

# CSA-S16-09 – THE NEW DESIGN OF STEEL STRUCTURES STANDARD

Saskatoon – November 17, 2009  
Calgary – November 18, 2009  
Edmonton – November 18, 2009  
Vancouver – November 19, 2009  
Toronto – November 19, 2009  
Winnipeg – November 20, 2009  
Ottawa – November 24, 2009  
Fredericton – November 25, 2009  
Moncton – December 1st, 2009  
St. John's – December 2nd, 2009  
Montreal – December 3rd, 2009  
Montreal – December 8, 2009

## INSTRUCTOR

### Mike I. Gilmor, M.Eng., P.Eng., FCSCE

Vice-Chair, CSA S16 Technical Committee  
Member of the Standing Committee on Structural Design  
Former President, CISC  
Chairman, Canadian Steel Construction Council  
Former Editor, CISC's Handbook of Steel Construction

## VENUES

### SASKATOON

November 17, 2009  
TCU Place – Saskatoon's  
Arts & Convention Centre  
Gallery Suite I & II  
35 - 22nd Street East  
Saskatoon, SK S7K 0C8  
306-975-7777

### CALGARY

November 18, 2009  
Sandman Hotel City  
Centre – Great Room I & II  
888 7th Ave. SW  
Calgary, AB T2A 6J6  
403-237-8626

### EDMONTON

November 19, 2009  
The Coast Edmonton  
Plaza Hotel – Drayton  
Valley Ballroom  
10155 105 Street  
Edmonton, AB T5J 1E2  
780-423-4811

### VANCOUVER

November 20, 2009  
The Coast Plaza Hotel  
& Suites–Nelson Room  
1763 Comox Street  
Vancouver, BC V6G 1P6  
604-688-7711

### TORONTO

November 24, 2009  
Four Points by Sheraton –  
Kingston Room  
6257 Airport Road  
Mississauga, ON L4V 1E4  
905-678-1400

### WINNIPEG

November 25, 2009  
Holiday Winnipeg South –  
Conference Theatre Room  
1330 Pembina Highway  
Winnipeg, MB R3T 2B4  
204-452-4747

### OTTAWA

November 26, 2009  
Chimo Hotel –  
Franklin Room  
1199 Joseph Cyr St.  
Ottawa, ON K1J 7T4  
613-744-7845

### FREDERICTON

December 1st, 2009  
The Wu Conference  
Centre – Aitken Room  
University of New  
Brunswick  
6 Duffie Drive  
Fredericton, NB E3B 5A3  
506-453-5135

### MONCTON

December 2nd, 2009  
Université de Moncton –  
Local 226, CEPS  
Campus de Moncton  
Moncton, NB E1A 3E9  
506-858-4759

### ST. JOHN'S

December 3rd, 2009  
The Battery Hotel and  
Conference Centre –  
Riverhead Room  
100 Signal Hill Road  
St. John's, NL A1A 1B3  
709-576-0040

### MONTREAL

December 8, 2009  
Hôtel Maritime Plaza –  
Salle Le Grand Mât  
1155, rue Guy  
Montréal, QC H3H 2K5  
514-932-1411  
Formation donnée en  
anglais

## DESCRIPTION

This one-day seminar will be a thorough examination of the newest edition of CSA Standard S16-09 to be the reference structural steel design standard for the NBCC 2010. The 2009 Edition contains numerous additions to the Standard that deal with new seismic systems (e.g., restrained buckling bracing systems, protected zones), design of single angles in various situations, more detail for laterally unrestrained beams, new material for infill plates with perforations, and new Annexes on topics such as Design to prevent brittle fracture and Structural design for fire conditions (now a procedure permitted by the NBCC).

This CSA Standard is now available from [www.shopcsa.ca](http://www.shopcsa.ca) at the price of \$175 (paper copy) and \$160 (PDF file). Participants will obtain a 15% discount. Please write to [mahmoud@csce.ca](mailto:mahmoud@csce.ca) for your discount code.

**Who Should Attend** – Structural engineers, designers, civil engineers designing in steel, detailers, fabricators and educators.

## AGENDA

This course will provide a thorough clause-by-clause review of the CSA Standard S16-09 with particular emphasis on what's new, what's changed, and what has remained the same.

### For example:

- Emphasis on practical aspects of changes in this edition that will affect your designs
- Changes impacting the design of laterally unsupported beams explored
- Changes impacting the design of members subject to tension and block shear defined
- Discussion of new clause dealing with connections with welds and bolts in same shear plane
- Why are there new requirements for column anchorages
- New buckling restrained bracing system for seismic lateral load resisting systems introduced to try to match the compressive and tensile resistances of the brace
- Introduction of new requirements for single angles in compression
- The concept of "protected zones" explained
- Steel plate shear walls now have design provisions to handle penetrations through the infill panels
- Requirements for structural documents explained
- Introduction of new guidance to reduce risk of brittle fracture
- Rationale behind the factor,  $R_y$ , applied to the specified yield stress of steel
- Discussion of new Annex which has been added to provide guidance for design under fire conditions

This course is endorsed by



[www.csce.ca](http://www.csce.ca)

