Course AME6043, Initiation and planning of construction projects - mgpa

Winter: Thursdays 9h to 12h Fall: Tuesdays 18h30 to 21h30

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Website: http://www.grif.umontreal.ca/pages/Gonzalo/orientationmgpa.htm

Course en ligne : <u>www.coursenligne.umontreal.ca</u>

This Masters-level course is an introduction to the basic notions of project initiation and management within the context of the building industry. The course clarifies the role of the different actors of the building industry and seeks to explain the most typical characteristics and constraints of construction projects, including architectural, urban and landscape projects. The course permits a clear understanding of the main difficulties frequently found in construction projects (delays, over budgets, inter-organizational conflicts, etc) and the ways to both prevent and mitigate them.

This course is based on scientific research produced over 32 years by the IF research group (www.grif.umontreal.ca), particularly on project management, organizational design, strategic procurement and project performance. It is also based on the structure of analysis of projects proposed by the Project Management Institute – PMI.

The course includes a strategic view of management and a critical view of the building industry, including also a critical view of the role of architects and architecture in that industry. It takes distance from the tactical and operational views of project management favoring, instead, an approach based on **strategic decision-making from the procurement phase to the life-cycle end of the project**.

Part I

This part takes the form of seminars of presentation and discussion. It includes the presentation of the most important notions of project management and some case studies. It includes:

- Introduction and definitions;
- The systems approach to project management;
- Economic and technical feasibility studies;
- Functional programs and determination of quality standards;
- Strategic planning and strategic procurement in project environments;
- Time management;
- Cost management;
- Quality management;
- Human resource management;
- Conflict management and conflict prevention and mitigation;
- Information and communication management;
- Risk management;

- Project procurement in the building industry.

Parts II and III

These parts include presentations by invited lecturers and the students. Case studies are presented and explained in detail to illustrate the basic notions discussed in Part I.

Part I

lecture 1	Introduction
	Project management
	Systems approach
	Definitions of project, program, planning, initiation, etc.
lecture 2	Project life-cycle
	Economic feasibility
lecture 3	Technical feasibility studies and other studies
	Quality management, the concept of quality
	Standards of quality
lecture 4	Time management
	Cost management
	Human resource management
lecture 5	Communications and conflicts
	'Partnering' and conflict prevention
lecture 6	Strategic planning
lecture 7	Procurement of construction projects

Part II Conferences and invited lectures

Organizational design

Risk management.

lecture 9	Case-study (invited lecture from the building industry)
lecture 10	Case study (invited lecture from a different industry)
lecture 11	Case study (invited lecture from the building industry) and synthesis.

Supply management in the buildiong industry

Part III Synthesis and evaluation

lecture 12	Exam
lecture 13	Presentations by the students and discussion
lecture 14	Presentations by the students and discussion

Evaluation

lecture 8

30%	Exam;
20%	For the 1 st part of the assignment;
40%	For the 2 nd part of the assignment;
10%	For the project presentations.

Marks

excellent :	A+	(4.3)	
	Α	(4.0)	
	A –	(3.7)	
good :	B+	(3.3)	
	В	(3.0)	
	B -	(2.7)	
pass:	C +	(2.3)	
	С	(2.0)	
fail :	C -	(1.99 - 0)	

Bibliography

Text-book:

- Project Management Institute Standards Committee. (1996). A Guide to the Project Management Body of Knowledge ("pmbok guide"), Upper Darby, Pa., Project Management Institute, 176 pp.
- **Ashworth, Alan.** (2002) *Pre-contract Studies: Development Economics, Tenderinbg and Estimating, second edition*, Oxford, Blackwell Science (ISBN 0-632-06472-2, cote: HD 9715 A2 A84 2002).
- **Association of Project Management.** (2000). Project management body of knowledge. Downlowded from Internet www.apm.org.uk Nov, 3 2003.
- **Beaudoin, Pierre.** (1984). *La Gestion par Projet Aspects Stratégiques*, Montréal, Agence d'ARC Inc., 251 pp.
- **Berg, Thomas.** (1992) *Architectural Contract Document Production*, New York, McGraw Hill (ISBN 0-07-004857-6, cote: NA 2584 B47 1992).
- Betts, Martin, (réd.). (1999). Strategic Management of IT in Construction, Oxford, Blackwell Science. TH215 S87 1999
- **Boyce**, **Margaret**. (1987) "Évaluation postérieure des projets de construction", *Actualité immobilière*, vol. xi, no 1 (printemps), pp. 10-18.
- **Bryson, John.** (1988). *Strategic Planning: Threats and Opportunities for Planners*, Chicago, Illinois Planners' Press, American Planning Association.
- Chartered Institute of Building (The). (2002). Code of Practice for Project Management for Construction and Development, Oxford, Blackwell Publishing, 214 pp. (ISBN 1-4051-0309-4; cote: TH438 C63 2002).

