

**NCSEA Structural Engineering Exam Review
Course
Exam Test-Taking Tips and SE
Exam Format Overview
August, 2017**

Presented by Thomas A. Grogan Jr., PE, SE



SE EXAM REVIEW COURSE — August 2017

1

Exam Test-Taking Tips and SE Exam Overview

Agenda

- **Overview**
- Preparation
- Reference notebooks and materials
- Test-taking hints and highlights
- NCEES SE Exam specific information



SE EXAM REVIEW COURSE — August 2017

2

Exam Test-Taking Tips and SE Exam Overview

Effective April, 2011

- Two 8-hour exams
 - Vertical Forces (Gravity/Other) and Incidental Lateral
 - Lateral Forces (Wind/Earthquake)
- Must achieve acceptable results on both exams to be considered to have passed
- Each exam
 - Four-hour breadth exam in the morning
 - Four-hour depth exam in the afternoon



SE EXAM REVIEW COURSE — August 2017

3

Exam Test-Taking Tips and SE Exam Overview

Effective April, 2011

- The Vertical Forces exam is offered on a Friday in April and October.
- The Lateral Forces exam is offered on a Saturday in April and October.
- You can take the exams in the same exam cycle or different cycles.



SE EXAM REVIEW COURSE — August 2017

4

Exam Test-Taking Tips “The Obvious”

Decide if you will:

- take both 8-hour sessions back-to-back in the same weekend (**the grind**); or
- divide into a Spring and Fall event of eight hours each (**my recommendation**); or
- divide into a two or more year endeavor.

Both sections must be successfully completed within five* years (*Check with your licensing board).



SE EXAM REVIEW COURSE — August 2017

5

Exam Test-Taking Tips “The Obvious”

- Spend more time on your areas of strength (not areas of inexperience)
- Pick one or two *new* areas to learn that are most closely related to your daily workload and strengths



SE EXAM REVIEW COURSE — August 2017

6

Exam Test-Taking Tips and SE Exam Overview

NCEES Info:

- Approved Calculators
 - Hewlett Packard - HP 33s and HP 35s models, no others.
 - Casio – All fx-115 and fx-991 models. All Casio calculators must contain fx-115 or fx-991 in its model name
 - Texas Instruments – All TI-30x and TI-36x models. All Texas Instruments calculators must contain either TI-30x or TI 36x in its model name.



SE EXAM REVIEW COURSE — August 2017

7

Exam Test-Taking Tips and SE Exam Overview

NCEES Info:

- Admission Requirements
 - For exam admission, examinees must present their Exam Authorization and one of the following kinds of identification.
 - ID issued by government entity.
 - International travel passport.
 - U.S. Military ID
 - All IDs must be current and include an expiration date, your name and date of birth, a recognizable photo, and your signature.
 - Valid U.S. military IDs that do not include a signature will not be accepted.
 - Student and expired IDs will not be accepted.
 - The first and last name on the examinee's ID and Exam Authorization must match.



SE EXAM REVIEW COURSE — August 2017

8

Exam Test-Taking Tips and SE Exam Overview

NCEES Info:

- Grounds for Dismissal from the Exam and/or Invalidation of Exam Results
 - Having a cell phone in your possession
 - Having loose papers, legal pads, writing tablets, or unbound notes in your possession
 - Having a device with copying, recording, or communication capabilities in your possession. These include but are not limited to cameras, pagers, PDA's, radios, headsets, tape players, calculator watches, smartwatches, electronic dictionaries, electronic translators, transmitting devices, fitness trackers and digital media players such as iPods.



