

# TRAINING CARRIER-READY CONSTRUCTION MANAGEMENT GRADUATES WITH VALUE MANAGEMENT COMPETENCIES

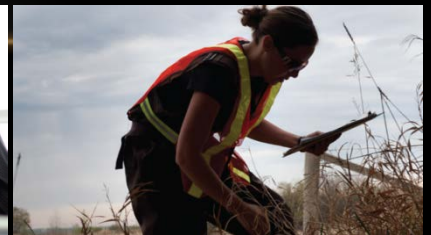
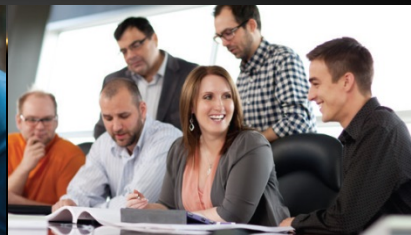
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NAIT



# NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY (NAIT)

- One of the world's leading polytechnics.
- Alberta's third largest post-secondary
- Approx. 140 credit programs (Degrees, Applied Degrees, Diplomas and Certificate)
- 179,000 graduates in 84 countries
- Approx. 3000 staff
- 8400 fulltime students
- 20,500 CE Part –time students
- 20,000 CIT registrants in 60 countries
- 2,000 international students from 77 countries
- Program range: Hospitality/Culinary Arts, Business, Health Sciences, ICT and **Sustainable Building and Environmental Management**



# CONSTRUCTION MANAGEMENT

- The competence of a construction program: Necessary expertise in order to practice professionally in the construction industry
  - Construction projects are complex because they involve many human and non-human factors and variables
  - The rapid trend of globalization and technological changes: Construction organizations survival in the competitive world
  - Importance of construction project management has been increased many folds
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# CONSTRUCTION MANAGEMENT

- Construction professionals are often assigned management responsibilities: *A result of promotion to higher level or due to the nature of work*
  - Leading companies want and need construction professionals with solid foundations in both construction and project management
  - Construction Project Management program is a management-based course of study: *Prepares students for leadership roles in the construction industry*
  - The competencies for baccalaureate level construction management education in Alberta, Canada
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# CONSTRUCTION MANAGEMENT COMPETENCIES

- The role of construction management professional now includes many front-end services
- Many researches identified the competencies i.e. project management, leadership, business skills, professionalism, construction acumen, contracts management, research, communication skills, conflict resolution skills, cost management, procurement management, risk management, building techniques, technological skills, teamwork, ability to learn and global project management (Choudhury, 2000; Kay, 2001; Hartenian et al., 2001; Babcock and Morse, 2002; Turner and Muller, 2003; Arain et al., 2004; Conrad and Sireli, 2005; Karmar, 2005; Arain, 2007; Arain, 2009; Arain and Tipu, 2009; Arain, 2010).

# CONSTRUCTION MANAGEMENT COMPETENCIES



# IDENTIFYING CM COMPETENCIES

- Construction management competencies identified through literature review and industry initial feedback
  - A survey of 32 professionals from the Albertan construction industry was carried out
  - Industry focus group sessions
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# IDENTIFYING CM COMPETENCIES

Respondents	Responses received	Interviewed	Percentage
Contractors	14	14	43.76%
Consultants	11	11	34.37%
Academia	3	3	9.37%
Governmental Organization	2	2	6.25%
Professional Association	2	2	6.25%
Total	32	32	100%

Respondents	Appointments	Responses received	Percentage
Professionals	Vice Presidents	2	6.25%
	Directors	7	21.87%
	Senior Managers	11	34.38%
	Project Managers	6	18.75%
	Construction Managers	4	12.50%
	Project Engineers	2	6.25%
Total		32	100

