

## CIVE 3205: Material Covered, 2017

Topic	S16 Sec.	HB Page	K&G Sec.	Examples	Problems
Definitions (used in S16-14)	3.1	1-24 to 1-27	–	–	
Symbols (used in S16-14)	3.2	1-27 to 1-34	–	–	
Nomenclature (used in HB)	–	<i>viii</i> to <i>xi</i>	–	–	
Metric Shape Designations	–	<i>vii</i> , 6-24 to 6-35	2.7	–	
Plate thickness, preferred	–	6-154	–	–	
Steel Designation and Properties	–	6-5 to 6-14	2.2 to 2.6	–	
HSS Steel Properties	–	6-20 to 6-21	–	–	
Resistance Factors	13.1	1-52, 2-30	1.6, 3.2		
Axial Tension	13.2	1-52, 2-30, 2-31	Ch. 3	KG3.1, KG3.2, KG3.3, KG3.4, <u>T-5</u> , <u>T-6</u> , <u>Bolt-2</u>	
Gross and Net Areas	12	1-49 to 1-52, 2-26 to 2-29	3.2, 3.3, 3.6	<u>T-1</u> , <u>T-2</u> , <u>T-3</u> , <u>T-4</u> , <u>Bolt-2</u>	
Max. Slend. Ratios for Tens. Memb.	10.4.2.2	1-47, 2-23	–	–	
Block Shear	13.11	1-65, 2-50 to 2-53	3.4	KG3.3, <u>T-7</u> , <u>T-8</u> , <u>Bolt-2</u> , <u>Bolt-3</u>	
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Bolt Dimensions	–	6-165 to 6-167	–	<u>Bolt-1</u>	
Bolt usual gauges	–	6-173	–		
Bolt Installation	23.2, 23.3, 23.4	1-116 to 1-118, 2- 106, 2-107	–		
Pretensioned high-strength bolts	23.7	1-118, 2-106, 2-107	9.6		

Topic	S16 Sec.	HB Page	K&G Sec.	Examples	Problems
Fillet Welds in shear	13.13.1, 13.13.2.2	1-67 to 1-68, 2-58, 2-59	9.4, 9.8	KG9.2a, KG9.2b, <u>Weld-1</u>	<u>PS-1</u>
Welding practice, size limits of fillet welds	–	6-186, 6-187	–		
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Weld metal properties, tensile strength	–	3-42 (Table 3-22), 3-43	9.8		
Welds, typical sizes	–	3-42 (Table 3-23)	–		
Weld Balancing, Angle tension members	–	–	–	<u>T-10</u>	
Axial compression, doubly symmetric shapes	10.4.2.1, 13.3.1, Table 1	1-47, 1-52, 2-31, 2-33	4.1 to 4.4.1, 4.5 to 4.7	K&G 4.1, 4.2, 4.3, 4.6; <u>C1</u>	
Use of column tables	13.3.1	4-13 to 4-100	–	HB 4-23	
Elastic local buckling	13.3.5	2-34	–	<u>C2</u>	
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Beam-Columns, Class 1&2 I-Shaped Sections	13.8.1, 13.8.2, 10.3.2	2-41–2-47	8.1, 8.2, 8.4,	K&G 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, HB 4-111–4-113, <u>BC-1</u> , <u>BC-2</u> , <u>BC-3</u>	<u>BCPS1</u>

## Notes

1. 'HB' refers to the CISC Handbook of Steel Construction, 11<sup>th</sup> ed.

2. 'K&G' and 'KG' refer to Kulak and Grondin, *Limit States Design in Structural Steel*, 10<sup>th</sup> ed.
3. Examples and Problems *not* prefixed with 'KG' or 'HB' refer to those found in the [extra notes website](http://holtz3.cee.carleton.ca/notes/3205/), <http://holtz3.cee.carleton.ca/notes/3205/>.
4. Handbook (HB) references in chapter 2 are to the *Commentary* for S16-14. This is important material and you must read it at least once to familiarize yourself with it.
5. Not every section has been explicitly covered in lecture. Those that haven't been are so similar to material that has been covered that it is expected you will have no trouble with them.
6. This material is all relevant for the final examination of April, 2017.
7. Please report any errors.

## Revisions

- \$Id: study-guide-3.tex 8230 2017-04-18 19:33:58Z nholtz \$ - added topics to year end.
- Id: study-guide-2.tex 8149 2017-03-17 15:52:24Z nholtz - added topics to Midterm-2.
- Id: study-guide-1.tex 7971 2017-01-19 04:44:39Z nholtz - original version.