SE EXAM REVIEW COURSE — August 2017

9

Exam Test-Taking Tips and SE Exam Overview

NCEES Info:

- Items not permitted in the exam room include but are not limited to:
 - Hats with brims, hoods (on hooded sweatshirts, for example)
 - Slide charts, wheel charts, or drafting compasses
 - Non-NCEES writing instruments or erasers
 - Weapons of any kind
 - Tobacco products
 - Personal chairs



SE EXAM REVIEW COURSE — August 2017

10

Exam Test-Taking Tips and SE Exam Overview

NCEES Scoring Info:

- After each pencil-and-paper exam administration, every exam undergoes extensive statistical analysis to determine the minimum level of performance required for entry into the profession. This rigorous process helps ensure an equitable licensure system for examinees while upholding the standards of the profession



Exam Test-Taking Tips and SE Exam Overview

NCEES Exam Results Info:

- You will be notified when your results are available as established by your licensing board.
- The method of notification and length of time it takes to receive your results vary by licensing board.
- Most examinees will receive their notification via email from NCEES within 8-10 weeks with instruction to view your results through your MyNCEES account.
- Visit ncees.org/boards to review the policies and procedures associated with the licensing board you selected during the registration process.

Exam Test-Taking Tips and SE Exam Overview

NCEES Exam Results Info:

- Exam results are reported as pass or fail. If you fail the exam, you will receive a diagnostic report showing your performance for each of the major topics covered on the exam. The diagnostic report is provided to help identify the knowledge areas where improvement is needed before retaking the exam.
- NCEES releases the results to the licensing boards and testing agencies, who in turn report the results to the examinees



SE EXAM REVIEW COURSE — August 2017

13

Exam Test-Taking Tips and SE Exam Overview

NCEES Info:

- Exam Pass rates

The following rates are from April 2017 exam administration and reflect the percentage of examinees who attained acceptable results by component. To pass the SE exam, acceptable results must be attained on both components.

| <u>Exam</u> | <u>First time takers</u> | | <u>Repeat takers</u> | |
|------------------------------|--------------------------|------------------|----------------------|------------------|
| | <u>No.</u> | <u>pass rate</u> | <u>No.</u> | <u>pass rate</u> |
| SE Lateral Forces Bridges | 31 | 35% | 50 | 38% |
| SE Lateral Forces Buildings | 270 | 38% | 202 | 29% |
| SE Vertical Forces Bridges | 39 | 67% | 24 | 50% |
| SE Vertical Forces Buildings | 302 | 45% | 164 | 23% |



SE EXAM REVIEW COURSE — August 2017

14

Exam Test-Taking Tips and SE Exam Overview

Agenda

- Overview
- **Preparation**
- Reference notebooks and materials
- Test-taking hints and highlights
- NCEES SE Exam specific information

Exam Test-Taking Tips and SE Exam Preparation

Initial preparation:

- Read *every* PDF and web link at <http://www.ncees.org>
- Know the rules. There are many.
- Read the candidate agreement.
- Bring only *approved items* in an *approved format*.
 - References, books, calculators, and the like.



Exam Test-Taking Tips and SE Exam Preparation

Question Distribution:

I. Analysis of Structures

- A. Loads (Dead, Live, Snow, Moving, Thermal, Shrinkage and Creep, Impact, Settlement, Ponding, Fluid, Ice, Static Earth Pressure, Hydrostatic, Hydraulics)
- B. Methods (Statistics, Shear and moment diagrams, Code coefficients and tables, Computer-generated structural analysis techniques, Simplified analysis methods, Indeterminate analysis methods)



SE EXAM REVIEW COURSE — August 2017

17

Exam Test-Taking Tips and SE Exam Preparation

Question Distribution:

II. Design and Details of Structures

- A. General Structural Considerations (Material properties and standards, Load combinations, Serviceability requirements)
- B. Structural Systems Integration (Specifications, quality controls and coordination with other disciplines, Constructability)
- C. Structural Steel



SE EXAM REVIEW COURSE — August 2017

18

Exam Test-Taking Tips and SE Exam Preparation

- D. Light Gage/Cold –Formed Steel
- E. Concrete
- F. Wood (Sawn beams, Glue-laminated beams, Engineered lumber, Columns, Bearing walls, Trusses, Bolted, nailed and screwed connections)
- G. Masonry
- H. Foundation and Retaining Structures

III. Construction Administration

- A. Procedures for Mitigating Nonconforming Work
- B. Inspection Methods



SE EXAM REVIEW COURSE — August 2017

19

Exam Test-Taking Tips and SE Exam Preparation

Create a game plan:

- Start study/prep at least three to six months ahead
- Use a calendar to set study topics by date
- Outline study plan with target dates to move from topic to topic by set dates and stick to it
- Maximum one week per subject



SE EXAM REVIEW COURSE — August 2017

20

Exam Test-Taking Tips and SE Exam Preparation

Suggested approach:

- Create a study area at home or at work that is away from your normal work area.
- Prior to beginning a study session, bring all the materials you will use during the exam to your study area.
- If possible, study in four-hour time blocks to mimic the time allotment for each ½ of the exam.



