Department of Civil Engineering
University of California at Berkeley

The First One Hundred Years (or so)
University Established - 1868

 Charter provided for Colleges of:
  - Agriculture
  - Letters
  - Chemistry
  - CIVIL ENGINEERING
  - Mining
  - Mechanics
College of Civil Engineering

- Established 1872

- Head: Frank Soule
  - Dean of College - 1896 - 1907

- Civil Engineering Building located just east of existing Campbell Hall
Early CE Faculty Member

- Frank Soule
  - Graduate of West Point
Civil Engineering Building (1925)
Mechanics Building

- Hydraulics Laboratory
Engineering Materials Laboratory (EML, Circa 1931)
Current Locations

- Engineering Building/McLaughlin Hall
  - Circa 1931
- O’Brien Hall
  - Late 1950’s
- Davis Hall
  - 1969
College of Mechanics

- Established 1878
- Dean: Frederick G. Hesse
- Hesse Hall
Civil Engineering Faculty

- Hired prior to 1930
  - C. Derleth 1903-1944 41 years
  - C.G. Hyde 1905-1944 39
  - B.A. Etcheverry 1905-1950 45
  - F.S. Foote 1912-1954 42
  - S.T. Harding 1914-1949 35
  - C.T. Wiskocil 1914-1952* 38

*Deceased before retiring.
# Civil Engineering Faculty

## Hired prior to 1930 (cont)

- W. Langlier 1916-1956 40 years
- R.E. Davis 1920-1952 32
- B. Jameyson 1920-1956 36
- G.E. Troxell 1920-1963 43
- H. E. Davis 1930-1973 43
Civil Engineering Faculty

Some since 1930

- H.D. Eberhart  Structures
- E.P. Popov  Structures / Mechanics
- T.Y. Lin  Structures (bridges)
- R.W. Clough  Structures
- A.C. Scordelis  Structures
- J.W. Johnson  Hydraulics/Coastal
- H.A. Einstein  Hydraulics
- R.L. Wiegel  Hydraulics/Coastal
Civil Engineering Faculty

- B. Bresler, Structures / Materials
- K.S. Pister, Structures / Mechanics
- H.B. Seed, Soil Mechanics
- F. Baron, Structures (Bridges & Blgs.)
- J. Raphael, Structures (Dams)
- J. Penzien, Structures
- J.K. Mitchell, Soil Mechanics
- E.L. Wilson, Structures
Civil Engineering Faculty

Some since 1930 (cont)

- B. Gotaas, Sanitary Engineering
- E. A. Pearson, Sanitary Engineering
- R. Goodman, Rock Mechanics
- K. Crandall, Construction Mgmt
- B. C. Gerwick, Jr., Heavy Construction
- R. A. Moyer, Highway Engineering
- D. S. Berry, Traffic Engineering
Civil Engineering Faculty

- F. H. Moffitt: Surv. & Photogrammetry
- W. N. Kennedy: Transportation
- R. Horonjeff: Airport Engineering
- A. D. May: Traffic Engineering
- G. F. Newell: Transportation
- B. A. Vallerga: Asphalt Technology

Some since 1930 (cont)
## Civil Engineering Faculty

- **Some since 1930**
  - W. Kaufman: Sanitary Engineering
  - W.J Oswald: Sanitary Engineering
  - W. G. Godden: Structures
  - J. F. Thomas: Sanitary Engineering
  - W. L. Garrison: Transportation Planning
  - C. L. Monismith: Pavement Engineering
  - V. Bertero: Structures
Civil Engineering Faculty

Some since 1930 (cont.)

- J. Sackman  Structural Mechanics
- W.G. Godden  Structures
- J. Lubliner  Structural Mechanics
- R.L. Taylor  Structural Mechanics
- D. Jenkins  Sanitary
- J. Kelly  Structural Mechanics
- H. Fisher  Hydraulics
- J.M. Duncan  Soil Mechanics
- J. Lysmer  Soil Dynamics
Some since 1930 (cont.)

- J. Anderson Surv. & Photogrammetry
- A.J. Horne Sanitary
- R. B. Williamson Structural Materials
- A. Kanafani Transportation
- A. Der Kiureghian Reliability/Risk
Program Evolution

1929 - 1931

College of Civil Engineering
College of Mechanics

merged

College of Engineering
College of Engineering

- Prof C. Derleth
  - Dean of CE 1907 - 1929
  - Dean of CoE 1929 - 1942

- Regent McLaughlin 1942 - 1943

- Prof M.P. O’Brien 1943 - 1959
Programs

- First BS degree in Civil Engineering 1873
- First MS degree in Engineering 1896
- First PhD degree in Engineering 1894
Programs (cont)

- Engineering Council for Professional Development (now ABET)
  - created in 1932
  - UC accredited in 1936
Programs (cont)

- M.S., Ph.D, and D. Eng. Almost from outset
- Graduate programs significantly expanded in 1950's
- 2 yr. M. Eng. Program introduced in 1972
Charles Derleth

- Buildings, San Francisco (post-1906 Quake)
- Carquinez Bridge
- San Francisco-Oakland Bay Bridge
- Golden Gate Bridge
Charles Gilman Hyde

