**THE UNIVERSITY OF MANCHESTER**

**MANCHESTER BUSINESS SCHOOL**

**Projects: Organizing, Management, and Strategy**

**2016/2017**

### Course Code BMAN30982

### Timetable Fridays 9am-10.50pm

**Room Location**: Ellen Wilkinson A2.6

**Course Coordinator**

Nuno Gil, Professor of New Infrastructure Development

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**Office hours**: by appointment (MBS East F5)

### Level 3 (final year)

**Aim and objectives**

This course aims to equip students with knowledge and understanding of the fundamental principles, theory, and practical tools and methods essential to help them succeed in project-based organizations (‘projects’). It will develop students' general understanding of the managerial challenges and decision-making processes that arise along the project life-cycle from inception of an idea through its gestation and delivery to project handover. Project-based organizing is a pervasive form of structuring work to achieve a goal across the private, public, and private-public sectors. Projects[[1]](#footnote-1) as a *form of organizing work* can be set up to develop a:

* new commercial product (for example a mobile phone, software, car, computer, furniture)
* new service (for example in education, health-care, insurance, finance, banking)
* new complex socio-technical system (e.g., power plant, railway, wind farm, airport)
* new organization form (e.g., merger and acquisition, government restructuring)
* new idea (R&D projects to develop new drugs, perfumes, apps, materials)

During the course we will discuss how the structure of the managerial problems and choices evolves along the life-cycle of a project organization, and how problems vary in function of context (e.g., private vs. public, stable vs. unstable environment, closed vs. open system). Specifically, the course will provide students with theoretical and practical knowledge to discuss proficiently the following questions, and resolve related real-world problems:

* what is a ‘project’ as a form of organizing work?
* why do we need project organizations? Where do projects come from?
* who creates projects? who finances them? who manages them? who governs them?
* What are the structural differences between search and execution project organizations?
* what does project performance mean? how can we measure project performance?
* What is the relationship between project organizing and the environment?
* Which basics tools are employed to support the practice of managing projects?
* how does project management practice fit with bodies of knowledge of professional organizations such as the Project Management Institute (US), Association for Project Management (UK), and regulation such as the Office of Government Commerce (OGC) Gateway
* How does project management practice scale up in large organizations (‘megaprojects’)?
* What are the cutting-edge practices and conceptual framings for managing projects?

**Learning Outcomes**

In this course, we conceptualize a ‘project’ as a form of organizing work that assembles a collective of multiple actors (individuals and organizations) in order to achieve an identifiable system-level goal. By conceptualizing a project as an organizational artefact, the focus of this course is to understand how to design project organizations that work efficiently and effectively. We will study project organizations which assemble resources all of which lie under the control of a single organization (in-house projects), as well as projects that pool resources controlled by independent actors. In the latter case, project organizing involves forging strategic alliances and buyer-supplier relationships. In this course, we will pay particular attention to professional roles in project organizations. We will study small projects led by project managers. We will also study large project organizations requiring complex management structures (e.g., project and program boards) and multiple top management roles, e.g., program (a set of projects) managers, project directors or leaders (the managers of the project managers). The course will focus on the two major tasks faced by managers of project organizations: i) division labor across specialized agents; and ii) integration of effort. The integration of effort in turn requires resolving problems of coordination through provision and processing of information, and problems of cooperation through provision of rewards, negotiation, and norms of cooperation (mutual trust, reciprocation, compromise).

We will discuss project organizational performance in terms of efficiency and effectiveness. For example, a government can set up a ‘megaproject’ to develop a new railway. This organization will unify under the system goal multiple actors including financiers, regulators, public agencies, and specialist suppliers. To understand the performance of this megaproject, we need to study the extent it is capable to: i) *efficiently* deliver an operating railway (efficient use of time and money); and ii) deliver a railway that *effectively* meets the needs of the promoter (central government) as well as of a large number of actors including users (train operators, passengers), local communities, local governments, transport agencies, and others.