# IDENTIFYING CM COMPETENCIES

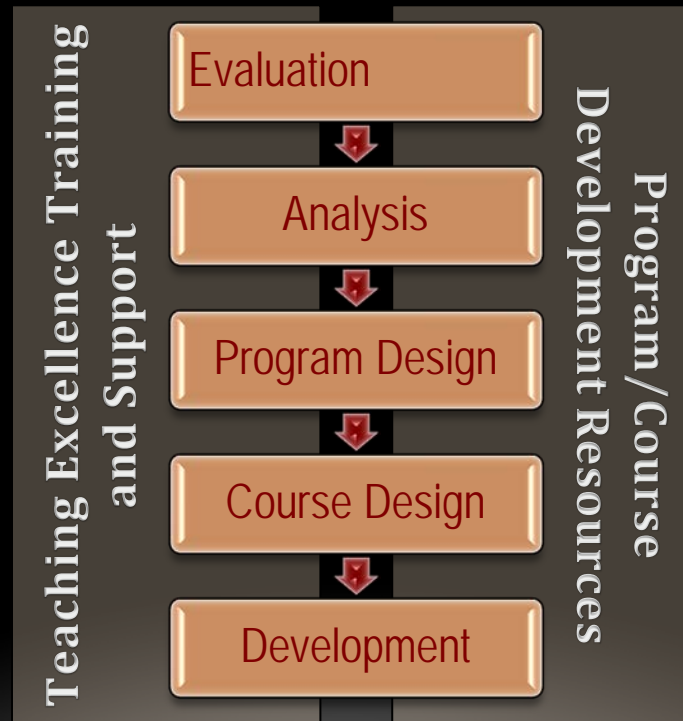
S No.	Competencies for Baccalaureate Level Construction Education	Mean	Std. Dev.
1	Project Management	3.62	0.64
2	Leadership	3.62	0.58
3	Business Acumen	3.56	0.64
4	Professionalism	3.48	0.75
5	Construction Acumen	3.64	0.73
6	Contracts Management	3.14	0.59
7	Research	3.22	0.64
8	Communications	3.39	0.83
9	Conflict Resolution	3.18	0.67
10	Cost Management	3.21	0.92
11	Procurement Management	3.07	0.58
12	Risk Management	3.11	0.70
13	Building Techniques	3.32	0.77
14	International Project Management	3.25	0.65
15	Technological competency	3.07	0.73
16	Teamwork	3.11	0.70
17	Ability to Learn	3.18	0.64