- “Father” of Sanitary Engineering in Western U.S.
- Water and Sewage Treatment
  - plant design
B. A. Etcheverry (Etcheverry Hall)

- Irrigation Engineering
- Yolo by-pass
  - Sacramento River
Irrigation Engineering
- legal aspects
C. T. Wiskocil

- Materials
- Professionalism
Applications of chemistry to Sanitary Engineering problems

- e.g., Chemical dosing of water
  - disinfection
  - clarification
  - softening
R. E. Davis (Davis Hall)

- Materials Laboratory (Structural Testing)
- Cement and Concrete
  - Boulder Dam
  - Bonneville Dam
- San Francisco-Oakland Bay Bridge
  - riveted joints
- Golden Gate Bridge Saddles
B. Jameyson

- Posey Tube
- Bridges
  - Oakland/Alameda
  - Alameda County
H. E. Davis

Transportation Administration Economics Finance Policy
H. Eberhart

- Structures
- Prosthetic Devices
  - Start of bio-engineering
M. P. O’Brien

- Coastal Engineering
  (considered “Father” of Coastal Engineering)
J. W. Johnson

Coastal Engineering
H. A. Einstein

- Sediment Transport
E. P. Popov

- Engineering Mechanics
- Structural Engineering
B. Bresler

- Structural Engineering
  - Concrete behavior
  - Aircraft structures
M. Polivka

- Structural Materials
R. A. Moyer

Highway Engineering
Economics (including vehicle operating costs)
Skid Resistance
Other road surface characteristics
D. S. Berry

Traffic Engineering
R. W. Clough

- Earthquake Engineering
- Finite element methodology (one of the first to develop this approach for the solution of Civil Engineering problems)
A.C. Scordelis

- Structural Engineering
E.A. Pearson

- Sanitary Engineering
W. J. Kaufman

- Sanitary Engineering
J.W. Thomas

- Sanitary Engineering
K.S. Pister

- Structural Mechanics
R. Horonjeff

- Transportation
  - Exit Taxiways
  - Runway Lighting
  - Airport Capacity
D.W. Finch

- Transportation
  - Lighting
F. H. Moffitt

Surveying
Photogrammetry
H. B. Seed

Strength and Deformation Characterization of Compacted Clay Repeated Load Response of Soils and Granular Materials Liquefaction of Fine-Grained Soils
R. L. Wiegel

Coastal Engineering
J. M. Raphael

- Dam Design
  - Shasta
  - Folsom
F. Baron

- Structural Engineering
  - Buildings
    » St. Mary’s Cathedral
  - Bridges
    » Dumbarton Bridge
    » Golden Gate Bridge
J.W. Penzien

- Structural Engineering
C. L. Monismith

Pavement Design and Rehabilitation
Asphalt Technology
V Bertero

- Structural Engineering
J.W. Sackman

- Structural Mechanics
J. K. Mitchell

Physico-Chemical Properties of Soils
Soil-Stabilization with Portland Cement, Lime, and Lime-Flyash
W.G. Godden

- Structural Engineering
W.J. Oswald

- Sanitary Engineering, algae symbiosis
D. Jenkins

- Sanitary Engineering
A. D. May

Traffic Operations
Control
Simulations
G. F. Newell

Traffic Flow Theory
Queueing
R.E. Goodman

Geological Engineering
Rock Mechanics
also
Musician and Opera Singer
J. Lubliner

- Structural Mechanics
R.L. Taylor

- Structural Mechanics
E. L. Wilson

- Finite element analysis
J.M. Kelly

- Structural Mechanics; earthquake engineering - base isolation.
J.M. (Mike) Duncan

- Soil Mechanics
- Flow nets
- Slope Stability
J. Lysmer

- Dynamic analysis of soil structures
  - earthquake engineering
T. Brekke

- Geological Engineering
- Tunneling
A. K. Chopra

- Structures
J. Anderson

❖ Surveying and Photogrammetry
H. Fisher

- Hydraulics
K.C. Crandall

- Construction management
B. C. Gerwick

- Richmond-San Rafael Bridge
  - foundation
- Oil Drilling Structures
  - North Sea
  - Bass Strait - Australia
A. J. Horne

- Sanitary Engineering
R. B. Williamson

- Structural Materials
  - Fire Protection Engineering
A. Kanafani

- Transportation Engineering
  - Air Transport
W. L. Garrison

Transportation Planning
Freight Transport
A. Der Kiureghian

- Structures
  - Risk Analysis
Graduates of Program

- Robert Gordon Sproul, 1912
  - President, University 1930-1958

- Presidents of ASCE
  - Walter Huber (CE 1905)
  - John Rinne (CE 1931)
  - Irving Mendenhall (CE 1941)
  - Richard Karn (CE 1950)
  - James McCarthy (CE 1947)
Graduates of Program (cont)

- Presidents of PG and E
- Public Works Officials
- Consulting Engineers
Summary

- **Faculty**
  - teaching, research, practice
  - adjustment to changes

- **Students**
Summary (cont)

- Traditions
- Adaptability
- Continuous professional development