

## **1. Aggregate Quality Control Testing Course**

The course has been developed for contractors, consultants and aggregate producers involved in material sampling, process control and quality control testing. It is also an excellent course for personnel who want to pursue a career in material testing.

Attendees will learn about latest OPSS requirements, special provisions, Ministry of Transportation laboratory testing procedures (LS Manual), Hands on sampling and laboratory testing for granular base, granular sub-base, hot-mix asphalt & concrete aggregates.

This course covers the requirement of Canadian Council of Independent Laboratories CCIL Type C and D laboratory and technician certifications.

### **Subjects Include:**

Sampling, Sample Preparation, Moisture Content, Grain Size Analysis, Proctor Density, Asphalt Coated Particles, Relative Density of Coarse & Fine Aggregates, Soundness Test, Percent Crushed Particles, Percent Flat & Elongated Particles, Freeze & Thawing of Coarse Aggregates, Micro Deval Abrasion for Coarse & Fine Aggregates.

### **Instructors:**

Mr. M. Ahmed, P. Eng, SNC Lavalin GEM Ontario Inc.  
Plus SNC Lab Team: Zlatko, P.Eng., Jimmy, & Nick

## **2. HMA (Marshall & Superpave) Technology Courses**

This detailed three-day program provides information & **hands-on practical training** of the Superpave & Marshall technology and test procedures.

The course will be presented by professionals with expertise in manufacture of PGAC binder, material selection, mix design, production and placement of Superpave mixes. It has been specifically developed for those actively involved in material specification, and QC/QA testing, i.e. Owners, Agencies, Consultants and Contractors.

The **Superpave training** course is highly recommended by (CCIL) Canadian Council of Independent Laboratories for Certified HMA Laboratory Asphalt Technician Program (HMAT). (**Separate certification program administered by CCIL**).

### **Subjects Include:**

(PGAC) Performance Grade Binder Specification & Selection, Highlights of Latest OPSS Requirements, Aggregates Consensus Properties & Criteria, Material Selection & Traffic Criteria, Superpave Gyrotory Equipment, Superpave Mix Design process, Moisture Susceptibility testing, RAP in Superpave, & Superpave Project Experience-Production & Placing

### **Instructors:**

Mr. M. Ahmed, P. Eng, SNC Lavalin GEM Ontario Inc.  
Mr. Sina Varamini, MASC., EIT., McAsphalt Industries Limited  
Mr. Fernando Magisano, K.J. Beamish Construction Co.  
Plus SNC Lab Team: Zlatko, P.Eng. & Nick Sibilja.

## **3. Pavement Design Course**

The goal of this 1-day workshop is to provide up-to-date information for those designing, constructing, and managing asphalt pavements. This will include the application of the MTO Routine (Empirical), the Asphalt Institute Method, and 1993 AASHTO Flexible Pavement Design Guide. An Introduction to the new Mechanistic-Empirical Pavement Design Guide (MEPDG) will also be presented.

### **Who Should Attend?**

The workshop is intended for managers and engineers, consultants, and others who have responsibility for pavement design, construction, maintenance and rehabilitation of asphalt roads

### **Highlighted Topics**

Pavement Thickness Design  
Overlay Design  
Pavement Evaluation  
Non-Destructive Testing  
Maintenance and Rehabilitation Methods  
Materials and Construction

**Instructors:** Mr. M. Ahmed, P.Eng., SNC Lavalin GEM Ontario Inc.  
Dr. Prabir Das, Ph.D., SNC Lavalin GEM Ontario Inc.

## **4. PG Binder Technology Course**

This course is designed for the personnel who are responsible for asphalt testing, materials approval, specification and quality control. Knowledge of the PGAC specification will also benefit Owners, Agencies, Consultants, Contractors and College educators/students.

**Scared of MSCR?** Learn the test procedures, calculations and criteria involved with grading asphalt binders in the Performance-Graded Asphalt Cement (PGAC) specification. Develop and improve your understanding with practical demonstration of lab testing including sample preparation and testing using the rotational viscometer, dynamic shear and bending beam rheometers, direct tension tester and "PG plus" tests such as MSCR, extended BBR and DENT. Leave this course with basic knowledge on PGAC and the ability to review and discuss test results with confidence.

**Subjects Include:** PGAC specification and selection. PG plus tests, Highlights of latest OPSS requirements, Ministry of Transportation laboratory testing procedure, AASHTO standards, PGAC binder testing equipment (i.e. Rotational Viscometer, DSR, BBR, RTFOT and PAV), Sampling, Sample preparation, PGAC tests and report review.

**Instructors:** Mohammed Ahmed, P.Eng., SNC Lavalin GEM Ontario Inc.  
Dr. Prabir Das, Ph.D., SNC Lavalin GEM Ontario Inc..  
Plus SNC Lab Team: Zlatko, P.Eng. & Prabhdeep



SNC • LAVALIN

## 2017 Courses Registration Form

Please contact Maria Fernandes at 905.851.0090 or 1.800.819.8833 for further details and enrolment, or fax the form at 905.851.0091 / email at mfernandes@dbaeng.com

Course Registering For:

- Aggregate Quality Control Course** (Fees: \$850 + HST)  
3-Days Course – March 29, 30 and 31, 2017 (Wednesday, Thursday and Friday)
- HMA (Marshall & Superpave) Technology Course** (Fees: \$ 990 + HST)  
3-Days Course - April 4, 5, and 6, 2017 (Tuesday, Wednesday and Thursday)  
3-Days Course - April 11, 12, and 13, 2017 (Tuesday, Wednesday and Thursday)
- Pavement Design Course**  
(Fees: \$ 390 + HST)  
1-Day Course - April 7, 2017 (Friday)
- PG Binder Technology Course**  
(Fees: \$ 390 + HST)  
1-Day Course - April 10, 2017 (Monday)

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

Method of Payment: Cheque

Course binder includes handouts, notes, references and relevant Asphalt Institute manual.

Please note that course enrolment is limited and is on first come first basis.



SNC • LAVALIN

SNC-Lavalin GEM Ontario Inc.  
401 Hanlan Road  
Vaughan, Ontario, Canada, L4L 3T1  
905.851.0090 905.851.0091

## Presents Hands-On Technology Courses

(14<sup>th</sup> Year of Presentation & Training)

### 1. Aggregate Quality Control Testing Course

- March 29, 30, and 31, 2017 (Wednesday, Thursday and Friday)  
3-Days Course – 8:30 am – 4:30 pm (Fees: \$850 + HST)

### 2. HMA (Marshall & Superpave) Technology Training Course

- April 4, 5, and 6, 2017 (Tuesday, Wednesday and Thursday)
- April 11, 12, and 13, 2017 (Tuesday, Wednesday and Thursday)  
3-Days Course – 8:30 am – 4:30 pm (Fees: \$990 + HST)

### 3. Pavement Design Course

- April 7, 2017 (Friday)  
1-Day Course – 8:30 am – 4:30 pm (Fees: \$390 + HST)

### 4. PG Binder Technology Course

- April 10, 2017 (Monday)  
1-Day Course – 8:30 am – 4:30 pm (Fees: \$390 + HST)

For more information please visit

[www.dbaeng.com](http://www.dbaeng.com)



Infrastructure

