Constraints Haoyuan Ma Dr. Henghu Sun Thesis: Study on Preparation of High Performance CMAS System Glass-Ceramic with Industrial By-Products John Patrick McGill Jr. Rachel E. Meyer Dr. Anahita Zarei Thesis: Iris Categorization Using Texton Representation and Symbolic Features Steven Miracle Cyle Richard Moon Dr. Gary Litton Thesis: Zooplankton-Phytoplankton Interactions in the San Joaquin River, CA

Troy Alexander Morlan Michael James Ongaro Sean R. O'Reilly Michael Alexander Pennisi Hien Thuc Quang Javier Rios-Farias Gilbert Anthony Rivera Jr. Michael Anthony Roberts Tyler Jacob Sandelin Whitney Lee Sandelin Richard N. Snider Emiliano Solorio III Sean Arlingon Storc Daniel Francis Sullivan Celena Tan Gary Lai Bun Tang Dr. Anahita Zarei Thesis: Fuzzy Inference Systems for Iris Biometrics Gregory Scott Tyler II Christopher Van Hoosear Dr. Elizabeth Basha Thesis: Surface Hardness Classification Via Unmanned Aerial Vehicles Gripper Finger Deflection Juan Carlos Vega Nicholas Yoshitaka Yuen Dr. Elizabeth Basha Thesis: Communication on Limited-Mobility Underwater Sensor Networks Yuntao Zhang Dr. Henghu Sun Thesis: The Significance of Calcium-Silicon Ratio in Alkali-Silica Reaction

of Glass-Ceramics

HONOR SOCIETY INDUCTEES

AWARDS

Valedictorian Kevin Chan Jennifer Nichole Johnson

Outstanding School of Engineering and Computer Science Graduate Deven S. Kelling

Academic Excellence Bioengineering — Wilson William Good Civil Engineering — Kevin Chan Computer Engineering — Jennifer Nichole Johnson Computer Science — Michael James Ongaro Electrical Engineering — John Michael Ott Engineering Management — Craig Michael Casity Engineering Physics — Deven S. Kelling Mechanical Engineering — Alejandro Contreras

Outstanding Graduate

Bioengineering — Gregory Scott Tyler II Civil Engineering — Shawn Michael Leyva Computer Engineering — Adrian Escoto Computer Science — David Ly Electrical Engineering — Robin Elizabeth Senger Engineering Management — Gizela E. Nava Engineering Physics — Jessica K. Dudoff and Derek James Kuether Mechanical Engineering — Jeremy Alexander Bagnol

> **Outstanding Co-op** Aseda Gyeke Aboagye

Who's Who in American Universities Jeremy Alexander Bagnol Kevin Chan Alejandro Contreras Alexander Ray Dickerson Michael Feliz

Peter J. Hodson Jennifer Nichole Johnson Deven S. Kelling Shawn Michael Leyva David Ly Michael James Ongaro John Michael Ott Javier Rios-Farias Robin Elizabeth Senger William Lee Johansen-Shocknesse

> Scholar Athlete Laureate Lia Marie Genovese

Alpha Sigma Lambda

Alpha Sigma Lambda is the national honor society recognizing excellence among nontraditional students, meaning those who have returned to college later in life and who achieve academic excellence while also fulfilling adult duties of work and family life.

> Jennifer Nichole Johnson** Robin Elizabeth Senger* William Lee Johansen-Shocknesse*

> > *inducted in 2013 ** inducted in 2012

Phi Kappa Phi

Among honor societies that induct members from all academic disciplines, Phi Kappa Phi, founded in 1897, is the nation's oldest, largest, and most selective. Invitation is extended to graduating seniors and graduate students in the top 10% of their class, and to juniors in the top 7.5% of their class. The mission of the society is to recognize and promote academic excellence and to engage the community of scholars in service to others.

> Lia Marie Genovese Jennifer Nichole Johnson Michael Feliz Rhett Steven Kilgore Whitney Lee Sandelin

Tau Beta Pi

Founded in 1885 to recognize those who have conferred honor upon their alma mater by distinguished scholarship and exemplary character as undergraduates in the field of engineering, or by their attainments as alumni in the field of engineering, and to foster a spirit of liberal culture in the engineering colleges, Tau Beta Pi is the only national scholastic engineering honor society which recognizes academic excellence in all engineering disciplines.

