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American Coke and Coal Chemicals Institute

CCRA Canadian Carbonization Research Association

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9TH COKEMAKING COURSE

May 14 - 19, 2017

McMaster University,
Hamilton, ON, Canada

Course Objectives

Cokemaking has evolved into a very efficient and sophisticated process. Cokemaking is one of the most important operations in the steel industry because it is the key to energy consumption in the plant and has a major influence on the operation of the blast furnace. Proper control and maintenance of the coke plant may offer solutions to many of the environmental problems associated with steel production. The course will present "state-of-the-art" knowledge of the entire coke plant at a level that will be useful to operators, researchers and suppliers to the industry. While the focus of the course will be primarily on coke for blast furnaces, some consideration will be given to coke for other uses. The material presented and the structure of the course is continuously updated by a team of international experts.

2017 Lectures

Introduction & Fudamentals

- The History of Cokemaking
- Coke in the Blast Furnace
- Fundamentals of Coal and Coke Characterization
- Environmental Issues Facing the Coking Industry into the 21st Century
- Theory of Carbonization
- Coke Oven Game *(Computer Game)*

Coal Preparation:

- Design of Coal Blend for Required Coke Properties.
- Coal from Ground to Coke Plant

Equipment and Operations

- Principles of Coke Oven Design
- Machinery Design and Automation
- Coke Oven Energy Balance and Recovery
- Prolonging Asset Life
- Control of Battery Heating
- Recovery Cokemaking Case Study
- Non-Recovery Cokemaking Fudaments and Principles
- Non-Recovery Cokemaking Case Studies

By-Products

- Introduction to the By-Product Plant
- Tar and Light Oil Recovery
- Removal of Sulphur and Ammonia from Coke Oven Gas
- Effects of Gas Quality on Operations
- Waste Water Treatment
- Case Study on By-Product Operations

Optional Lecture

- High Level Overview of Cokemaking

Course Information:

There is an enrollment limit of 100 registrants. The course fee is **$1,999.00 up to April 15 or $2,150.00 after April 15**. The course fee includes lecture notes, lunches and coffee breaks, Welcome Reception, Banquet, and a shirt.

You can register online at **www.eng.mcmaster.ca/ecomm/mech/event/cokemaking**. Receipt of payment is the only guarantee of registration.

On-Site Course Registration

Sunday, May 14 from 4:00 p.m. to 7:00 p.m at the main lobby of Les Prince Hall (Sterling Street access). Monday, May 15, from 8:00 a.m. to 8:45 a.m. at the registration desk, outside lecture room at the Michael G. DeGroote Centre for Learning & Discovery (MDCL) building.

Accommodation

To promote interaction among registrants and lecturers, we strongly recommend accommodation in residence at the rate of **$600.00 CDN**. Accommodation fee includes 5 breakfasts and Monday dinner. Extra nights are available at **CDN $100.00 + 13% taxes/night**.

On site accommodation registration will be Sunday May 14 from 4:00 p.m. to 7 p.m. at the main lobby of Les Prince Hall (Sterling street access), but for early and late arrivals a front desk is open 24/7 in the main lobby of the Commons building. Daily maid service, bed linens, and towels are provided. Please note there is no wake-up service available. Each room has a private bath.

Reception – Sunday, May 14

A Welcome Reception will be held from 7 - 9 p.m. at the University Club of McMaster. Registrants are invited to meet lecturers, members of the Organizing Committee, and fellow participants.

Banquet – Wednesday, May 17

A banquet is Included in the course registration. (Business casual attire)

Coke Oven Game

Monday and Tuesday evenings. This is an excellent opportunity to meet and interact with colleagues from all over the world. Delegates have found this to be the highlight of the course, and enthusiastic participation is expected.

Optional Plant Tours – Friday May 19

ArcelorMittal Dofasco Tour

Driving tour of coal handling and cokemaking facilities, followed by a ground level walking tour of No.3 Coke Plant/By-Products Plant.

No short sleeves shirts, short pants or open shoes are allowed. Hard hats and safety glasses will be provided.

