



The Manufacturing Society
Northern Lights Chapter # 370

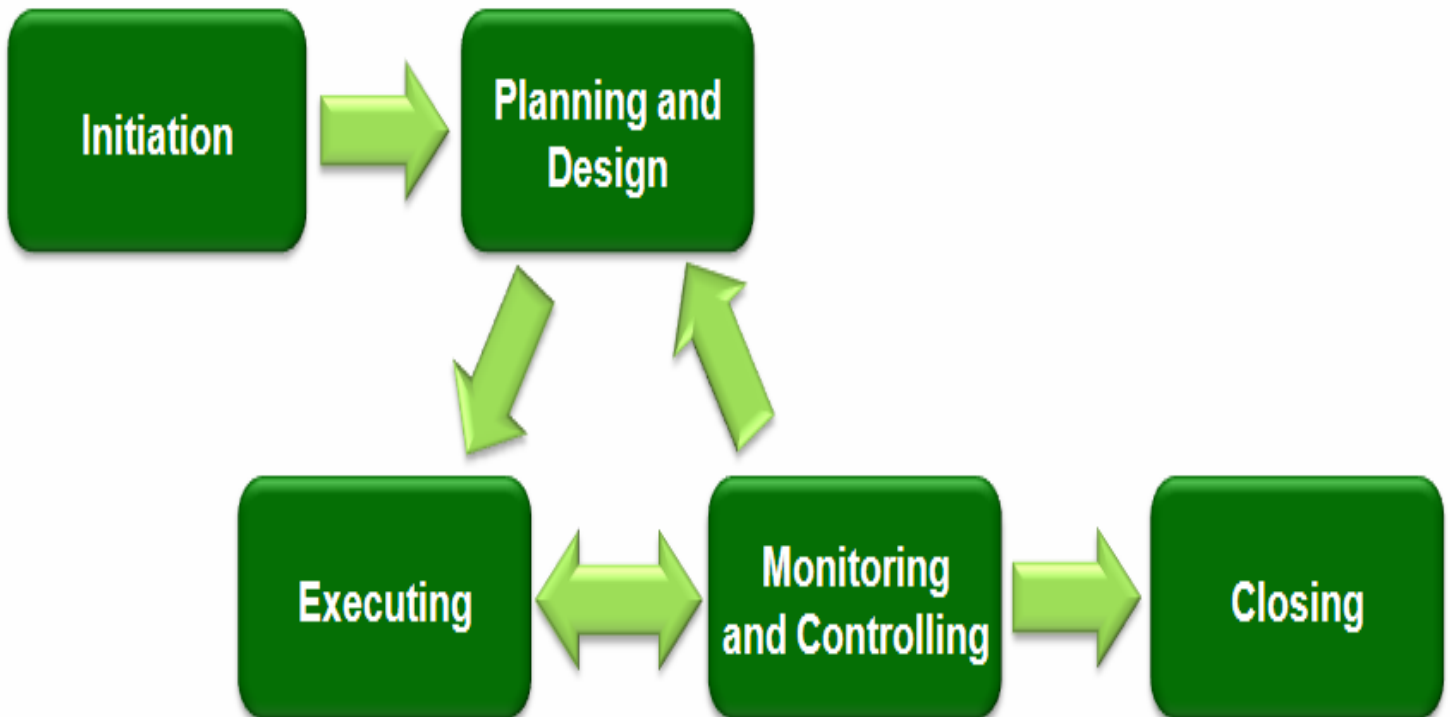
The Northern Lights

Newsletter — February 2009

For the latest information check-out
<http://chapters.sme.org/c370/>

If you would like to be added to our monthly newsletter visit:
<http://maillists.bijouenhancements.com/lists/>

Project Management the Essentials



Courtesy from: http://upload.wikimedia.org/wikipedia/commons/b/bb/Project_Management_%28phases%29.png

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SME Northern Lights Chapter 370 proudly presents

Project Management the Essentials

with Vincent Capri

With this information session participants will have a better understanding of some of the key elements and tools to overview a project, the typical problems encountered when managing projects, and managing group activity. Vincent will present more detailed information pertaining to these key elements. The following will be some of the elements to be presented:

- Defining Project Scope
- Management of Human Resources
- Documentation of project progression
- Close-out and project evaluation

Vincent will also talk about the overlooked skills that every project manager needs to know about and use for every project. At the end of the information session Vincent will also lead a group activity to further reinforce the elements learned. This will allow all participants to apply what they learned about project management.

