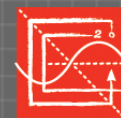


16-HOUR STRUCTURAL ENGINEERING EXAM UPDATE

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NCEES
*advancing licensure for
engineers and surveyors*

NCEES Structural Exam Task Force

- 2006–07 charge: Evaluate existing Structural exams and make recommendations for modifications to the SE exams so that a common exam can be used by all NCEES member boards that license structural engineers by 16 hours of examination.
- Voted at the 2008 annual meeting to move forward with the 16-hour exam

States with S.E. license based on 16-hour exam

- Arizona SE I + SE II
- California SE II + CA SE III
- Guam SE I + SE II
- Hawaii SE I + SE II
- Idaho SE I + SE II
- Illinois SE I + SE II
- Louisiana SE I + SE II
- Nebraska SE I + SE II
- Nevada SE I + SE II
- Oregon SE II + WA SE III
- Utah SE I + SE II
- Washington SE II + WA SE III

New Exam Format

- Two 8-hour components
- Breadth and depth
- Integrated design, analysis, and detailing questions
- No single component of the exam is a sufficient stand-alone exam for any purpose.
- See NCEES Web site for exact specifications.

Exam Format (continued)

- Vertical Forces (Gravity/Other) and Incidental Lateral Component—offered on Friday only
 - Analysis and design for gravity forces and incidental lateral forces from soil, ice, etc.
 - Morning: 4 hours, 40 multiple-choice problems
 - Afternoon: 4 hours, constructed-response problems
 - Four 1-hour building problems OR
 - One 2-hour and two 1-hour bridge problems

Exam Format (continued)

- Lateral Forces (Wind/Earthquake) Component—offered on Saturday only
 - Analysis and design for lateral forces—high wind and high seismic
 - Morning: 4 hours, 40 multiple-choice problems
 - Afternoon: 4 hours, essay problems
 - Four 1-hour building problems
 - Two problems in SDC D and one wind problem with wind speed at 110 mph or higher

OR

- One 2-hour and two 1-hour bridge problems

Passing the Exam

- Each component may be taken in separate administrations or on consecutive days in the same administration.
- Candidate must successfully complete both components to pass the exam.
- *Model Law* and *Model Rules* were revised to add a 5-year limit to pass the second component once a candidate successfully completes his or her first component. This can be adopted on a state-by-state basis.
- At the 2011 annual meeting, EPP is proposing policy language to match the *Model Law* and *Model Rules*.

Scoring the Exam

- How do we ensure that a candidate doesn't obtain acceptable results in a component by performing well in the morning (multiple choice) but poorly in the afternoon (constructed response)?

Partial Compensatory Scoring

- This scoring method allows a candidate to make up some points in the morning portion but requires a minimum number of points in the afternoon portion.
- The purpose is to ensure that a candidate doesn't “ace” the morning (multiple choice) and “flub” the afternoon (constructed response) and still obtain acceptable results.
- This is the method NCEES is using.

Transition

- Candidates who have passed SE II will have one more exam administration to pass the WA SE III exam if they want to be licensed in Oregon or Washington without taking the new exam.
- Candidates who have passed SE II will have one more exam administration to pass the CA SE III exam if they want to be licensed in California without taking the new exam.
- All other candidates who have not met the requirements will need to pass the new 16-hour exam to be licensed in those states requiring 16 hours of examination.

Frequently Asked Questions

- If I have passed SE I, can I exempt the first day of the new 16-hour exam?
 - No
- Can I “pass” one day of the new exam and be licensed as a P.E. since I would have passed 8 hours of examination?
 - No, the 16-hour exam is not designed to test minimal competence with just one component.

FAQs (continued)

- Assume I pass both SE I and SE II by the end of 2010 and sometime in the future want to be licensed in a state that currently requires both SE I and SE II but will soon require the new 16-hour exam. Will I have to take the new 16-hour exam at that time?
 - Most boards base reciprocity requirements on the licensing requirements at the time the applicant took his or her exam(s).

FAQs (continued)

- If I am licensed in a state currently requiring SE I for licensure and the state changes to require the new 16-hour exam, will I need to pass the new exam to maintain my license?
 - That will depend on the state, but in most cases, probably not.