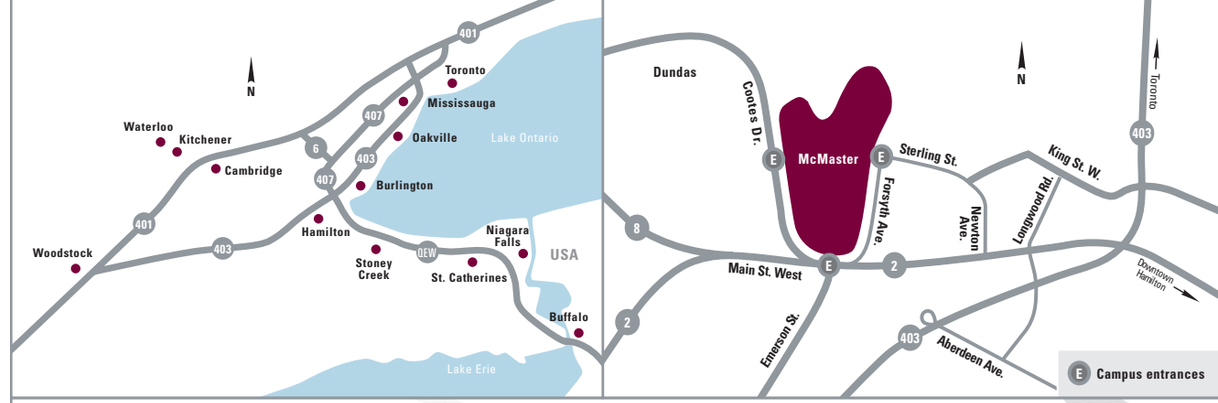
Tour will be limited to 40 registrants on a first come, first served basis at a cost of $40 CDN.

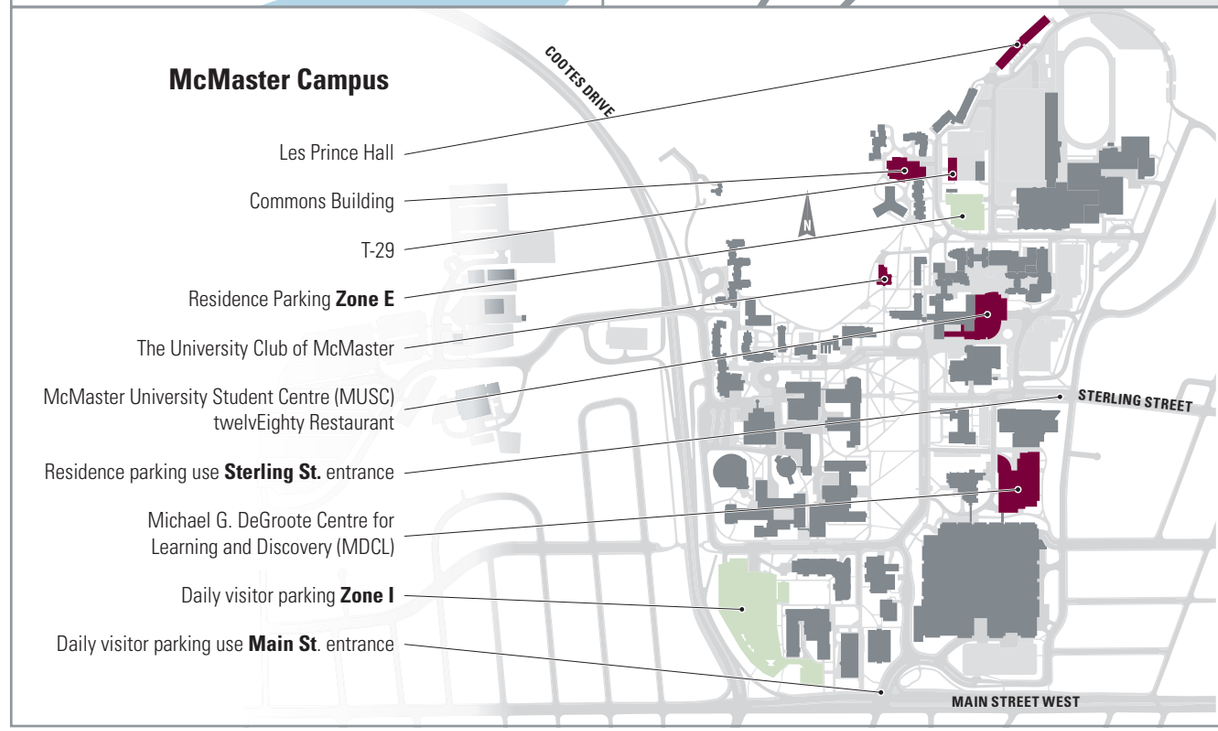
Buses leave the University at 1:00 p.m. and return at approximately 4:30 p.m. Tours start at 1:30 p.m.

Cancellation Policy

Cancellation after April 15, 2017 Refund 50%; there will be no refunds after May 1, 2017. Substitutions can be made.

The Organizing Committee reserves the right to modify course material or to substitute lecturers without notice.





Travel Information:

Location: Hamilton is situated midway between Toronto and Niagara Falls. McMaster University is located in the west end of the city.

Getting Here: The nearest large airport is Pearson International in Toronto. Frequent limousine or bus service is available and it takes about one hour.

There are also flights from Buffalo NY which is approximately 120 km from Hamilton.

Parking Fees: Residents and non-resident attendees will be charged $13.00 per day if purchased at course registration or the course registration desk. McMaster University Parking fee: $20.00/per day.