About our Speaker:

Vincent Capri has for the past 10 years been facilitating weekend Project Management Certificate Program workshops at NAIT. He is a graduate of the University of Oregon—B. Sc. Recreation & Parks Administration. He also holds Diplomas & Certificates from NAIT—Project Management, University of Alberta—Human Resources Management, and Mount Royal College—Recreation Administration. With these accreditations, as well as his 20+ years in the Non-profit sector, 15 years as president of his own consulting & training firm working with small business, and six years as a Training Coordinator with the Alberta, Vincent brings a wealth of understanding the dynamics of project management and the tools necessary to bring a project to completion.

WHERE TO GO!

University Faculty Club
11435 Saskatchewan Drive

Wednesday, February 11, 2009

Social Hour: 5:30 to 6:00 pm

Dinner: 6:00 to 7:00 pm

Presentation: 7:00 to 8:00 pm

COST: \$30 members
\$30 first time guests
\$40 non members
\$10 student members
\$15 student guests

Member pricing is always extended to members of other technical societies such as ASM, AWS, CWA, NACE, CSME, ASME, etc.

**Please RSVP by 4:00 p.m.
Monday, February 9, 2009.**

RSVP Online for our event at

<http://maillists.bijouenhancements.com/sme/>

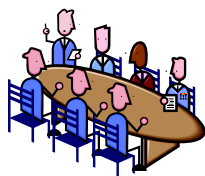
PLEASE DO NOT "REPLY" TO THIS NEWSLETTER

The SME Northern Lights Chapter normally holds technical meetings on the second Wednesday of each month except for the month of July and August.

REMEMBER...

Students and student members that attend the SME dinner meeting have a chance to win a FREE dinner drawn at the end of the meeting.

Northern Lights Chapter Executive 2009



Chair

Calvin Austrom, caustrom@masterflo.com
Master Flo Valve Inc, 780-468-4433

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Past Chair

Curt Stout, curt.stout@ualberta.ca
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Northern Lights Chapter #370
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Edmonton, AB T6H 4J8



The Northern Lights Highlights

SME Northern Lights Chapter 370 January Presentation

Workplace Ergonomics

On January 14th, 2009 Gary Friesen, of Friesen Ergonomics, presented and led a discussion on workplace ergonomics. He presented a brief overview of the particular aspects of engineering, psychology, and biological sciences, and how these fields pertain to ergonomics. By having a better understanding of these fields and how they affect the worker, all attendees learned how the work area can be designed better to fit the worker.

To further reinforce how a better designed work area can benefit a worker, Gary explained in detail where in the workplace proper ergonomics can be applied. The primary areas where proper ergonomics should be applied were the choice of power and hand tools, office ergonomics, and ergonomics relating to manual material handling. Gary went on to give examples and some guide lines of proper work area set-up so as to minimize worker fatigue and injury.

By understanding these basic ergonomic guidelines presented by Gary, all attendees learned how ergonomic design could positively affect the worker. Incorporating these ergonomic principles employers could prevent musculoskeletal injuries (MSI), decrease employee fatigue, and increase productivity. The benefits of better ergonomic design would also extend to an increase of overall employee moral and provide a better company bottom line.

Thank you...

for reading the *Northern Lights*. If you are interested in presenting at a SME dinner, please contact Deepak Srinivasagupta at deepaks@nait.ca. Kindly include the field you are working in and the subject you are interested in presenting to the chapter members and guests.

Remember to keep SME information current

- We do not wish any of our members or friends to miss a newsletter. Please make sure to inform the newsletter editor of any changes to your email or employment address.
- If you have any newsworthy stories or information, we would be pleased to include it in our newsletter, subject to editorial approval.
- If you know of anyone who would like to receive this newsletter, please send them to <http://maillists.bijouenhancements.com/lists/>. The best part about it—it's FREE!!