Alexander Santos Aguirre Jeremy Alexander Bagnol Nathan J. Berend Jesse Tsukio Brinkman Joshua Adrian Butler Vong Cha Kevin Chan Alejandro Contreras Jessica K. Dudoff Adrian Escoto Michael Feliz

AguirreLia Marie Genoveser BagnolWilson William GoodrendKevin Michael HolmesnkmanJennifer Nichole JohnsonButlerDeven S. KellingaRhett Steven KilgoreanShawn Michael LeyvaatterasJohn Michael OttdoffMichael Alexander PennisiotoJavier Rios-FariasdizWhitney Lee SandelinNicholas Yoshitaka Yuen

University of the Pacific • Commencement 2014

HISTORY OF THE SCHOOL

The School of Engineering and Computer Science

Engineering instruction at University of the Pacific began in 1924 as an area of concentration within College of the Pacific, producing some truly outstanding graduates. In 1958, the engineering program moved from College of the Pacific under the direction of its own dean, and became the School of Engineering. Bachelors' degrees were first offered in civil and electrical engineering and engineering management. The curricula in civil and electrical engineering were accredited in fall 1971 by the Engineering Council of Professional Development, now called the Accreditation Board for Engineering and Technology (ABET).

That same year, the School adopted a mandatory cooperative education program as a requirement for graduation, providing experiential learning through a paid engineering work experience that enhances the students' academic preparation by relating theory to practice.

The degree program in computer engineering was offered in 1978 and programs in engineering physics and mechanical engineering were instituted in 1981 and 1982. All three programs subsequently received ABET accreditation. The engineering management program was formally accredited in 2003.

Bioengineering, the school's newest program, was approved in 2000 and accredited for the first time in 2012, making the University of the Pacific the first private university in California, and one of only 11 institutions on the West Coast, with a fully accredited bioengineering program.

The computer science program was accredited by the Computer Science Accreditation Commission (also now ABET) in fall 1990 as a program in College of the Pacific. Computer Science joined the School of Engineering in 2002, creating the School of Engineering and Computer Science. The Board of Regents approved the Master of Science in Engineering Science (MSES) graduate program in April 2009. The program was successfully launched that fall, with a concentration in civil engineering. The following year, three additional concentrations were added: electrical/computer engineering, computer science, and mechanical engineering. While laying the foundation for a graduate program, the School streamlined its undergraduate curriculum, generated more than \$8 million in external research funding, and recruited outstanding new faculty members with extensive teaching, research and industry experience.

The 24,000-square-foot John T. Chambers Technology Center opened for classes in fall 2010. The \$12 million facility serves as the home of the School of Engineering and Computer Science and provides a strong foundation for the MSES graduate program. Equipped with the latest technology, the Chambers Technology Center contains lecture rooms, faculty offices, conference rooms, and collaborative research and teaching laboratories where students work directly with industry and government agencies to focus on modern innovations. The Chambers Technology Center was Pacific's first building to be certified as a LEED (Leadership in Energy & Environmental Design) gold facility.

The School of Engineering and Computer Science has cast a mission statement "to provide a superior, student-centered learning environment which emphasizes close faculty-student interaction and cooperative education in order to prepare graduates who excel in engineering and computer science professions, are qualified to pursue advanced degrees and possess the technical knowledge, critical thinking skills, creativity and ethical values needed for leadership in developing and applying technology for the betterment of society and sustaining the world environment."

PROFILE OF PACIFIC

University of the Pacific is an independent, coeducational university serving more than 6,400 students on three campuses in Stockton, San Francisco and Sacramento. It was established by pioneering Methodist ministers in 1851 as California's first chartered institution of higher learning. Pacific has earned widespread recognition for its deep commitment to teaching and learning, its history of innovation, and the accomplishments of its 55,000 living alumni.

As an innovator and leader in higher education, Pacific provided the state with its first medical school in 1858 (which later became part of Stanford, and today is California Pacific Medical Center); its first coeducational campus in 1870; and its first conservatory of music in 1878.

It was the nation's first to offer an undergraduate teacher corps program, the first to send an entire class to an overseas campus, the first to establish a Spanish-speaking inter-American college, and the first to offer a four-year graduation guarantee. With its move from San Jose to Stockton in 1924, Pacific became the first private four-year university in the Central Valley. Shortly after occupying the new campus, Pacific established one of California's earliest schools of education. In 1992 it was renamed the Gladys L. Benerd School of Education in honor of the alumna's endowed gift.

Pacific has enjoyed extraordinary stability in administration. Dr. Pamela A. Eibeck began her service in 2009 as the sixth President since the University's move to Stockton in 1924 and the 24th since its founding in 1851.

The University experienced its greatest growth and an expansion into graduate and professional education under the administration of Dr. Robert Burns (1947–1971). The School of Pharmacy opened in 1955. It is now the Thomas J. Long School of Pharmacy and Health Sciences, in honor of the Pacific benefactor and Regent who co-founded the former Longs Drugs Stores. In 1956 the graduate school was created, and in 1957 the School of Engineering was established. The Department of Computer Science joined the school in 2002 and was subsequently renamed the School of Engineering and Computer Science.