# CONSTRUCTION MANAGEMENT TOP FIVE COMPETENCIES

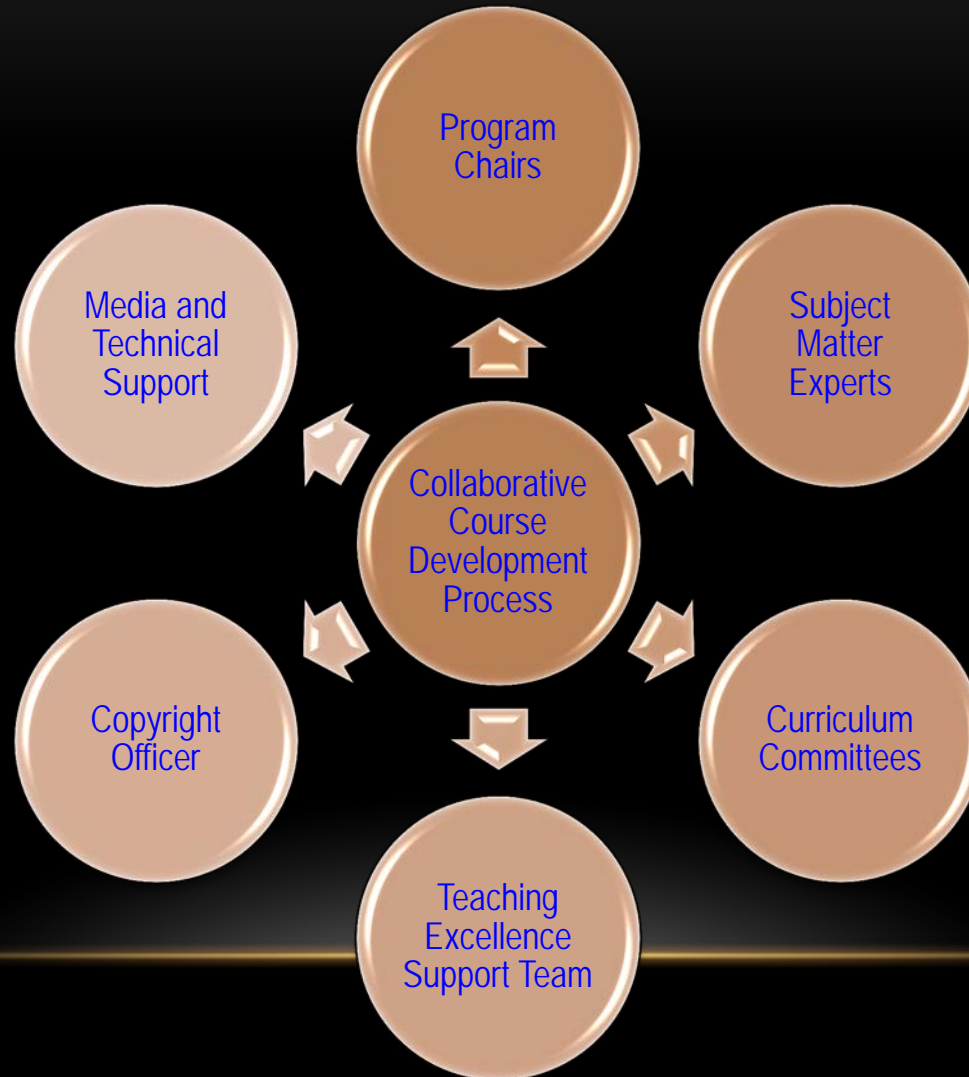


# DEVELOPING VALUE MANAGEMENT COURSE

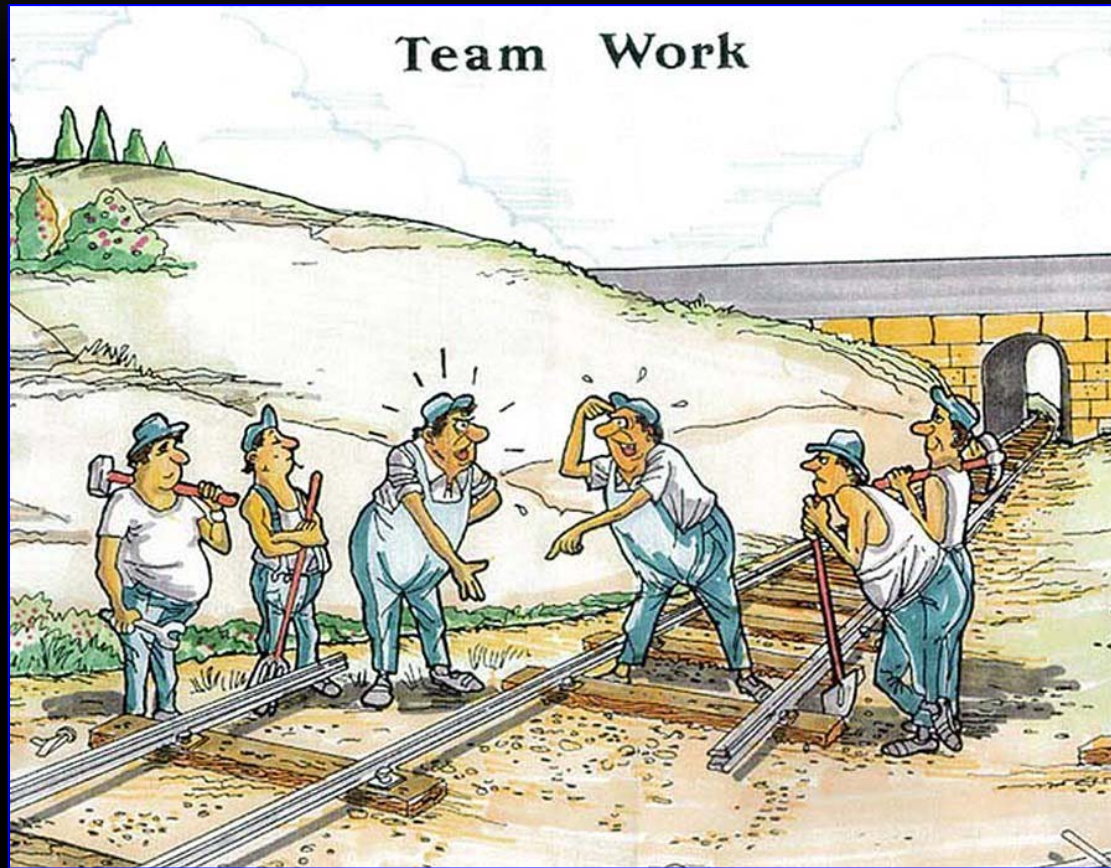
- Structured process – Outcome based Education