Northern Lights Chapter 370

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We are pleased to present a one-day seminar on

Geometric Dimensioning and Tolerancing

This comprehensive 1-day course will identify the many benefits of geometric dimensioning and tolerancing (GD&T) based on ASME Y14.5M-1994. Participants will discover cost savings at the design, manufacturing and inspection stages of the organization as a result of the proper application and implementation of the GD&T system. This course will enable participants to understand and speak the “language” of GD&T. Participants will learn how to:

- Recognize and apply bonus geometric tolerances
- Easily rework parts to meet requirements
- Use functional gauges to effectively verify geometric requirements
- Recognize extra tolerances from referenced datums
- Inspect geometric tolerances using conventional measuring equipment
- Recognize why good parts may be rejected when using the coordinate measuring machine (CMM)
- Identify which standard was used in creating the drawing, and identify the main differences between the most common standards used.

Topics covered will include, but not be limited to, the following:

- Introduction to GD&T symbols, terms and definitions
- Rules and boundary concepts
- Form tolerances
- Datums
- Orientation tolerances
- Location controls
- Runout and profile tolerances

We are pleased to announce that Bob Blazewich will be our presenter for this seminar. Bob has been an instructor in the field of GD&T since 1993, and has received rave reviews for his instructional abilities.

Friday, February 20th, 2009

University of Alberta, Edmonton

ETLC Room 2-002

	Before February 1, 2009	February 1 thru 13 2009
SME Members*	\$295	\$345
Non-Members	\$345	\$395
Students	\$100	\$150

To register visit <http://chapters.sme.org/370/seminars>

* Member pricing is extended to members of other technical societies, e.g. ASM, ASQ, AWS, NACE, etc.



Northern Lights Chapter 370

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THE PRESENTER

Bob Blazewich

Bob Z. Blazewicz is president of 2-B Quality Training Services established in 1993 in Kitchener, Ontario. He has been an instructor of geometric dimensioning and tolerancing (GD&T) courses for the past 15 years. Bob graduated from the Mechanical Engineering Technology program at Dawson College in Montreal and immediately began working for Com Dev International, a major supplier of Microwave communication components and subsystems for the satellite industry. After only 7 months as a designer at Com Dev, he was promoted to the supervisory position of that department. He was employed at Com Dev for over 15 years, of which his last two years were in the role of project engineer/manager of all the waveguide switch programs. While employed at Com Dev, Bob attended evening courses for 4 years at the University of Waterloo and graduated from the Business Management Program.

When he conducted geometric dimensioning and tolerancing courses at Com Dev he obtained very positive feedback and realized that he was not only effective as an instructor, but that he also enjoyed sharing his knowledge with others. This led him to launch a new career as an instructor. Bob began by teaching technical courses at Conestoga College in Kitchener. The courses he taught included "engineering drawing interpretation", "dimensional metrology", and "geometric dimensioning and tolerancing". His GD&T classes at the college were always full. Bob's simple approach to a complex subject is recognized by all the companies he has trained at over the years, and he is confident that his knowledge of GD&T combined with his teaching style/method will be a definite asset to all course participants.

REGISTRATION

Registration is to be done online at <http://chapters.sme.org/370/seminars>. Payment is done through the same website via PayPal. Offline registration, and other payment methods, may be arranged by contacting Dave deJong.

There is no on-site registration. Receipts and directions will be provided by email only unless otherwise specifically requested.

Limited Seats – Register soon to get early bird discounts and ensure a place.

Early registration ends January 31, 2009 and all registrations end February 13, 2009

For any questions or for further details please contact Dave deJong at 780-819-7049, or caprica@shaw.ca



Northern Lights Chapter 370

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Where Manufacturing Comes Together...

Geometric Dimensioning and Tolerancing

Presenter: Bob Blazewich
Feb 20, 2009 (Friday) at U of A

ETLC Room 2-002

Attendee Name/s (Photocopy form for additional names)	
Company	
Address	
Tel	
Fax	
Email	
SME Member #	

Do you agree to distribute your contact details to other attendees YES/NO

	Before February 1, 2009	February 1 until February 13, 2009
Members of SME	\$295	\$345
Non-members	\$345	\$395
Students	\$100	\$150

NOTE: ONLINE REGISTRATION AT <http://chapters.sme.org/370/seminars> IS PREFERRED.