In 1962, the University acquired the College of Physicians and Surgeons, a school of dentistry founded in San Francisco in 1896. In 2004, the school was named the Arthur A. Dugoni School of Dentistry in honor of its dean of 28 years. It was the first time any university in the United States or Canada had named its dental school for the current dean.

Three new cluster colleges were established at Pacific in the 1960s, in the model of British universities such as Oxford and Cambridge. These colleges integrated faculty and students into distinct living and learning communities. Raymond College, established in 1962, was an accelerated, interdisciplinary liberal arts program in which students shaped their own courses of study. Elbert Covell College, established in 1963, was a unique inter-American college. Half the students were from the U.S. and half from Latin America, with classes taught in Spanish. Callison College, established in 1967, focused on non-Western studies with a year of study in an Asian culture. The cluster colleges were absorbed into the rest of the University in 1982. Their values, including a close-knit learning community, accelerated and interdisciplinary programs, and self-designed majors, have left a lasting impact on Pacific. Their emphasis on global education continued in the School of International Studies, founded in 1987 as the first university-based undergraduate school of international studies in California. In 2012, the School of International Studies, while retaining its autonomy as a school, became part of the College of the Pacific.

In 1966, Pacific broadened its footprint to Sacramento when McGeorge College of Law, an independent law school founded in Sacramento in 1924, merged with the University as the Pacific McGeorge School of Law. In 1977, the department of business administration in College of the Pacific was reorganized as the School of Business and Public Administration. In 1995 it was renamed Eberhardt School of Business in honor of the Eberhardt family's endowed gifts. Programs designed specifically for adult re-entry students were reorganized and revitalized in 1985 through University College, now the Center for Professional and Continuing Education.

Over the last twenty years, Pacific has advanced its legacy of innovation and leadership. Under the leadership of President Donald DeRosa (1995–2009), the University invested more than \$200 million in facilities renovation and construction projects on all three campuses. Pacific also increased distinctive accelerated programs that enabled students to complete undergraduate studies in combination with professional degrees in pharmacy, law, dentistry and business. The University intensified its commitment to experiential learning, including undergraduate research, internships, community service and education abroad. Pacific also launched the Brubeck Institute, dedicated to building on the legacy of Dave Brubeck '42, and the Powell Scholars Program, a premier scholarship program for undergraduate student leaders.

Dr. Pamela A. Eibeck assumed Pacific's Presidency in 2009. Under her stewardship Pacific is expanding its presence in Sacramento and San Francisco and implementing a bold new strategic vision, Pacific 2020. This vision capitalizes on Pacific's highly regarded academic programs, formative student-teacher relationships and multiple locations to position University of the Pacific to become the best teaching-focused university in California—the first choice for talented students who want excellent programs, close working relationships with faculty, a challenging but supportive learning environment, and an exciting future after graduation.

In 2013, the University received a transformational gift of \$125 million from the estate of the late Regents Robert and Jeannette Powell. The Powells were ardent champions of the University's educational mission, and great advocates for access and excellence. In accordance with their wishes, their gift has been endowed and earmarked for scholarships and academic programs. A large portion of the gift will be used to encourage others to make new endowment gifts through the Powell Fund Match Program. Our donors' generosity and passion for Pacific will mean that generations of students will be able to achieve a superior education.

The University recently completed renovations on a new campus in San Francisco, at 155 Fifth Street, which will open in July 2014. The new campus provides the requisite space and facilities for the Arthur A. Dugoni School of Dentistry to continue defining the frontiers of dental education. It also extends Pacific's educational footprint and visibility in San Francisco in the health, tech, music, and food sectors. Additional new programs will be added in the coming years as Pacific focuses on attracting new student markets and leveraging its presence in three of Northern California's most prominent cities. President Eibeck has made community engagement a priority for the University. In 2010, Pacific launched the "Beyond Our Gates... Into the Community" initiative in order to forge community partnerships that improve lives in our region. As part of Beyond Our Gates, the University has launched The Tomorrow Project, an intensive K-12 educational outreach program, and the Beyond Our Gates Community Council, an advisory body comprising local leaders in San Joaquin County. The Community Council has garnered national attention through its work to improve early literacy in San Joaquin County.

On July 1, 2013, University of the Pacific rejoined the West Coast Conference. A founding member of the conference, Pacific shares its sister institutions' long tradition in intercollegiate athletics and their dedication to high quality academics and athletic success.