FAQs (continued)

- Will passing the new 16-hour exam be the equivalent of passing SE I and SE II?
 - No, the new exam has high seismic and high wind content that is not in the current SE I and SE II exams. Boards may use this exam differently.

FAQs (continued)

- If I achieve an acceptable result on the Vertical or Lateral component of the exam and fail the other component, will I have to retake both?
 - No, but there is no credential awarded for achieving acceptable results on one component only.
 - Some boards may give a limited window of time to achieve an acceptable result on the second half of the exam.

Component and Exam Results Notice Sample–April 2011

STR16 Exam and Component Results Notice

Spring 2011
1/25/2011

NCEES ID	Name (1)	Birthdate	Vertical Component		Lateral Component		Exam Results	
			Attempts (3)	Admin when Acceptable Results were obtained	Attempts (3)	Admin when Acceptable Results were obtained	Result (2)	Admin Achieved
15280-66140	Bob Jones	5/20/1981	1	201104	1	201104	Pass	201104
16769-58832	Tucker Clark	2/18/1983	1	201104	1	201104	Pass	201104
19376-00453	Noemi Lettieri	1/14/1984	1		1			
12638-28553	John Doe	8/7/1985	1	201104	1			
16847-61471	Jane Smith	2/9/1983	1		1	201104		
16846-27157	Seth Thomas	4/5/1977	1	201104				
11008-22135	Susan Adams	7/6/1982			1	201104		

- Notes:
1. Examinees listed attempted one or more components this exam administration.
 2. Only candidates who obtained acceptable results for both components are shown as passing the exam.
 3. Additional information regarding attempts can be obtained by looking up the examinee via the ExamineeManagement System (EMS).

Component and Exam Results Notice Sample–April 2014

STR16 Exam and Component Results Notice

Spring 2014
1/25/2011

NCEES ID	Name (1)	Birthdate	Vertical Component		Lateral Component		Exam Results	
			Attempts (3)	Admin when Acceptable Results were obtained	Attempts (3)	Admin when Acceptable Results were obtained	Result (2)	Admin Achieved
10156-74602	John Smith	8/7/1985	1	201104	5	201404	Pass	201404
12164-65139	Bob Jones	2/9/1983	4	201404	3	201204	Pass	201404
15280-06140	Kurt Baccus	5/20/1981	1	201404	1	201404	Pass	201404
16494-24525	Erik Rufener	7/6/1982	4	201404	1	201104	Pass	201404
14425-13918	Neil Boaz	1/14/1984	1	201310	1	201404	Pass	201404
14657-88827	Pearlie Gift	9/28/1988	2	201210	5	201404	Pass	201404
10306-48461	Marcie Saeed	10/29/1991	1	201404	1	201404	Pass	201404
19477-83998	Christian Kofoed	4/5/1977	4		4			
15992-90063	Cody Rierson	2/18/1983	2	201110	5			
10561-96917	Saundra Vanars	12/18/1979	1		1			
15710-75260	Fernando Talam	3/13/1990	3	201304	5			
17421-64163	Hugh Sundstrom	11/10/1988	1	201104	7	201404		
10206-59957	Noemi Lettieri	10/8/1979	3		3	201404		

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Questions for Member Boards

- If candidates failed either STRI or STRII, are they considered “retakers” or “first-time takers” with regard to the new exam?
- If a member board has a “retake” policy, will it apply to the components separately or the exam as a whole?
 - Example: If a candidate attempts the Vertical component three times and the Lateral component once, has he or she attempted the exam three times or one time?
- If someone who has passed the STRI and STRII applies for an S.E. license by comity, will you grant approval (assuming you used to license S.E.s by passing the STRI and STRII)?

Questions for Member Boards

- Will a member board accept the PE Civil–Structural exam for a P.E. license? S.E. license?
- Will a member board accept the 16-hour SE exam for a P.E. license?
- If a candidate passes the new exam in a state that has an S.E. license, will he or she receive both a P.E. and an S.E. license?

Spring 2011 Administration

Exam	Fall 2010	Spring 2011
CIV-STR	1,190	1192
STRI	580	X
STRII	583	X
STR16-VER	X	556
STR16-LAT	X	500

49 of 54 potential boards are offering the exam.

490 unique candidates for STR16. 66 taking VER only,
10 taking LAT only, and 490 taking both.

Questions?