## CSA-S16-09 REGISTRATION



www.csce.ca

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Saskatoon – November 17, 2009 | <input type="checkbox"/> Toronto – November 24, 2009      | <input type="checkbox"/> Moncton – December 2nd, 2009    |
| <input type="checkbox"/> Calgary – November 18, 2009   | <input type="checkbox"/> Winnipeg – November 25, 2009     | <input type="checkbox"/> St. John's – December 3rd, 2009 |
| <input type="checkbox"/> Edmonton – November 19, 2009  | <input type="checkbox"/> Ottawa – November 26, 2009       | <input type="checkbox"/> Montreal – December 8, 2009     |
| <input type="checkbox"/> Vancouver – November 20, 2009 | <input type="checkbox"/> Fredericton – December 1st, 2009 |  |

7:45 Registration – 8:30 Start of session – 10:00 Coffee Break – 12:00 Lunch – 3:00 Coffee Break

Name \_\_\_\_\_ Date \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

E-mail \_\_\_\_\_ Tel \_\_\_\_\_ Fax \_\_\_\_\_

CSCE Membership Number \_\_\_\_\_

(1) My Professional Specialty is \_\_\_\_\_

(2) At the end of the session, I will evaluate it as a success if it responds to my following objective(s)  
\_\_\_\_\_

**I authorize CSCE to send my participation record to EIC for CE units registration.  YES  NO**

### PAYMENT

Please check as appropriate to you. Dates refer to receipt of registration by CSCE. Payment must be received to confirm your place. Refreshments, lunch and course materials are included.

Registration Fees (incl. tax)	Early Registration On/before October 27, 2009					Open Registration After October 27, 2009				
	ON/AB/BC	MB	SK	NB/NL	QC	ON/AB/BC	MB	SK	NB/NL	QC
Province										
CSCE Member	\$367.50	\$393.22	\$385.87	\$396.90	\$395.06	\$420.00	\$449.40	\$441.00	\$453.60	\$451.50
Newly Enrolling CSCE Member	\$493.50	\$528.04	\$518.17	\$532.98	\$530.51	\$546.00	\$584.22	\$573.30	\$589.68	\$586.95
Non-CSCE Member	\$472.50	\$505.57	\$496.12	\$510.30	\$507.93	\$525.00	\$561.75	\$551.25	\$567.00	\$564.37

**GROUP** (5 and more) and student rates are available upon request.

**JOIN CSCE** now at the introductory fee of \$95 + taxes and pay the CSCE member fee at all CSCE activities held during the coming year.

**Please e-mail, fax or mail this form along with your payment to:**

Mahmoud Lardjane  
Programs Manager  
Canadian Society for Civil Engineering  
4920 de Maisonneuve Blvd W., Suite 201  
Montreal, QC H3Z 1N1  
E-mail: mahmoud@csce.ca  
F: (514) 933-3504

Any registrant may substitute another person eligible for the same fee at any time. Full refund will be issued when a written notice of withdrawal is received 2 weeks before the event. An administrative fee is deducted at this time. We regret that there will be no refunds issued past this date. In the event that CSCE must cancel the program, the participant will receive a full refund for workshop fees.

Registrant Signature \_\_\_\_\_ Registration Date \_\_\_\_\_

**Method of Payment** (Check as appropriate to you)

VISA  MASTERCARD  CHEQUE ENCLOSED (payable to Canadian Society for Civil Engineering)

Credit Card Number \_\_\_\_\_ Expiry Date \_\_\_\_\_

### CSCE MEMBERSHIP APPLICATION

Name \_\_\_\_\_ Date of Birth \_\_\_\_\_ Sex \_\_\_\_\_

Indicate Desired Mailing Address

**Home Address** \_\_\_\_\_

T \_\_\_\_\_ F \_\_\_\_\_ E-mail \_\_\_\_\_

**Employer** \_\_\_\_\_ Bus. Title \_\_\_\_\_

Bus. Address: \_\_\_\_\_

T \_\_\_\_\_ F \_\_\_\_\_ E-mail \_\_\_\_\_

Professional Registration / Memberships Held Province \_\_\_\_\_

Are you a member of any other Engineering Societies? If so, give details:

SOCIETY \_\_\_\_\_ PROVINCE(S) \_\_\_\_\_ MEMBERSHIP GRADE \_\_\_\_\_

**ACADEMIC RECORD/WORK EXPERIENCE** (Please submit C.V. & photocopies of certificates or transcripts)

**TECHNICAL DIVISION MEMBERSHIPS** – Select up to three fields in order of preference, (i.e. 1,2,3)

- |                            |                                   |                    |                           |
|----------------------------|-----------------------------------|--------------------|---------------------------|
| ___ Cold Regions           | ___ Eng. Mechanics/Materials Eng. | ___ Hydrotechnical | ___ Computer Applications |
| ___ Structural             | ___ Transportation                | ___ Construction   | ___ Environmental         |
| ___ Infrastructure Renewal | ___ Sustainable Dev.              |                    |                           |

#### MEMBERSHIP GRADES

**Member:** holds a recognized educational qualification in Civil Engineering at the level recognized by a provincial Association of Professional Engineers and whose competence has been established by at least four years of professional experience. **Associate Member:** holds an engineering degree from a recognized university but has not yet acquired the qualifications for member status related to the extent of professional practice.

**Technologist Member:** graduate of an approved Canadian Civil Engineering Technologist Program or its equivalent and is certified by a CSCE approved association. **Affiliate Member:** graduate of a university or other CSCE approved institution working in the field of civil engineering.

Signature \_\_\_\_\_ Date \_\_\_\_\_