For offline registration, mail to
David deJong
8308 - 152A avenue NW
Edmonton, AB T5E 3B2

(OFFLINE) REGISTRATION FORM



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SME NORTHERN LIGHTS
CHAPTER

SMART CAR SCULPTURE



Image Courtesy www.thsmart.ca

Vision

The Society of Manufacturing Engineers Northern Lights Chapter in collaboration with the Mechanical Engineering Technology Department NAIT, the Department of Mechanical Engineering, Industrial Design, and Visual Communication Design at the U of A proposes to create an innovative and visually exciting display intended to illustrate the unity of art, design, technology and manufacturing by using the iconic 2009 Smart Car as its centerpiece. We wish to help people understand the role of art, design, engineering and manufacturing by creating an approachable, hands on display that reveals in an artistic fashion the inner workings of the Smart Car.

Design Brief

The design brief to our industrial and graphic design team is to reveal the chassis, suspension, engine, power train, seats, wheels, and interior systems in a cool manner that demonstrates how each of these systems are designed and manufactured. We envision sectioning and "exploding" components of the Smart Car in a colourful and inviting manner. Our design team will prepare display concepts using sketches, drawings and scale models to be used as guidelines to the technical team. Our intention is to make the display transportable so that it can be used at other locations as part of educational or promotional activities. In between times, the Smart Car will be on display in the respective Mechanical Engineering Buildings at NAIT and the U of A.

SME NORTHERN LIGHTS CHAPTER

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SME NORTHERN LIGHTS
CHAPTER

SMART CAR SCULPTURE



Image Courtesy www.thsmart.ca

Partners

Weber Motors Ltd.
Universe Machine Corp.
Gambit Products Ltd.
Caprica Consulting Inc.

Calvin Austron
Rick Chetram
Steve Martens
Kris Mauthe
Alex Shum
Curt Stout
Jeff Underhill

MET NAIT
Industrial Design, U of A
Visual Communication Design
Mechanical Engineering U of A

Fundraising

Our SME chapter has assumed a leadership role in fundraising for the project and has secured donations of \$18,000 from local manufacturing companies, individuals and chapter executive. Indeed 5 members of the SME executive have personally donated \$500 each to the project as gesture of our commitment. All project sponsors will be acknowledged on the display and will have their names featured prominently.

Manufacturing

We are currently preparing a proposal that will be presented to the Automotive and Machining Departments at NAIT asking for their assistance in creating the display. We will require expertise in disassembling and sectioning vehicle components as well as fabricating the display base and transport trailer. The artistic vision will be a collaboration between our industrial and graphic design team as well as the technical professionals working on the car and display.

Timeline

Our preliminary project timeline includes 4 to 6 months for design which will occur while we are waiting for vehicle delivery and approximately 8 to 12 months to fabricate the display.

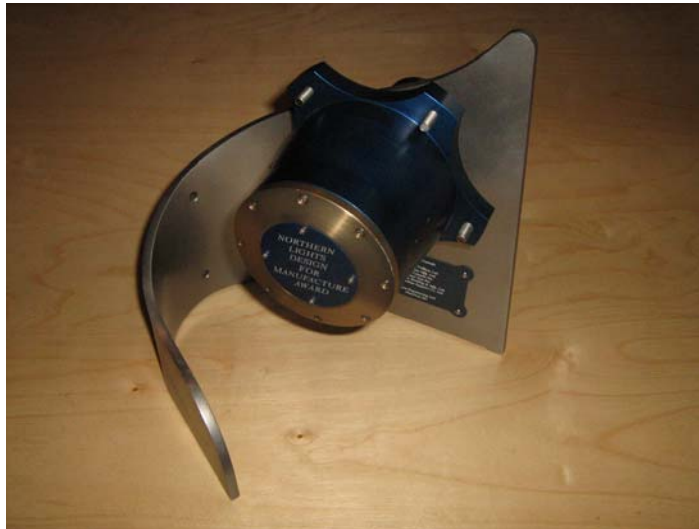


Northern Lights Chapter 370

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2009 Capstone Honours Awards



The Capstone Honours Awards, now in its 9th year, will again be recognizing budding mechanical designers this upcoming April 7th at the University of Alberta. The annual affair honours mechanical engineering students judged to have the best design presentations for their final year design project with the winners continuing on to the Canadian Society of Mechanical Engineering national competition. The Department of Mechanical Engineering has been collaborating with the Faculty of Fine Arts and each group of five in this year's competition will include at least one industrial design student. Altogether, there are approximately 180 graduating students competing for the Capstone Honours Awards.

