# CIVE 3204: Introduction to Structural Design
## 2016 Fall

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Details</th>
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</thead>
</table>
| 1-2  | Building Systems and Structural Form |  - structural form, linear members, planar systems, shell structures, tension structures.  
  - types of buildings.  
  - structural framing for buildings, industrial buildings, multistory buildings. |
| 3-4  | Design Philosophy and Design Process |  - limit states design.  
  - codes and standards.  
  - design process.  
  - loads, load combinations and load factors; principal loads and companion loads. |
| 5-6  | Dead and Live Loads |  - use and occupancy.  
  - tributary area.  
  - live load reduction factor. |
| 7-8  | Snow, Ice and Rain Loads |  - basic snow load, accumulation, drift.  
  - load distribution and combinations.  
  - ponding. |
| 9-10 | Wind Loads |  - reference velocity pressure.  
  - load distribution and statically equivalent forces. |
| 11-12| Earthquake Loads |  - objectives of earthquake-resistant design.  
  - seismic regionalization.  
  - evaluation and distribution of lateral seismic forces. |

## Required Texts
Reference Texts


Marking Scheme

<table>
<thead>
<tr>
<th>Assignments (homework and PA)</th>
<th>25%</th>
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</thead>
<tbody>
<tr>
<td>Mid-Term examination, November 7, 2016</td>
<td>25%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</tbody>
</table>

Instructor

Professor N.M. Holtz, 3368ME, x5797, nholtz@cee.carleton.ca

Teaching Assistants

*Keelson, H.; Arjmand, H.; Soroushnia, S.; Turco, M.*

Web Site

[https://culearn.carleton.ca/](https://culearn.carleton.ca/)

Notes

- The weights shown in the marking scheme above are fixed. No adjustment is made for better or worse performance on any component.
- Submitted work (homework and PA assignments) must meet the specified standards for neatness, presentation and organization. Substandard work will be identified when the assignment is submitted, after which the perpetrator has one (1) day to resubmit for no more than 75% marks. Otherwise, the assignment will be ungraded and the mark zero (0).

Academic Integrity

Violations of academic integrity will not be tolerated. Such violations include, but are not limited to, plagiarism, unauthorized resubmission of work, unauthorized co-operation or collaboration, misrepresentation, impersonation, obstruction and interference, or disruption of classroom activities, periods of instruction, or examinations. It is expected that the student will read and understand Section 12.0 of the Undergraduate Calendar ([https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/academicintegrity/](https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/academicintegrity/)) and the published statement on Academic Integrity ([http://carleton.ca/senate/wp-content/uploads/Academic-Integrity-Policy1.pdf](http://carleton.ca/senate/wp-content/uploads/Academic-Integrity-Policy1.pdf)).
Academic Accommodation

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). Requests made within two weeks will be reviewed on a case-by-case basis. After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website (www.carleton.ca/pmc) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

N.M. Holtz, September 6, 2016 15:13:45