In sum, throughout the course, students will learn:

1. Processes and organizational structures endemic to project organizing;
2. project stakeholders and stakeholder classifications;
3. tools and techniques to support project management practice (e.g., activity-based networks, CPM-PERT, earned value, line of balance, risk registers, Monte Carlo simulations)
4. alternative framings to define and measure performance of project organizations
5. contingencies affecting choices in project organizing (environment, scale, technology)

### Pre- or co-requisites None

**Dependent course units** None

**Semester** Second semester

**Credit Rating** 10 units

**Employability**

Developing a capability to manage project-based organizations will boost your employability credentials. Work to develop new products and services happens through project-based forms of organizing across a range of professional settings including the private services industries (banking insurance, marketing, health care, law), infrastructure sector, product development (development of new ideas into commercial products and services), manufacturing, and local and central government. Furthermore, some case material will be grounded in contemporaneous large infrastructure development projects happening around the world. According to the McKinsey Global Institute, the world invests around $2.5 trillion a year on transportation, power, water, and telecommunications, and it would need to invest an average of $3.3 trillion annually to support current rates of growth—with emerging economies accounting for around 60 percent of this need.[[2]](#footnote-2) This is a sector with high employability, and thus you knowledge of how things get done in this sector across different contexts with different systems of norms, beliefs, and regulations can open many professional opportunities.

