

Agenda

Presented by S. Bobby Rauf, PE, CEM, CMT, MBA

Agenda Day One:
Monday, August 19, 2024 | 10:00 am - 2:30 pm CDT

Finance, Engineering Economics and Accounting Concepts

- Definitions
- Discussion and examples of calculations
 - Economics and engineering economics
 - Common organizational structures
 - Role of financial analysts, accountants, controllers, and CFO's

Income Statements and Balance Sheets

- Cash flow
- Working capital concepts

Financial Reporting Requirements and Financial Metrics and Ratios

- | | |
|-------------------------------|----------------------------|
| Payback period | Present value (PV) |
| Future value (FV) | Conversions and analyses |
| Time value of money | Return on investment (ROI) |
| Internal rate of return (IRR) | Return on equity (ROE) |
| Net present value (NPV) | Current ratio |
| Rate of return (ROR) | Plant turnover ratio |
| Acid test ratio | |

Agenda Day Two:
Tuesday, August 20, 2024 | 10:00 am - 2:30 pm CDT

Depreciation Alternatives

- | | |
|---------------------------|---------------|
| Straight line (S/L) | Product-based |
| Sum of years (SOY) digits | |

Inventory Concepts

- | | |
|----------------------------------|---------------------------|
| First-in, first-out (FIFO) | Last-in, first-out (LIFO) |
| Economic order quantity (EOQ) | Inventory turnover ratio |
| Work in progress (WIP) inventory | Inventory carrying costs |

Lease vs. Buy Decisions

- Repair vs. replace decisions

Costs

- | | |
|---------------------------|--------------|
| Life-cycle cost | Period costs |
| Direct and indirect costs | |

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Finance and Engineering Economics for Engineers

Online - Monday, August 19 & Tuesday, August 20, 2024

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

- Become** familiar with common concepts and vocabulary in finance, economics and accounting.
- Understand** the basics of income statements and balance sheets.
- Identify** financial metrics including the time value of money, return on investment and present value.
- Define** depreciation and discuss alternatives for calculating depreciation amounts.
- Analyze** decisions to lease and/or buy assets from a financial perspective.
- Explore** costs related to projects and general business costs.



HalfMoon Education Inc.,
Your LIVE Education Leader Presents

Finance and Engineering Economics for Engineers

Live, Interactive Webinar

Monday, August 19, 2024 | 10:00 am - 2:30 pm CDT
Tuesday, August 20, 2024 | 10:00 am - 2:30 pm CDT



- | | |
|--|--|
| Learn about finance, engineering economics and accounting concepts | Explore inventory concepts, such as inventory turnover ratio |
| Analyze income statements and balance sheets | Examine decisions of whether to lease or buy and discuss repair vs replace |
| Discuss financial reporting requirements and financial metrics and ratios | Understand direct and indirect costs |
| Consider depreciation alternatives | |

Continuing Education Credits

Professional Engineers
8.0 PDHs
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Webinar Information

Day One: Monday, August 19, 2024
10:00 am - 2:30 pm CDT (including a 30-min. break)

Day Two: Tuesday, August 20, 2024
10:00 am - 2:30 pm CDT (including a 30-min. break)
(please log into the webinar 15 - 30 minutes before start time)

Tuition
\$339 for individual registration.
\$309 for two or more registrants from the same company at the same time.
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Faculty

S. Bobby Rauf, PE, CEM, CMT, MBA
President, Chief Consultant and a Senior Instructor at Sem-Train, LLC
Professor Rauf has over 25 years of experience in teaching undergraduate and post graduate engineering, science, math, business administration and MBA courses, seminars, and workshops. He earned his BS degree in Electrical Engineering, with honors, from North Carolina State University in Raleigh, North Carolina. Professor Rauf earned his executive MBA degree from Pfeiffer University in Misenheimer, North Carolina. He is a registered professional engineer in the States of Virginia, Wyoming, and North Carolina and is a certified energy manager. Professor Rauf holds a patent in process controls technology. His last full-time engineering employment, in the corporate world, was at PPG Industries, Inc. where he served as a senior staff engineer. Professor Rauf was inducted as “Legend in Energy” by AEE, in 2014. He is a member of ASEE, American Society of Engineering Education. Professor Rauf has developed and instructed Professional Engineering and Fundamentals of Engineering Exam (NCEES) Prep Courses over the past 20 years. He develops and instructs PDHs (Professional Development Hours) and continuing education, engineering skill building seminars and courses. Professor Rauf is also an adjunct professor at Gardner-Webb University. He has published multiple texts over the last ten years. Professor Rauf also provides text editorial services to River Publishers.

Credit Information

This webinar is open to the public and is designed to qualify for 8.0 PDHs for professional engineers in most states that allow non-HSW coursework. This course is not approved in New York and states which require HSW coursework. Please refer to specific state rules to determine eligibility.

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- Tuesday, July 16, 2024 | 11:00 am - 1:00 pm CDT
- Deep Dive into PFAS in Our Water**
- Wednesday, July 24, 2024 | 9:00 am - 12:15 pm CDT
- Applying the Building Code to Cannabis Facilities**
- Friday, July 26, 2024 | 8:30 am - 3:30 pm CDT
- High-Performance Building Envelope Design and Construction**
- Monday, July 29, 2024 | 8:30 am - 4:00 pm CDT
- Modular Construction and Prefabricated Components: Residential, Multi-Family and Commercial Buildings**
- Tuesday, July 30, 2024 | 9:00 am - 3:50 pm CDT
- Wood Frame Design for Residential and Small Commercial Buildings**
- Tuesday, July 30, 2024 | 9:00 am - 4:30 pm CDT
- Design-Build Project Delivery**
- Wednesday, July 31, 2024 | 9:00 am - 4:00 pm CDT
- Embodied Carbon: What It Is and What to Do About It**
- Thursday, August 1, 2024 | 10:00 am - 1:00 pm CDT
- Using the HVAC Tables, Equations and Rules of Thumb Quick-Card**
- Thursday, August 1, 2024 | 9:00 am - 12:00 pm CDT
- Hot-Mix Asphalt Pavement Design, Maintenance and Rehabilitation**
- Friday, August 2, 2024 | 8:30 am - 4:00 pm CDT
- The Timeless Advantage of Commercial Property Assessed Clean Energy (C-Pace)**
- Monday, August 5, 2024 | 10:00 am - 12:00 pm CDT
- Designing Accessible Pedestrian Facilities under ADA, IBC and PROWAG**
- Tuesday, August 6, 2024 | 9:00 am - 12:30 pm CDT
- Thursday, August 8, 2024 | 9:00 am - 12:30 pm CDT
- Seismic Requirements for Existing Buildings**
- Tuesday, August 6, 2024 | 9:00 am - 4:00 pm CDT
- Using the 2020 National Electrical Code Quick-Card**
- Tuesday, August 6, 2024 | 9:00 am - 12:00 pm CDT
- Pervious Concrete Pavements: Design, Construction, and Maintenance**
- Tuesday, August 13, 2024 | 9:00 am - 12:10 pm CDT
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