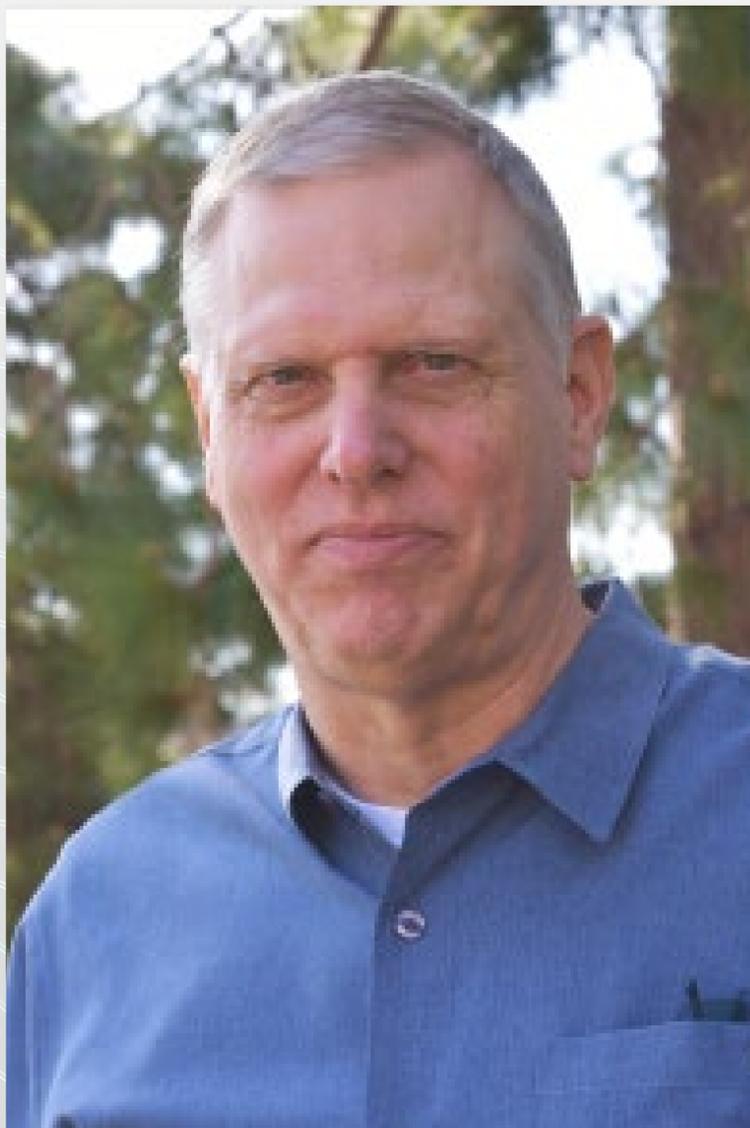


DESIGN TIME HISTORIES 2026

WEDNESDAYS, JANUARY 28, FEBRUARY 4, 11, 18, 25, MARCH 4, 11, 18, APRIL 1, 8
1:00 PM - 2:00 PM PACIFIC | VIRTUAL

REGISTER

MEMBERS \$600
NONMEMBERS \$900



This 10-week class will cover development of time histories for use in dynamic analyses of structures. The student is expected to have a basic understanding of PSHA either from work experience or from the CalGeo PSHA class.

WEEK 1

- Design spectra and target ranges for secondary parameters including period-dependent duration, Arias intensity, CAV, PGV, and near-fault parameters

WEEK 2

- Selection of candidate seed time histories (recorded and/or simulations) and limits on scale factors
- What ranges of seismological parameters should be used?

WEEK 3

- Documentation in a PSHA report
- Summary of plots and tables for documenting the design time histories

WEEK 4

- Review problem set 1 (scaled)

WEEK 5

- Target range for peak-to-trough variability
- Where does the variability belong?

WEEK 6

- Spectral matching methodology (approach and math)

WEEK 7

- How to use the spectral matching computer program

WEEK 8

- Review Problem set 2 (matching)

WEEK 9

- Evaluation of the realism of the modified (scaled or matched) time histories

WEEK 10

- Review

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