**Course Outline**

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| # | DATE | TOPIC |
| 1 | 3 Feb | Introduction What is a project organization? Project organization lifecycle (project-based search vs. execution)? Project organizations as integrative devices (intra-organizational and interorganizational) ; project performance indicators (scope, budget, schedule, others) Read: Galbraith JR 1974 Organization Design : An Information Processing View Interfaces 4(3) 28-36  Gaddis, P.O. (1959) The Project Manager. *Harvard Business Review*, May-June  **Additional Reading:**  Simon, HA, March JG1993. Organizations Revisited. Industrial and Corporate Change 2 (3) 299-316 |
| 2 | 10 Feb | Designing the project organization structure Project organization structure, grouping by activity and by purpose; differentiation and integration; decision-making power; alternative forms of organizing  **Read**:  Puranam, P. (2014). How organizations work: A micro-structural approach to organizational design, Chapter 1.  Elton, J., Roe, J. (1998). Bringing Discipline to Project Management *Harvard Business Review,* March-April 153-159.  **Additional Reading:**  Puranam, P. Goetting, M. 2012. Teaching Note on Analyzing Organizational MacroStructures.  Corporate Executive Board 2009. Frameworks for Organizational Design. Executive Brief |
| 3 | 17Feb | **Project organizations and environment**  Who is a project organization participant? Stakeholder vs. development partner.  **Read:**  Mitchell, R.K., Agle, B.R., Wood, D.J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts, Academy of Management Review, 22 (4) 853-886.  Lundrigan, C., Gil, N., Puranam, P. 2014.The (Under) Performance of Mega-projects: A Meta-organization Approach. MBS Working Paper.  **Additional Reading:**  Puranam, P., Alexy, O., Reitzig, M. (2014). What’s “new” about new forms of organizing? Academy of Management Review, 39(2) 162-180.  **COURSEWORK 1 HAND-OUT (SUBMIT March 3)** |
| 4 | 24 Feb | Project planning with Gantt charts; activity-based networks Activity-based network scheduling; the critical path method  **Read:**  *Smith, S., Bleloch (1994)* Introducing Models and this Book. *How to Model it. Problem Solving for the Computer Age. McGraw-Hill*  De Geus, A.P. (1994). Modeling *to Predict or to Learn? Modelling for Learning Organisations,* Ed. Senge Morecroft and John Sterman. System Dynamics Series;  **Additional Reading**  Highsmith, J., Cockburn, A. (2001). Agile Software Development: The Business of Innovation. Computer, 9, 120-127.  **\*\* COURSEWORK 1 SEMINAR \*\*** |
| 5 | 3 Mar | Project planning with activity-based networks; PERT; Monte Carlo simulation **Read:**  Perry, C., Greig I.D. (1975) Estimating the Mean and Variance of Subjective Distributions in PERT and Decision Analysis. *Management Science 21 (12)1477-1480*  **Additional Reading:**  Gil, N and Pinto, J. (2016). Pluralism at the Front-end of Complex Systems: Governance and Performance Implications. MBS Working Paper  **COURSEWORK 1 SUBMISSION DEADLINE** |
| 6 | 10 Mar | The Line of balance methodPlanning for projects with repetitive activities **Read:** Harris, R.B. and Ioannou, P.G. (1998) Scheduling Projects with Repeating Activities*. J. Construction Engineering and Management*, July/August, 269-278.  Lumsen, P. (1968). Principles of the Method (chapter1) *The Line of Balance Method.* Industrial Training Division. Pergarmon Press Limited.  **Additional Reading:**  Gulati, R., Puranam, P., Tushman, M. 2012. Meta-organization design: Rethinking Design in Interorganizational and Community Contexts. *Strategic Management Journal*, 33, 571-586.  **COURSEWORK 2 HAND-OUT (SUBMIT MARCH 31)** |
| 7 | 17March | **Project controls** Time-cost trade-offs, earned value method **Read**  [*https://en.wikipedia.org/wiki/Earned\_value\_management*](https://en.wikipedia.org/wiki/Earned_value_management)  Shapiro, A., Lorenz, C. (2000). Large-scale projects as complex systems: Managing “Scope Creep”. *The Systems Thinker* 11 (1) 1-5.  **Additional Reading**  Baldwin, CY. 2015. Bottlenecks, Modules and Dynamic Architectural Capabilities Harvard Business School Finance Working Paper No. 15-028. Available at SSRN: <http://ssrn.com/abstract=2512209>  **\*\* COURSEWORK 1 FEEDBACK \*\*** |
| 8 | 24March | **Risk management, change control**  Risk likelihood-impact matrices, traffic light systems, change management systems  **Read**:  De Meyer, Loch, C.H., Pich, M.T. (2002). Managing Project Uncertainty: From Variation to Chaos. Sloan Management Review, MIT Winter  **Additional Reading:**  Gil, N., Tether, B. (2011). Project Risk Management and Design Flexibility: Analysing a Case and Conditions of Complementarity. *Research Policy*  **COURSEWORK 2 SEMINAR** |
| 9 | 31 March | **Design Flexibility, Modularity, System Decomposability**  **Read:**  Lenfle, S., Loch, C. (2010). How Project Management Came to Emphasize Control over Flexibility and Novelty? California Management Review, 53 (1)33-55  Fichman et al. (2005). Beyond Valuation: ‘Options Thinking’ in IT Project Management. *California Management Review.*  **Additional read:**  Simon, H. (1962). The Architecture of Complexity: Hierarchic Systems. *Proc. American Philosophical Society*, 106: 467-482.  **COURSEWORK 2 SUBMISSION DEADLINE**  **COURSEWORK 3 (INDIVIDUAL) HAND-OUT (SUBMIT MAY 12)** |
| 10 | 28 April | **Introduction to Contracts**  What is a contract? What is a contracting strategy? What are packaging problems?  **Read:**  Williamson, O. (1979). Transaction-cost economics: the Governance of contractual Relations. *Journal of Law and Economics*, Vol. 22, No. 2 (Oct., 1979), pp. 233-261  **Additional Reading:**  Santos, F. Eisenhardt, K. (2005). Organizational boundaries and Theories of Organization. *Organization Science*, 16 (5) 491-508..  **\*\* COURSEWORK 2 FEEDBACK \*\*** |
| 11 | 5May | **Project-based Commercial Relationships**  Types of contracts; fixed-price contracts; reimbursable contracts; capabilities  **Read:**  Gil, N. (2009). Developing Project Client-Supplier Cooperative Relationships: How much to Expect from Relational Contracts? *California Management Review*, Winter, 144-169  Jacobides, M.G. ,Winter, S.G. (2005). The Co-evolution of Capability and Transaction Costs: Explaining the Institutional Structure of Production, Strategic Management Journal, 26 (5) May, 395-413  **Additional reading:**  Williamson, O. (1993). Transaction Cost Economics and Organization Theory. Industrial and Corporate Change, 2 (2) 107- 156  **COURSEWORK 3 SEMINAR** |
| 12 | 12 May | Collective Action. **Read:**  Hardin, G. ( 1968). The Tragedy of the Commons, *Science. New Series, 162 (3859) 1243-1248*  Ostrom, E. 2010. A Long Polycentric Journey. Annual Review of Political Science 13(1) 1-23  **COURSEWORK 3 SUBMISSION DEADLINE** |