Exam Test-Taking Tips and SE Exam Preparation

Consider a study group (local, virtual, social network, technical society friends, blog)

- There is motivation, feedback, and support in numbers
- Establishes group study times that you are expected to attend
- Prevents procrastination

Stay on track!!!



Exam Test-Taking Tips and SE Exam Preparation

Suggested approach:

- **Spend time on each of these basic areas:**
 - General structural analysis
 - Foundations
 - Steel
 - Wood
 - Earthquake loads
 - Concrete
 - Masonry
 - Wind Loads

Exam Test-Taking Tips and SE Exam Preparation

Design Notebook:

- Prepare a Design Notebook for each area of the exam such as Steel, Masonry, Foundation Design, Wind Forces, Seismic Forces, et cetera
- Spiral bind or comb bind so no loose pages
- Replace many textbooks with consolidated design notebook pages



Exam Test-Taking Tips and SE Exam Preparation

Design Notebook:

- Bind materials in similar organization for each book
- Frequently used formulas
- List of reference book pages by name and topic
- Favorite example problems
- Lists of common assumptions for design
- Problems that you have worked ahead that are likely to be on the exam (Xerox copies)



SE EXAM REVIEW COURSE — August 2017

25

Exam Test-Taking Tips and SE Exam Preparation

All Reference Materials:

- Notate in highlighter or pen so it is apparent that nothing was penciled in during the exam or be prepared to discuss pencil marks with proctor
- Keep notebook updated and use to make you more efficient at work in the future
- No pencil marks/writing in reference books/codes that are not highlighted over or in ink unless you wish to possibly defend to a proctor. (You are allowed to write with your provided pencils in anything but your exam book)



SE EXAM REVIEW COURSE — August 2017

26

Exam Test-Taking Tips and SE Exam Preparation

Suggested approach:

- Ask for help in areas where you lack expertise or you get stuck on a certain topic (you'll find you will have many colleagues willing to assist).
- If you get frustrated, take a break and go for a walk; some fresh air and blood circulation works wonders.
- A few weeks before the exam, start taking practice tests under exam conditions.



SE EXAM REVIEW COURSE — August 2017

27

Exam Test-Taking Tips and SE Exam Preparation

Keep energy levels high during the last month of preparation:

- Eat healthy (more fruit and protein, fewer carbs)
- Exercise, exercise, exercise for energy, stamina, and endorphins
- Get a good night's sleep every night especially the night before the exam



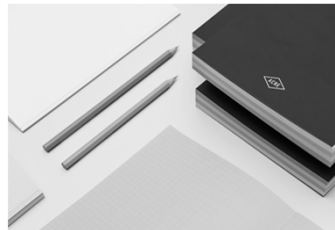
SE EXAM REVIEW COURSE — August 2017

28

Exam Test-Taking Tips and SE Exam Preparation

The week before:

- All detailed studying should be behind you
- Review all the materials and design notebooks you have prepared:
 - Ensure all tabs are secure, in order to find things quickly
 - Re-verify materials are approved/approved format
 - Eliminate all borderline resources
 - Streamline



Exam Test-Taking Tips and SE Exam Preparation

The week before, verify:

- spiral bound books are secure and not overstuffed and not prone to opening;
- no stapled or loose materials; and

See NCEES site for other restrictions.



Exam Test-Taking Tips and SE Exam Preparation

The week before:

- Finalize remaining travel plans to test location
- Pre-visit test site and locate parking
- Arrange for hotels, meals, and other necessities prior to exam day
- Eradicate all unknowns relative to the physical conditions under your control. You must not be late or you will not participate.