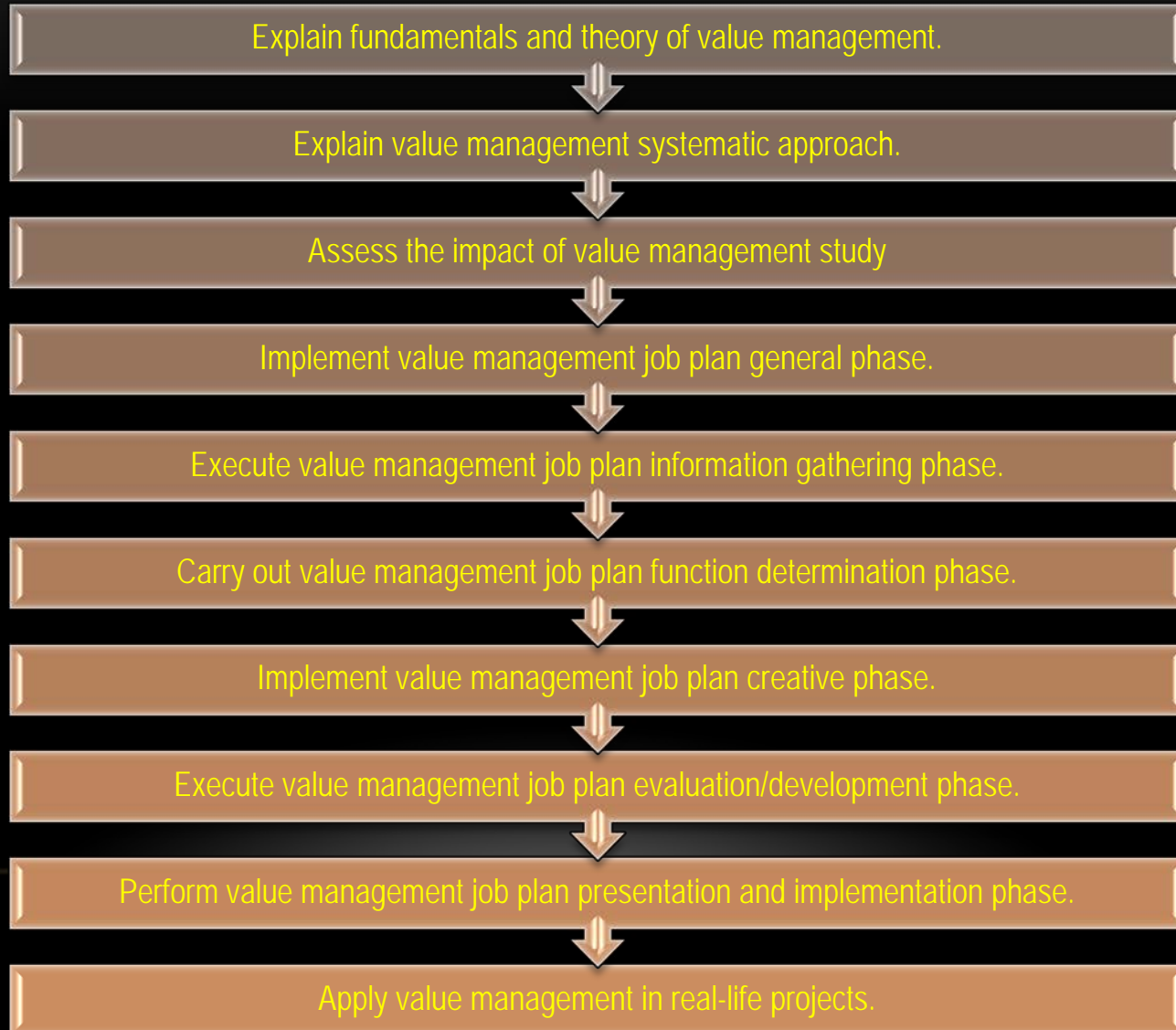
# DEVELOPING VALUE MANAGEMENT COURSE



# INTERDISCIPLINARY COURSE

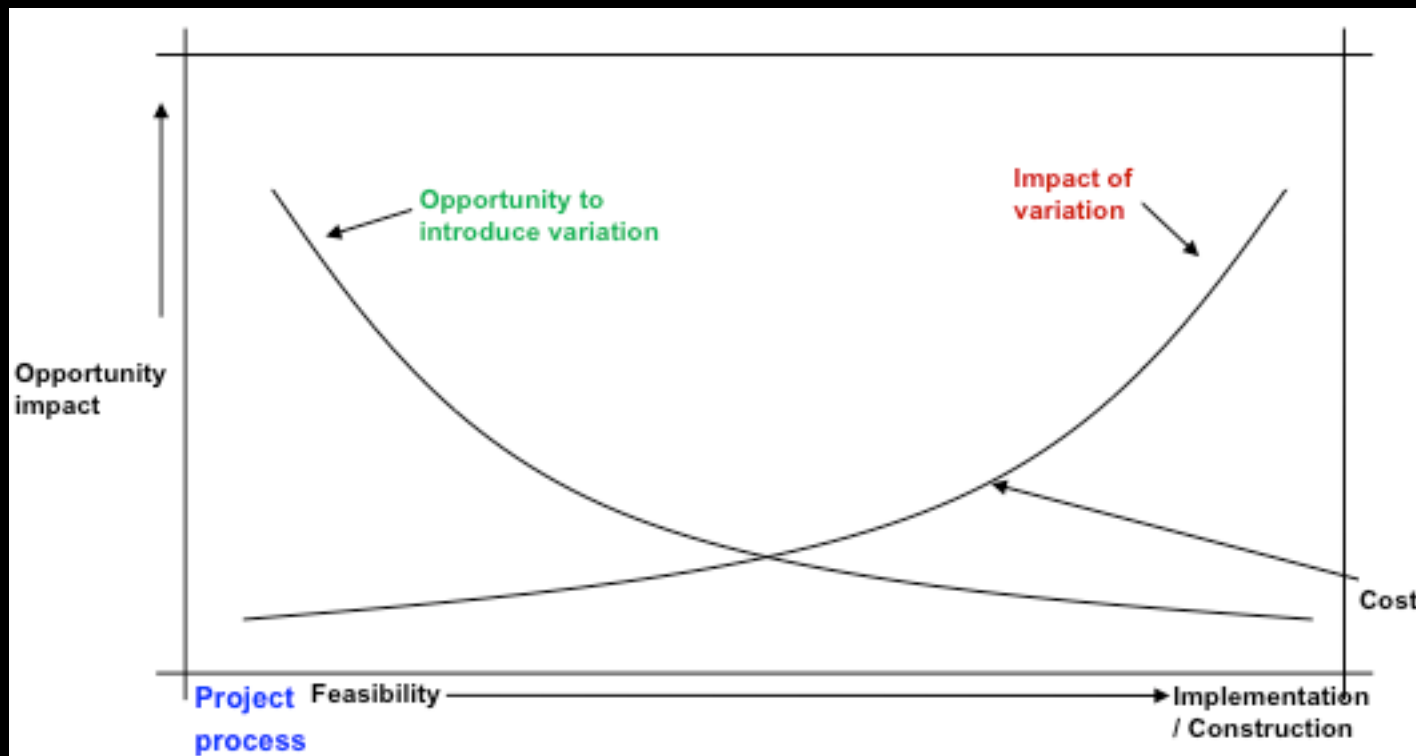


# VALUE MANAGEMENT COURSE



# VALUE MANAGEMENT

- Managing change and project phase



(Source: adapted from Lazarus and Clifton, 2001)

# VALUE MANAGEMENT SKILLSET

- Core Technical Competencies



# CONCLUDING REMARKS

- Required program competencies to produce career ready professionals for the local and global construction industry
- Value Management skillset is one of the core components of construction management program
- Interdisciplinary expertise and Value Management course
- Industry and Academia collaborative approach for defining program competencies
- Basis for a proposed Baccalaureate level Construction Management program



# THANK YOU

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