**Course Materials**

The course will be supported by a Blackboard virtual learning environment which will include course materials, assignments, and the reading list as specified in the course outline.

### Methods of Delivery

Delivery will involve lectures and seminars/tutorials.

**Lecture Hours**

Twelve weeks (2 hours per week over 12 weeks). Attendance of all sessions is compulsory, and will be monitored. Spot checks will take place across lectures

**Private Study**: 76 hours

**Total Study Hours:**  100 hours

### Assessment Methods and Relative Weightings

60% group coursework (groups of four students, ideally). The group coursework will consist of two submissions spread out across the semester. Coursework must be submitted electronically through Blackboard. For dysfunctional groups, we will run a peer review questionnaire through which each member of the group will quantify the contribution of the other members of the group to ensure coursework grades are fair and proportional to the input of each member. Feedback will be provided within 2 weeks of submission.

40% Individual coursework

### Deadlines for Submission of Coursework

As specified in the course outline

**Penalties for Late or Non-Submission of Assignments**

*Unexcused late submission of assessed work will be penalized to avoid the unfair advantaging and disadvantaging of students.*

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| **Penalties for late submission are as follows:** | |
| **Submission after the designated deadline on the day of submission** | For any piece of assessed coursework submitted after the designated deadline on the day of submission:  (i) a penalty of **5 marks** will be deducted from the mark for the piece of assessed work if the work is submitted after the designated deadline but **on the same day** of submission;  For example, assuming the coursework deadline is 2.00pm and the maximum number of marks to be gained is 100, if you submit your coursework at 2.15pm and you would normally get a mark of 65%, a mark of 60% would be given.  (ii) a penalty of **10 marks** per day for up to 10 days will be deducted from the mark for the piece of assessed work if it is submitted late.  For example, assuming the maximum number of marks to be gained is 100, if the coursework would normally get a mark of 65% and is submitted a day late, a mark of 55% will be given. If the coursework is submitted 5 days late, a mark of 15% will be given.  All days including Saturdays, Sundays and Bank Holidays count. This will be regardless of how much the assessed work counts towards the final mark. |

**Please note that this is a Faculty policy for Undergraduates and it is not at the discretion of the individual lecturer to abate the policy.**

### *If a student has a genuine reason for late or non-submission of an assignment, this should be reported as soon as possible to the Undergraduate Office (Room D20, MBS East).*

**Marking Criteria**

70+ (1st) An excellent answer, showing a high degree of mastery of the subject matter, with a well-developed ability to analyze, synthesize and apply knowledge and concepts. The answer is well directed and relevant to the question. It is free of all but minor errors, with a high level of technical competence. Evidence of critical reflection, of ability to tackle questions and issues not previously encountered, and of wider reading. Ideas are expressed clearly and written with authority and insight.

60-69 (2.1) A good piece of work, showing a sound and thorough grasp of the subject-matter, though possibly lacking in the breadth and depth required for a first-class mark. A good attempt at analysis, synthesis and application of knowledge and concepts, but may be more limited in scope than that required for a mark of 70+. Most aspects of the question set are covered. Work is generally technically competent, but there may be a few gaps leading to some errors. Some evidence of critical reflection, and the ability to make a reasonable attempt at tackling questions and issues not previously encountered. Ideas are expressed with clarity, with some minor exceptions.