Exam Test-Taking Tips and SE Exam Preparation

Assemble tools the night before:

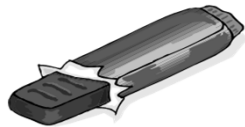
- A non-beeping watch or clock to monitor time
- Two approved calculators or spare batteries
- Straight edges to draw details/look at reference line items



Exam Test-Taking Tips and SE Exam Preparation

Assemble tools the night before:

- Bound design notebooks
- Tabbed reference books. Tab at example problems/reference.
- High energy snacks/fruit. (Remember, you need to move away from exam book to eat/drink.)



Exam Test-Taking Tips and SE Exam Preparation

Assemble tools the night before:

- Bring layered clothes for hot/cold test environments or changing conditions.
- Site location can change on consecutive days. Find new building before you leave day 1.
- No headphones, iPods, music, or recording devices (study under similar conditions to test)

Exam Test-Taking Tips and SE Exam Preparation

Morning of:

- Leave the cellphone behind
- Eat a good breakfast (protein time!)
- Arrange for or bring lunch for a relaxed break
- Move all boxes of reference materials to car
- Arrive 30 minutes earlier than you think you need to be there



SE EXAM REVIEW COURSE — August 2017

35

Exam Test-Taking Tips and SE Exam Reference Notebooks and Materials

Agenda

- Overview
- Preparation
- **Reference notebooks and materials**
- Test-taking hints and highlights
- NCEES SE Exam specific information



SE EXAM REVIEW COURSE — August 2017

36

Exam Test-Taking Tips and SE Exam Reference Notebooks and Materials

Reference materials and organization:

- Codes
 - Bring only edition allowed on NCEES website
 - Bring IBC, ASCE 7, AASHTO, Steel, Concrete, Masonry, and Wood, and Cold Formed codes at a minimum. Manuals such as PCI are valuable.
 - Mark up codes in advance (**In Pen**). Consolidate small overriding requirements from IBC into material codes by noting in margins.



SE EXAM REVIEW COURSE — August 2017

37

Exam Test-Taking Tips and SE Exam Reference Notebooks and Materials

Reference materials and organization:

- Morning session
 - Building designers should take AASHTO code and principle references/lookups
 - Bridge designers should take IBC, ASCE 7, and any material codes in their area of strength
- Morning questions are short enough that cross designing bridge/buildings is worth the effort and results.



SE EXAM REVIEW COURSE — August 2017

38

Exam Test-Taking Tips and SE Exam Reference Notebooks and Materials

Reference materials and organization:

- Referenced materials must be bound and remain bound during the exam.
 - Bound refers to (1) materials permanently bound, as by stitching or glue, and (2) materials securely fastened in their covers by fasteners that penetrate all papers.
 - Loose paper may be bound with ring binders, brads, plastic snap binders, spiral-bound notebooks, and screw posts, but not with staples.
 - Writing tablets and legal pads are not allowed. You may tab reference books before the exam with sticky notes and flags, but pads of sticky notes and flags are not permitted in the exam room.



SE EXAM REVIEW COURSE — August 2017

39

Exam Test-Taking Tips and SE Exam Reference Notebooks and Materials

Reference materials and organization:

- Don't bring too many references
 - Limit textbooks that may have one or two problems that might occur
 - Put worked problems in design notebook instead
 - Take exam prep texts with relevant examples that are relevant and that you understand
 - Consolidate into streamlined design notebook



SE EXAM REVIEW COURSE — August 2017

40

Exam Test-Taking Tips and SE Exam Hints and Highlights

Agenda

- Overview
- Preparation
- Reference notebooks and materials
- **Test-taking hints and highlights**
- NCEES SE Exam specifics



SE EXAM REVIEW COURSE — August 2017

41

Exam Test-Taking Tips and SE Exam Hints and Highlights

On Exam Day:

- After everyone is seated, a proctor will begin reading the exam instructions.
- Once the proctor begins reading the instructions, examinees will no longer be admitted into the exam room.
- You will receive an NCEES pencil with an eraser to use during the exam.
- Using a non-NCEES writing instrument or eraser to complete any portion of the exam may lead to dismissal from the exam and/or invalidation of your exam results.



