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REGISTRATION DEADLINE October 22, 2018

Send registrations to:

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Events Team Leader, CIM  
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**CIM, SME, AusIMM, and SAIMM Members:**  
**\$2,400 CAD (Excluding taxes)**

**Non-members:**  
**\$2,800 CAD (Excluding taxes)**

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I will bring a laptop:  Yes  No

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Registration includes course notes, lunch, and morning and afternoon tea.

Participation in this course may be a valid activity towards continuing professional development with up to **26 contact hours**. Participants receive a Certificate of Completion.

Notification of Cancellation received in writing up to **October 22, 2018** (minimum of 10 working days before the course) will incur a 20% cancellation fee. No refund will be made after this time. An alternative participant may be nominated.

INSTRUCTOR



**Lawrence Devon Smith** is Principal Consultant at LDSA.

Larry is a mining engineer with over 40 years experience in economic evaluations and project engineering for mining, metallurgical, and industrial projects. He holds a B.A.Sc. from the University of

Toronto and an M.Eng. Mining from McGill University.

He has worked as Director Project Evaluations at Barrick Gold and has held similar positions with BHP-Billiton Base Metals, Rio Algom, SNC-Lavalin, Kilborn, Inco, and Vale.

Larry's evaluation experience includes economic evaluations, targeting and ranking studies, scoping studies, optimization studies, pre-feasibility and feasibility studies, risk assessment, and due diligence work for banks and mining companies. Larry has published a number of papers on mineral project evaluation, discount rates, and risk assessment, and is considered an expert in these fields.

He teaches mineral project evaluation and mineral economics at the University of Toronto, Schulich School of Business at York University, as well as in-house courses and seminars. He also presents "Introduction to Mining" workshops for investors, management, finance personnel, lawyers, and indigenous peoples.

Larry is on the executive of CIM Mineral Economics Society (MES), and was chair of CIM Toronto. He is the recipient of the CIM Robert Elver award for Mineral Economics, is a Fellow of CIM, and is a CIM Distinguished Lecturer.



[cosmo.mcgill.ca](http://cosmo.mcgill.ca)

**COSMO - Stochastic Mine Planning Laboratory**, a global center for leading-edge research and graduate education in "orebody modelling and strategic mine planning with uncertainty", is supported by AngloGold Ashanti, Barrick Gold, BHP, De Beers, IAMGOLD, Kinross Gold, Newmont Mining, Vale, and the Canada Research Chairs Program, NSERC, and CFI.

PROFESSIONAL DEVELOPMENT SERIES **2018**

STRATEGIC RISK QUANTIFICATION & MANAGEMENT FOR ORE RESERVES & MINE PLANNING



CASH FLOW EVALUATIONS FOR MINERAL PROJECTS

**Lawrence Devon**  
Lawrence, Devon, Smith & Associates, Canada

**November 6-8, 2018**  
Montreal, Canada





## OBJECTIVES AND DESCRIPTION

The purpose of the course is to familiarize the participant with the form and content of discounted cash flow evaluations as they are used in the mineral industry for studies and projects.

This will be useful for:

- The person who is undertaking the detailed development of a cash flow, who needs a better understanding of the data requirements and calculations within a cash flow.
- For managers who will be receiving and reviewing cash flows and need to understand what is being presented to them and what critical questions to ask to assess the cash flow and the project it represents.

The course focuses on several aspects of mineral project evaluations:

- The data and calculations required for a mineral project cash flow.
- The assessment of the viability (economics) of a mining project.
- Risk assessment.

## COURSE CONTENT

### TOPICS INCLUDE:

- What is a Cash Flow?
  - Cash Flow overview, Cash versus Accounting, Why is mining different?
- Discounted Cash Flow (DCF) Metrics
  - Time value of money
  - DCF metrics
  - Discount rate determination
  - Country risk
- Cash Flow Data Requirements
  - Production schedules, tonnes, grade, recovery
  - Metal price forecasts
  - Revenue calculations
  - Operating costs
  - Initial and sustaining capital costs
  - Closure costs
  - Working capital
  - Royalties & Taxes
- Risk assessment & due diligence
- An Excel model for a study case will be provided and will be referenced throughout the course.
- DCF Applications including; cost flows, expansions, “hot” new projects, incremental evaluations.
- Workshop sessions to review and assess an Excel model and a study case.



## WHO SHOULD ATTEND

The course is appropriate for mining engineers and geologists, project managers, analysts, accountants, and financial persons with an interest in evaluating mining projects and properties as well as senior managers and executives who wish to have a better understanding of the DCF evaluations that are being presented to them.

### Please note:

- A laptop computer with Excel is required.
- A basic working knowledge of Excel is required.
- The course does not include Excel training.
- The course does not include reserve estimation, production planning, or cost estimation.

## VENUE DETAILS

McGill University  
Department of Mining and Materials Engineering  
3450 University Street  
Frank Dawson Adams Building, Room 105  
Montreal, Quebec, Canada H3A 0E8  
[admcr.mining@mcgill.ca](mailto:admcr.mining@mcgill.ca)

## LOGISTICS

Lectures are given from 9 AM (refreshments at 8:30 AM) to 5 PM with two 15 minute coffee breaks and a 1 hour lunch break.

2018 Springer publication entitled:  
“Advances in Applied Strategic Mine Planning”  
(Editor Roussos Dimitrakopoulos)  
is included with the course materials.