50-59 (2.2) A fair piece of work, showing grasp of major elements of the subject matter but with some gaps or areas of confusion. Only the basic ideas of the question set are covered. The attempt at analysis, synthesis and application of knowledge and concepts is superficial, with a heavy reliance on course materials. Work may contain some errors, and technical competence is at a routine level only. Ability to tackle questions and issues not previously encountered is limited. Little critical reflection. Some confusion and immaturity in expression of ideas.

<50 (3rd) A poor piece of work, showing some familiarity with the subject matter, but with major gaps and serious misconceptions. Only some of the basic requirements of question are achieved. There is little or no attempt at analysis, synthesis or application of knowledge, and a low level of technical competence, with many errors. Difficulty in beginning to address questions and issues not previously encountered. Inability to reflect critically on an argument or viewpoint. Ideas are confused, poorly expressed and structured.

<40 (Fail) Not of a passable level. A poor piece of work, showing little or no familiarity with the subject matter. Almost no relevance to the question set. Total inability in beginning to address the question. Answer frequently incoherent.

### Feedback to Students on Progress

The lecturer will aim to provide feedback on coursework within 2 weeks of the submission date. Students will also receive feedback following the examination on how each question was answered.

**Methods of Feedback from Students/Course Evaluation**

Students are encouraged to provide feedback in relation to the course notably by: 1) speaking with the lecturer at the end of each session; and 2) sending an email to the lecturer requesting a meeting

**Penalty and Plagiarism Information**

**Penalties for Late or Non-Submission of Assignments**

Unexcused late submission of assessed work will be penalised in order to avoid the unfair advantaging and disadvantaging of students.

In accordance with the University’s Policy on Submission of Work for Summative Assessment on Taught Programmes, work submitted after the deadline will be marked but the mark awarded will reduce progressively for each day, or part thereof, by which the work is late.

**The mark awarded will reduce by 10 marks per day for 5 days (assuming a 0-100 marking scale), after which a mark of zero will be awarded.**

The full Policy may be found via the following link:

[http://documents.manchester.ac.uk/display.aspx?DocID=24561](https://outlook.manchester.ac.uk/owa/redir.aspx?C=8ajyFn-fH-_GIyUec1gN_wHnZM4gYvqwULERDt1F_N5qVangFTvUCA..&URL=http%3a%2f%2fdocuments.manchester.ac.uk%2fdisplay.aspx%3fDocID%3d24561)

*Please note that it is not at the discretion of the individual lecturer to abate University Policy.*

Example:

Assuming the maximum number of marks to be gained is 100 and the submission deadline is 3.00pm.

If the coursework would normally be given a mark of 65% and is submitted **after** 3.00pm (ie 3.01pm onwards) on the submission day but **before** 3.00pm the following day, a penalty of 10 marks will be applied and a mark of 55% would be awarded.

Late penalties are determined by the time on the receipt you receive ie it is not the time when you click to upload your work.  It follows that you should allow yourself sufficient time to submit your work before the deadline and that you don’t leave it until the last minute.

**Plagiarism**

Please refer to the Plagiarism section on the online undergraduate handbook to see the definition of plagiarism

https://ughandbook.portals.mbs.ac.uk/Myassessment/Plagiarismandotherformsofacademicmalpractice/Plagiarism.aspx and other forms of academic malpractice;

1. Note the word ‘project’ in common English has multiple meanings and is ambiguous since it designates both an undertaking requiring concerted effort or an extensive task, and thus refers simultaneously to the task, organization, and the subject of the task. In this course we see ‘projects’ as project-based organizations [↑](#footnote-ref-1)
2. Woetzel, J., Garemo, N., Mischke, J., Hjerpe, M., Palter, R. (2016). Bridging Global Infrastructure Gaps. June, McKinsey Global Institute MCKinsey & Company [↑](#footnote-ref-2)