SE EXAM REVIEW COURSE — August 2017

42

Exam Test-Taking Tips and SE Exam Hints and Highlights

- **Listen** to the exam instructions **carefully.**
- Do not tear out or remove loose papers from exam book or references during test.
- Do not write in **ANYTHING** but the exam book. Keep pencil away from references.
- Know the rules on the NCEES site and in the agreement and follow them to the letter.



SE EXAM REVIEW COURSE — August 2017

43

Exam Test-Taking Tips and SE Exam Hints and Highlights

Breaks

- You may request to take a break at any time by raising your hand and waiting for a proctor to assist you.

Exit Procedures

- Raise your hand to notify the proctor when you have completed the exam. The proctor will collect the exam book and answer sheet before dismissing you. Once dismissed, you will not be permitted to re-enter the exam room. If you complete the exam within 15 minutes of exam time expiring, you must remain at your seat until the exam ends and all examinees are dismissed from the exam room.



SE EXAM REVIEW COURSE — August 2017

44

Exam Test-Taking Tips and SE Exam Hints and Highlights

Exam is to test knowledge.

- Not to ask trick questions—don't go there
- Not to confuse you—exam has been taken by pre-testers of similar experience
- Not to “anything else.” Examiners want you to pass if you are qualified.

Always assume the most straightforward solution is the correct one.

Website “rules” over NCEES example problems. (Website wins conflicts.)



SE EXAM REVIEW COURSE — August 2017

45

Exam Test-Taking Tips and SE Exam Hints and Highlights

Bring multiple knowledge areas together:

- Material design will be combined with force development.
- Anchorage forces and designs will be combined with material component reactions.
- Drag strut designs will be combined with wall or roof designs of materials.

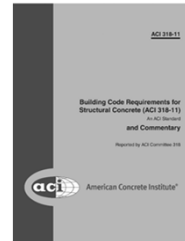


SE EXAM REVIEW COURSE — August 2017

46

Exam Test-Taking Tips and SE Exam Hints and Highlights

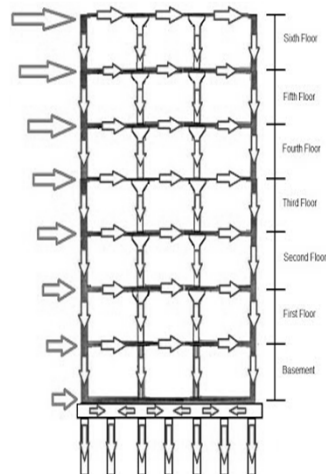
Most problems will look for overall code knowledge that combines building code with material codes—not stand alone chapters.



Exam Test-Taking Tips and SE Exam Hints and Highlights

Always figure out the load path first!

- Outline entire load path (gravity or lateral) before starting to generate calculations
- If the load path is correct and code compliant, all pieces of the solution will fall into place
- Practice this ahead of time on example problems
- Account for connections at force transfer locations



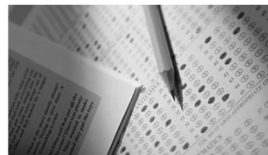
Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- Multiple-choice format
- 40 questions
- Covers both buildings and bridges

Quickly skim all questions and rate them:

1. Area of strength
2. Some knowledge
3. Little knowledge/no clue



Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- Work rated problems in order of YOUR strength of knowledge and experience and leave “no clue” problems for last
- Check remaining time after each rating group is completed, 1 through 3, not after every problem
- Adjust your pace accordingly
- Morning questions are machine scored based on selected answer, so no partial credit; ensure you answer every question as there is **no penalty for a wrong answer!**

Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- Read each current question **twice**
 - Once for what you think you see
 - Once for what they are specifically asking for
- Determine what they are testing. **Don't make assumptions.** Don't reinterpret question.
- Look for multiple parts to the question/answer that combine for one multiple-choice answer



Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day)

- Read the question **before** you look at the answers.
- Overview the question for code requirements that are obvious or can be looked up.
- Eliminate answers that are obviously incorrect, wrong order of magnitude, noncode compliant, or do not need calculations to eliminate.
- Check units if your answer is not a choice.

Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- If selection in answers includes “all of the above”:
If you are certain one of the answers is incorrect, do not choose “all of the above.”
- If selection in answers includes “none of the above”:
If you are certain one of the answers is correct, do not choose “none of the above.”

Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- Notate each problem as you finish it
 - A. Confident answer is correct
 - B. Confident answer is possibly one other choice
 - C. Guessed/low confidence in solution



Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- If you have time left:
 - Look over your test and revisit in order:
 - A-rated: Skip entirely. Chances are your first selection is correct.
 - B-rated: Look at it a different way. Can anything be narrowed down to get it to A-rated? Check math, units, or assumptions to change it to A-rated, if possible.
 - C-rated: Don't revisit—skip. First guess has more chance of being correct.

Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- If you have time left:
 - Look over the questions/answers
 - Make sure that you have answered all the questions
 - Only change an answer if you misread or misinterpreted the question. **The first answer is usually the correct one.**

Exam Test-Taking Tips and SE Exam Hints and Highlights

Morning questions (either day):

- Pure hints
 - A positive choice is more likely to be true than a negative one.
 - Usually the correct answer is the choice with the most information.

www.testtakingtips.com

Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

- Most of the morning tips apply including:
 - Quickly skim all questions and rate them
 1. Area of strength
 2. Some knowledge
 3. Little knowledge/no clue



Read all problems first and work them in the order of your rating.

Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

- Typical afternoon questions will have several parts.
- Completely work entire problems in your areas of strength
 - If there is a part of a problem that you struggle on, skip it and come back later.
 - It is better to spend time demonstrating full knowledge on an area and come back to the more difficult parts later.

Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

- Really understand the design and analysis requested
- Do not overlook parts of the question asking you to:
 - find things in the codes and state requirements,
 - demonstrate you know where things are in the codes, or
 - apply or reference a particular code paragraph.

Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

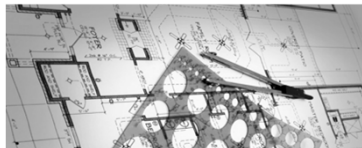
- Quickly outline the steps of the solution based on the problem statement
- At end of problem, check off outline list to make sure you did not miss an easy reference or lookup



Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

- Do not use time to:
 - rewrite the problem or its requirements,
 - write an introduction or executive summary, or
 - write a conclusion unless asked for.
- Do draw all requested sketches



Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

- Draw a quick non-requested sketch if it will demonstrate knowledge of requested information
- Do include the following, where applicable:
 - Load diagrams
 - Moment and shear diagrams

Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

- Closely budget your time.
- Check time after you are half complete within each problem.
- Do not spend time erasing. Cross out information that you intend to delete.



Exam Test-Taking Tips and SE Exam Hints and Highlights

Afternoon essay problems (either day):

- State where your information/parameter was obtained ***when not obvious***
 - References and tables, so they can be looked up and checked
 - IBC, ASCE 7, AASHTO—Referenced material codes
 - **Textbook commonly used table or formula**
 - Shortcut tables in codes versus equations *unless* stated that you must use equations

Exam Test-Taking Tips and SE Exam Specific Info

Agenda

- Overview
- Preparation
- Reference Notebooks and Materials
- Test-taking Hints and Highlights
- **NCEES SE Exam Specific Info**

Design Standards: Effective beginning with April 2017 Exams

- **AASHTO** *AASHTO LRFD Bridge Design Specifications, 7th edition, 2014.* Washington, DC: American Association of State Highway & Transportation Officials.
- **ACI 318** *Building Code Requirements for Structural Concrete, 2011.* Farmington Hills, MI: American Concrete Institute.
- **AISC** *Steel Construction Manual, 14th edition,* American Institute of Steel Construction, Inc., Chicago, IL.
- **AISC** *Seismic Design Manual, 2nd Edition,* American Institute of Steel Construction, Inc., Chicago, IL.
- **AISI** *North American Specification for the Design of Cold-Formed Steel Structural Members, 2007 edition with Supplement No. 2 (2010),* American Iron and Steel Institute, Washington, DC.



