

REGISTRATION FORM

If attending convention, please use the registration form received in the convention packet. **Or**

If attending Short Course only, complete this form and return to:
RMCMI
8057 S. Yukon Way
Littleton, Colorado 80128-5510

You may go on line at www.rmcmi.org and go to meetings to find the Convention Registration Brochure.

Name _____

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Enclosed is fee for Short Course:
\$600 if attending RMCMI convention
(Return with RMCMI registration form.)
\$650 if not convention registered.

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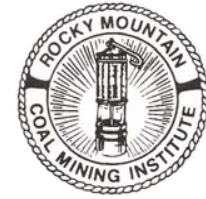
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Visit our web site at www.rmcmi.org for more information on the convention. You may also register on the web and receive a credit card receipt immediately.



THE ROCKY MOUNTAIN
COAL MINING INSTITUTE
8057 S. Yukon Way
Littleton, CO 80128-5510
303/948-3300 303/948-1132 Fax
mail@rmcmi.org www.rmcmi.org



THE ROCKY MOUNTAIN
COAL MINING INSTITUTE

2007 SHORT COURSE

Prior to the RMCMI 103rd
Regular Meeting and Convention

Economic Decision Making

Friday and Saturday
June 22-23, 2007
Copper Mountain Resort
Copper Mountain, Colorado
7:30 a.m. to 5:00 p.m.

“Will it Pay?” is an ever present question in engineering decisions. Decisions are all too often based on “hunches” or “past practices” with little attempt to judge the merits of alternatives in “dollar” terms. Even when best efforts are made to base decisions on economics, engineers and management may not be aware of the strengths and limitations of modern tools for accomplishing this task. Current technology and software provide time-savings means to make money wise decisions. They also provide ample opportunity to make mistakes because of unfamiliarity with how investments and costs should be handled and unfamiliarity with how common software packages process input data. Proper use of these tools in choosing between alternative paths to accomplish a specific goal is the focal point of this year’s RMCMI short course.

In recognition of the importance of economic analysis in mining coal profitably, RMCMI has selected economic decision-making from a number of member-suggested topics as the most appropriate to meet the needs of its members. Fundamentals will be presented in a practical and user-friendly approach. The course will be organized in four modules. The first module will provide a refresher course in the use of Microsoft’s Excel®. The second and third modules will cover the basics of a simple coal mine economic evaluation and commonly associated problems. The fourth module will introduce the use of @RISK®, another software package (an add-on to Excel®) which is useful in simulating uncertainty in economic evaluations. This format will allow some latitude in selecting which modules will be of greatest value. Those who need or desire a new look at the basic operation of Excel® will have that opportunity in the first module. The third module will rely on concepts presented in the second module, so it is strongly advised that participants attend both of these modules. The application of @RISK® will be a new experience for most and will rely heavily on the use of Excel and knowledge of basic economic calculations.

It is strongly advised for those who plan on attending the short course to have a personal laptop computer with Windows XP® operating system. In order to ensure adequate facilities individuals are encouraged to register by May 31, 2007. A temporary license for @RISK® will be issued to each participant which will cover the short course period and a few weeks beyond.

The course will begin Friday, June 22 and conclude Saturday, June 23. Modules one and two will be presented on the first day. Modules three and four will be presented on the second day. A brief synopsis and instructor qualifications are as follows:

Module One, Friday Morning - Spreadsheet Software

Instructor: **Darrel Cameron**

Overview and Presentation of Basic Concepts

Introduction to Microsoft Office Excel®

Excel® is a powerful tool for creating and formatting spread-

sheets. It facilitates analysis and sharing of information for more informed decision-making processes. It is useful for tabulating data, mathematically combining data to generate more useful quantities, sorting, filtering, and interacting with other software applications. Instruction will include basics of spreadsheets (cells, columns, and rows), types of data, constraints, entering formulas, conditional statements, and specific functions for basic math and calculating economic variables. Commonly used methods for formatting text and presenting data in charts or graphs will also be presented.

Darrel Cameron - Self-employed programming consultant. Mr. Cameron has a B.S. degree in Mining Engineering and an MBA from the University of Utah. He has been employed by the University as a Computer Systems Programmer for the Utah Seismograph Stations and the College of Mines and Earth Sciences. Past experience also includes Computer Systems Programmer for Kennecott Corporation in Salt Lake City and consultant for Behre Dolbear, in Denver Colorado.

Module Two, Friday Afternoon - Basic Economic Analysis

Instructor: **Jon Kelly**

Overview and Presentation of Time Value of Money

This module presents a general review of discounted cash flow and net present value procedures. The concept of “hurdle rate” and how it is determined will be presented along with its use in project evaluation. Inflation is an important part of projected costs and revenues. The importance of inflation will be explored. Common mistakes in project evaluations will be identified as well as problems created by Excel® in spreadsheet calculation of discounted cash flow and present value analysis.

Module Three, Saturday Morning - Basic Economic Analysis

Instructor: **Jon Kelly**

Analysis of costs, consideration of risk, and the concept of profit

This session will answer the questions: how are opportunity costs handled; when is an expense a capital investment and when is it an operating cost; what is the difference between a maintenance cost evaluation and a capital investment; what is the definition of risk as applied to a mining project and how do you handle risk in an evaluation; what is working capital and how is it determined; and what is meant when you say the project made a “profit”?

Jon Kelly - Mining Engineer/Mineral Economist. Mr. Kelly has a B.S. degree in Mining Engineering from the University of Kentucky and a M.S. degree in Mineral Economics from the Colorado School of Mines. He is a registered professional mining engineer with extensive background in both surface and under-

ground coal mining operations, phosphate mining, oil sand mining and planning, industrial engineering, purchasing, and cost estimation. He has had more than 40 years of experience in the coal industry including mine planning, mineral property valuations, mineral economics, operations assistance, mining cost studies, coal and transportation contract negotiation and administration. He has performed assignments in all of the major North American coal fields as well as energy projects in Australia, Russia, Kyrgyzstan, and Kazakhstan. He has taught graduate level courses in cost estimating at Colorado School of Mines and teaches Economic Evaluation and Investment Decision Methods for Dr. Frank Sermole.

Module Four, Saturday Afternoon

Introduction to @RISK®

Instructor: **Michael Nelson**

Incorporating uncertainty in estimating future changes in costs and revenues

Economic analysis often relies on historical costs and price estimates based on future projections. The program @RISK® produced by Palisade Corporation uses Monte Carlo simulation to provide a range of possible outcomes in Excel® spreadsheets. Rather than just one outcome, the software extends a spreadsheet model to a large number of possible scenarios and provides how likely they are to occur. Knowing the probability of good or bad outcomes facilitates making the right decision. With @RISK®, it is possible to answer questions like: “What is the probability of profit for a given venture exceeding a given amount?” or “What are the chances of losing money if a particular project is funded.” A trial version of the software will be provided to each participant.

Mike Nelson. Associate Professor of Mining Engineering at the University of Utah. Prof. Nelson has a Ph.D. from the West Virginia University and extensive experience as an educator and consultant to the mining industry. He worked for CONSOL for approximately six years in design of automated controls for longwall machines before accepting his first faculty position at the University of Alaska. He joined the University of Utah in 1999. At the University of Utah, he teaches underground mining and senior courses dealing with design of underground coal mines.

Attendance for two days will provide sixteen professional development hours. Registration fees cover two days of instruction. There is no reduction in cost for participants who wish to attend less than the four modules. Register early to assure a seat in the course.