Pacific continues to enjoy national recognition for its leadership in higher education, consistently ranked among the best national universities by U.S. News & World Report and Princeton Review. The University has been listed as a "Best Value" (Top 50) by U.S. News & World Report every year since 2000. U.S. News also ranks Pacific very high for ethnic (Top 5) diversity. In 2012, PayScale, which tracks salary information, ranked the University in the top 75 institutions in the United States for highest paid graduates.

The University remains deeply committed to its personal, student-centered approach. Faculty and staff are dedicated to excellence in teaching. Close faculty mentoring, a rich blend of liberal arts and professional education, and a broad array of experiential learning activities that prepare students for lasting achievement are hallmarks of the Pacific experience.

SCHOOL AND College Banners

School and college banners signifying each of the academic units of the University precede a unit's faculty in the procession and are displayed during the ceremony. The color of the banner symbolizes the academic discipline.

College of the Pacific — The golden yellow field of this banner represents the sciences, while the white letters signify the arts and humanities. Founded in 1851, the College of the Pacific is the largest and oldest academic unit.

University Library — This banner's lemon-yellow color represents the library sciences. The Library has supported teaching, learning and scholarship since Pacific's founding in 1851. It is home to many special collections, including the papers of naturalist John Muir and musician Dave Brubeck.

Conservatory of Music — The tradition of representing music with the color pink originated at Oxford University. Pacific's Conservatory, established in 1878, is the first university-affiliated school of music in the West.

Arthur A. Dugoni School of Dentistry — The lilac color of dentistry forms the field for this banner. Founded in 1896 as the College of Physicians and Surgeons, the School became part of the University in 1962. It is named in honor of the alumnus who served as dean of the school from 1978 to 2006.

Pacific McGeorge School of Law — Purple, a color traditionally associated with royalty and governance, represents the law. Named in honor of its founder, Verne Adrian McGeorge, the School opened in 1924 and merged with Pacific in 1966.

Gladys L. Benerd School of Education — The light blue field signifies disciplines related to education. The School is named in honor of the distinguished alumna who bequeathed the school with an endowment. It was founded in 1924 when the University moved to Stockton.

Thomas J. Long School of Pharmacy and

Health Sciences — Pharmacy is represented by olive green, a color associated with healing herbs. The School, established in 1955, is named for the benefactor and Regent who, with his brother Joseph, founded Longs Drugs Stores.

Research and Graduate Studies — Red-orange signifies this division, which was established in 1956 as Pacific expanded its graduate degree offerings.

School of Engineering and Computer Science — This banner's orange represents the engineering and computer science disciplines. The School was founded in 1957 from a

department that dates to the 1930s.

Eberhardt School of Business — The School's banner features an olive brown field. Founded in 1977, the School was renamed in 1995 in honor of the Eberhardt Family's endowed gifts.

School of International Studies — Peacock blue symbolizes the field of international studies. The School was established in 1987 with a gift from George and Isabelle Wilson.

SIGNIFICANCE OF ACADEMIC REGALIA

Distinctive academic dress can be traced back to the universities of the Middle Ages when university students and faculty wore the robes of the clergy. Today three ranks of degrees are distinguished through variations in the robes, which also indicate the discipline and the university that awarded the degree.

In the United States, gowns generally are black. The color of the edging of the hood and occasionally the color of the facing and crossbars on the doctoral gown indicate the field of learning in which the degree is awarded. The colors of the lining of the hood are those of the institution awarding the degree. Generally, bachelor's and master's tassels are black, and doctoral tassels are gold. After graduation the tassel is worn on the left side of the Mortarboard. An individual's degree is revealed by the type of gown and width of the edging on the hood.

Bachelor's gowns have full, pointed sleeves with no trimming. Hoods have a two-inch edging. Master's gowns prior to 1960 had full, closed sleeves with the arm emerging through a slit at the elbow. In 1960, the gown was modified replacing the elbow slit with an opening at the wrist, and the gown was made to close. Hoods have a three-inch edging. Doctor's gowns are of silk, have rounded sleeves, velvet facing down the front and three velvet crossbars on each sleeve. Hoods have side panels and a five-inch facing.

17



Pacific Hail!

Words and Music by Lois Warner Winston '23, '58

From o'er the rugged mountains standing high;

From out the broad low valleys, 'neath the sky;

Our alma mater calls, we cannot fail,

Our voices blend in praise, Pacific Hail! Pacific Hail!

Long may her flaming torch give out its light; Long may her spirit guide us in the right;

> To her we pledge our hearts, We dare not fail;

To her we raise our song, Pacific Hail! Pacific Hail!

School of Engineering and Computer Science

209.946.2151 Pacific.edu/ENG