SE EXAM REVIEW COURSE — August 2017

69

Design Standards: Effective beginning with April 2017 Exams

- **ASCE 7** *Minimum Design Loads for Buildings and Other Structures, 2010, 3rd Printing.* Reston, VA: American Society of Civil Engineers.
- **IBC** *International Building Code, 2012 Edition* (without supplements). Falls Church, VA: International Code Council.
- **NDS** *National Design Specification for Wood Construction ASD/LRFD, 2012 Edition and National Design Specification Supplement, Design Values for Wood Construction, 2012 Edition.* American Forest & Paper Association, Washington, DC.



SE EXAM REVIEW COURSE — August 2017

70

Design Standards: Effective beginning with April 2017 Exams

- **NDS** *Special Design Provisions for Wind and Seismic with Commentary*, 2008. American Forest & Paper Association, Washington, DC.
- **PCI Design Handbook: Precast and Prestressed Concrete**, 7th edition, 2010. Precast/Prestressed Concrete Institute, Chicago, IL.
- **TMS 402/602 Building Code Requirements and Specifications for Masonry Structures** (and related commentaries), 2011. The Masonry Society, Boulder, CO; American Concrete Institute, Detroit, MI; and Structural Engineering Institute of the American Society of Civil Engineers, Reston, VA.

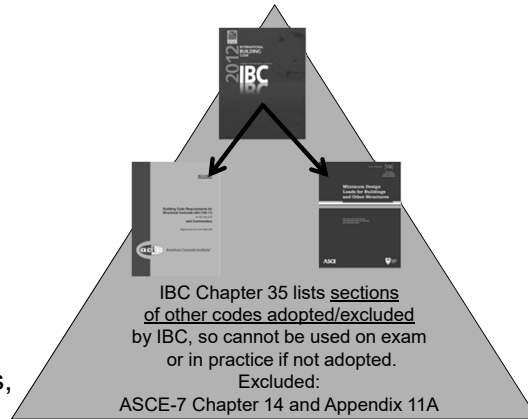
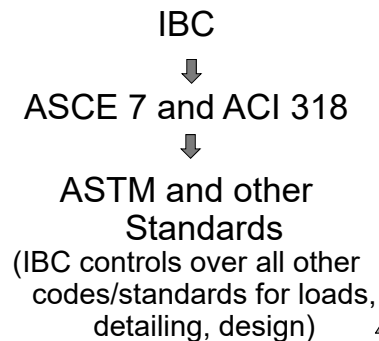


Design Standards: Effective beginning with April 2017 Exams

- **Standards footnotes:**
 - Solutions to exam questions that reference a standard of practice are scored based on this list.
 - Solutions based on other editions or standards **will not receive credit.** All questions use the U.S. Customary System (USCS) of units.

Controlling Code Precedence

Order of precedence:



Controlling Code Precedence

- IBC Chapter 16, Structural Design, overrides ASCE 7 and Material Code load requirements.
- Use IBC Load Cases, not ASCE-7.
- IBC Chapters override Material Codes
Example: IBC Chapter 19, Concrete, overrides all ACI 318 concrete design and detailing requirements.
- IBC Chapter 17, Structural Tests and Inspections, overrides all material code and ASCE 7 requirements for tests and inspection and observation requirements.



Need More Information?

Reminder: The NCEES website provides additional details on the following:

- Exam topics, policies, and dates
- Design standards
- Permitted calculators and other items
- Exam scoring

We strongly recommend you visit www.ncees.org.



SE EXAM REVIEW COURSE — August 2017

75

Questions?

- **Take the time to organize**
- **Study efficiently**
- **Stay healthy**
- **Stay relaxed during test**
 - Deep breathing as a fall back
- **Good luck!**
- **Bonus Information: Special Study Material**
thomas.grogan@haskell.com



SE EXAM REVIEW COURSE — August 2017

76