- Cleland, David I. (1994). *Project Management, Strategic Design and Implementation*, N.Y., McGraw-Hill Inc., 476 pp. LSH HD 205 C54 1975 (aussi à la bibliothèque des HEC).
- **Couillard, J., et C. Navarre.** (1993). "Quels sont les facteurs de succès des projets? Faut-il plus d'organisation? Plus d'outils? Plus de communication? Plus de planification?" *Gestion 2000*, Bimestriel no 2, avril, pp. 167-190.
- **Emmitt, Stephen.** (2002) *Architectural Technology*, Oxford, Blackwell Science Ltd., 264 pp. (no d'enrégistrement NA 2543 T43 E46 2002).
- Fellows, Richard, David Langford, Robert Newcombe et Sydney Urry. (2002). Construction Management in Practice (2ème édition), Oxford, Blackwell Science, 378 pp.
- **Halpin**, **Daniel**. (2006). Construction management 3rd edition. John Wiley and Sons: United States. (HD9715E82H35 2006)
- Hackett, Mark, et Ian Robinson. (2003) Pre-Contract Practice and Contract Administration for the Building Team, Oxford, Blackwell Science, (ISBN 0-632-05485-9, cote TH 435 P74 2003).
- Henriod, Ernesto, et Jason Le Masurier (réds). (2002). The Contract in Successful Project Management Innovations in Contract Forms & Dispute Prevention and Resolution, Christchurch, N.Z., Centre for Advanced Engineering, 316 pp. (ISBN: 0-908993-30-7; cote: K891 B8 C66 2002).
- Jaggar, David, et al.. (2002) *Building Design Cost Management*, Oxford, Blackwell Science (ISBN 0-632-05805-6, cote TH 435 B85 2002).
- Karim, K., et al. (réds). (1999). Construction Process re-engineering '99, Sydney, University of New South Qales, Australian Centre for Construction Innovation (HD 9715 A2 I584 1999).
- **Kertzner, Harold.** (1984). *Project Management, a Systems Approach to Planning, Scheduling and Controlling*, N.Y., Van Nostrand Reinhold Co., 937 pp.
- Langford, David, et Steven Male. (2001). Strategic Management in Construction, Second edition, Oxford, Blackwell Science, 250 pp. (ISBN 0-632-04999-5, cote: TH 438 L36 2001).
- **Langston**, **Craig**. (2005). *Life-cost approach to building evaluation*. Elsevier: Sydney. (TH435L36 2005)
- Levy, Sidney M. (c1987). Project Management in Construction, New York, McGraw-Hill.
- **Loosemore, Martin.** (2000). *Crisis Management in Construction Projects*. Washington D.C., American Society of Civil Engineers (TH 443 L66 2000).
- Masterman, Jack W.E. (2002). An Introduction to Building Procurement Systems, 2nd Edition, London, Spon Press, 239 pp., ISBN 0-415-24642-3; (HD 39.5 M377 2002).
- Mawhinney, Mark. (2001) *International Construction*, Oxford, Blackwell Science (ISBN 0-632-05853-6, cote: HD 9715 A2 M39 2001).
- **Moore, David.** (2002). *Project Management Designing Effective Organisational Structures in Construction*, Oxford, Blackwell Science Ltd., 288 pp. (ISBN 0-632-06393-9).
- **O'Shaughnessy, W.** (1991). La Faisabilité de projet, une démarche vers l'efficience et l'efficacité, Trois Rivières, Les Éditions SWG.
- **Pinto, J.K., et D.P. Slevin.** (1988). "Critical Success Factors across the Project Life Cycle", *Project Management Journal*, vol. xix, no 3, pp. 67-75.
- **Samad Kazi, Abdul.** (2005), *Knowledge management in the construction industry.* Idea : United States. (HD9715A2K66 2005).

- **Segrestin, Denis.** (2004). *Les chantiers du manager*. Armand Colin : Paris. (HD33S44 2004).
- Walker, Anthony. (2002) *Project Management in Construction, Fourth edition*, Oxford, Blackwell Science (ISBN 0-632-05736-X, cote HD 9715 A2 W347 2002).
- Walker, Derek, et Keith Hampson (reds). (2003). Procurement Strategies a Relationship-based Approach, Oxford, Blackwell Science Ltd., 300 pp. ((ISBN 0-632-05886-2).
- Walker, Ian, et Robert Wilkie. (2002) Commercial Management in Construction, Marston Book Services (ISBN 0-632-05827-7).
- **Williams**, **Trefor**. (2007). *Information technology for construction managers, architects and engineers*. Thomson: United States. (TH215W55 2007)
- Winch, Graham M. (2002). *Managing Construction Projects*, Oxford, Blackwell Science (ISBN 0-632-05888-9, cote: TH 438 W56 2002).