Four different awards are given at the ceremony. Each one recognizes excellence in a particular aspect of mechanical design: selection and appropriate use of advanced materials; ease and consideration of the manufacturing processes; application of sophisticated engineering and design methods; innovation and creativity. The unique Capstone trophies are a working gear reducers valued at \$2000 whose components have been fabricated and generously donated by manufacturing companies located within Alberta. Each of the 16 deserving finalists received one of these prestigious trophies.

At the conclusion of the last years Capstone Honours ceremony, the top prize was awarded to the team of Jason Boddez, Michael Dawson, Roberto Martinez, and Darren Achymichuk for their project, the Electric Car Propulsion System.

The Capstone Honours Awards are a joint effort between the University of Alberta and the Northern Lights Chapter of the Society of Manufacturing Engineers. The event is sponsored by industry and is organized by the Capstone Board, which consists of university faculty, industry representatives, and recent graduates. The awards night is night of intrigue into the exciting world of mechanical engineering design and is open to anyone who wishes to attend. For more information including sponsorship and ticket information please visit www.capstoneawards.com.



Northern Lights Chapter 370

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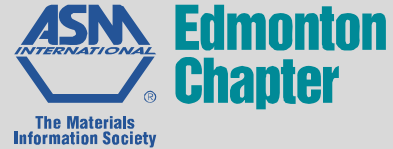
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Metallography Part 1 – Seminar

Part II- Practical Session

Part I Feb 19, 2009 Thursday

Part II Feb 20 , 2009 Friday



Venue

Alberta Research Council
Edmonton

Part I: Seminar

The focus of the one day seminar will be to provide the attendee a working knowledge of Metallography. Metallography is the study of the interrelationship between the structural characteristics and the physical and mechanical properties of metals, alloys and nonmetallic materials such as ceramics, polymers or composites. Structural interpretation of these materials is made possible by sectioning, mounting, grinding, polishing and etching a specimen which can then be viewed microscopically.

This course is intended to provide instruction in proper metallographic preparation techniques and the principles on which they are based. It describes methods of viewing structures and analyzing the constituents which are present. This course will enable the participant to understand the basics of steel metallographic preparation with particular emphasis on carbon steels, welding and failure analysis.

Part II: Practical

The practical session will enable the participant to develop skills applying the information from the seminar using the metallographic facilities available at Alberta Research, and learn practical preparation techniques for steel and other materials directly from a well known expert. *There is an enrolment limit of 10 for the practical hands on session only.*

Who Should Attend

Materials engineers, quality technicians, lab technicians and anyone with basic experience in metallographic sample preparation and microscopy.

Prerequisites

None but some knowledge of Metallography is advantageous. While it is not necessary to enrol in Part I to Attend Part II the practical session, this is recommended.

Presenter

Dr. George F. Vander Voort

Director, Research & Technology
Buehler Ltd.

About the Presenter

George Vander Voort is a graduate of Drexel University and Lehigh University with a background in metallurgy and materials science and 29 years experience in the specialty steel industry. A past president of the International Metallographic Society and past chairman of ASTM Committee E-4 on Metallography, George has over 160 publications including *Metallography: Principles and Practice* (McGraw-Hill, 1984; ASM, 1999) and the ASM video course, *Principles of Metallography*. He is currently serving as a trustee for ASM International. He is also associate editor of *Materials Characterization* and on the editorial board of *Praktische Metallographie*.

Pre-register your seat now:

Sean Sinfield
ASM Edmonton Chapter
c/o Black Cat Blades Ltd.
5604—59 Street Edmonton T6B 3C3

Phone: (780) 577-6733

Email: sean.sinfield@blackcatblades.com