


## ADX 5270: Strategic Information Systems Management

### Course Outline – Fall 2018 (November – December)

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### 1. Class Convention:

- Class Venue: **Centre for Executive Leadership** (99 Bank Street, Suite 200)
- Scheduled Class Dates: **November 02, 10, 16, 24, 30, December 08**

### 2. Course Overview and Objectives:

Evolving through automation-based initiatives, Information systems (IS) and their underlying information and communication technologies (ICTs) have grown to assume a strategic role in improving business performance. Contemporary IS/ICTs can assist managers in solving problems, making decisions, modeling successful business practices, optimizing business processes, and transforming modern businesses into knowledge-based enterprises. As a business function, IS spans a variety of roles ranging from that of a supporter of effective business operations to that of a driver for new business opportunities.

This course presents a business value perspective of IS, and introduces the audience to a broad range of relevant business models, strategy concepts, technical vocabulary, exemplar applications, and analysis frameworks. The objective of this course is to understand the dynamic effect of ICTs on organizational development, and to deliberate best practices for the strategic integration of technology in business operations. Towards this end, the course will utilize a combination of case analysis sessions and seminar style discussions to explore socio-technical critical success factors underlying effective IS strategy formulation and successful digital transformation initiatives.

### 3. Performance Evaluation:

The course grading scheme comprises of several components highlighted herewith, alongside their relevant weights. A description of each component follows in Section 8 of the syllabus.

Components	Responsibility		Tasks & Deliverables	Weight on Final Grade
	Individual	Workgroup		
<b>Assignment 1A: Personal Learning Objectives</b> (What I Want to Learn in the Course)	•		2-Page Memo	10%
<b>Assignment 1A: Course Reflections</b> (What I Learned in the Course)	•		3-Page Memo	10%
<b>Assignment 2: IS Strategy Interviews</b> (Linking Theory to Practice)		•	1-Page Project Plan	5%
		•	5-Page Brief	25%
		•	Class Presentation	15%
<b>Take-Home Final Exam</b> (MCQs and Short-Answers)	•		Take-Home Final Exam	35%
<b>Σ =</b>				<b>100%</b>

#### **4. Course Contribution to Development of a General Management Perspective:**

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The course is centered on the “*management*” of information technology and not on “*technology*” itself. It applies to all settings, small and large business, non-profit organizations, or government agencies. The course will describe the roles of the general manager in the governance and management of IS through a discussion of planning, organizing, coordinating, leading, controlling information technology (IT) initiatives. This course aims to assist candidates in becoming knowledgeable participants in IS decisions by improving their digital fluency (the ability to articulate the value of digital technologies to achieve organizational objectives).

#### **5. Links to the Telfer Executive MBA Learning Goals:**

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This course links to *Telfer MBA Learning Goal 2 (Understanding & Integrating Business Functions)* and to *Learning Goal 3 (Developing a Strategic Perspective)*. With an emphasis on the implementation and institutionalization of digital technologies across business functions, candidates are expected to develop an understanding of policies and procedures, roles and responsibilities, key success factors, and performance metrics that characterize a comprehensive IS strategy.

#### **6. Course Materials:**

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**Practitioner Periodicals (Weekly Assigned Reading):** Selected articles from Digital McKinsey Collections, McKinsey Quarterly, and Deloitte Review will be posted online as assigned weekly readings. Class discussions will draw upon content from these articles.

**Harvard Business Press Cases (Class Discussion):** In addition to other case vignettes and examples from readings, three specific cases have been selected for class discussion in this course. A case-pack will be made available online.

**Academic Reference Textbook (Suggested):** Peppard, J., & Ward, J. (2016). *The Strategic Management of Information Systems: Building a Digital Strategy*. John Wiley & Sons. Some course material will be sourced from this textbook. While the textbook is optional for the course, it makes for a good reference book on technology management.

**Online Repository:** Brightspace D2L will be utilized in this course as the content, communication and collaboration medium linking the instructor and candidates. The website will act as a front-end to the document repository which will be used for storing lecture notes, handouts, and other electronic supplements. It is your responsibility to check the course website regularly for any announcements and/or updates. If you experience any technical difficulties with the course website, please email me at [umar.ruhi@uottawa.ca](mailto:umar.ruhi@uottawa.ca) for help.

## 7. Tentative Course Schedule:

The following tentative class schedule outlines the seminar discussion themes for each lecture session.

Date	Discussion Themes	References	Milestones & Deliverables
Nov. 2	<ul style="list-style-type: none"> <li>▪ <b>Course Overview</b></li> <li>▪ <b>Strategic Management of IT:</b> <ul style="list-style-type: none"> <li>○ Business Value of IT</li> <li>○ IT for Competitive Advantage</li> <li>○ IT Mega Trends &amp; Technology Outlook</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Overview of Technology Management Practice.</li> <li>▪ The case for digital reinvention.</li> <li>▪ On Becoming an IT-Savvy CEO.</li> </ul>	
Nov. 10	<ul style="list-style-type: none"> <li>▪ <b>Defining the Digital Enterprise:</b> <ul style="list-style-type: none"> <li>○ Cross-Functional Role of ICTs</li> <li>○ Data, Information &amp; Knowledge Management</li> <li>○ Industry 4.0 &amp; IS Strategy</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ The seven decisions that matter in a digital transformation: A CEO's guide to reinvention.</li> <li>▪ Industry 4.0 Paradox.</li> <li>▪ Case 1</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Assignment 1A</b></li> <li>▪ <b>Case 1 Discussion Session</b> (Surviving SAP Implementation in a Hospital)</li> </ul>
Nov. 16	<ul style="list-style-type: none"> <li>▪ <b>IT Management Best Practices:</b> <ul style="list-style-type: none"> <li>○ Traditional &amp; Emergent Operating Models for IT Management</li> <li>○ Large-Scale IT Implementations</li> <li>○ Business Transformation &amp; IT Change Management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Next-generation operating model for the digital world.</li> <li>▪ The cornerstones of large-scale technology transformation</li> <li>▪ How to start building your next-generation operating model.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Assignment 2 Project Plan</b></li> <li>▪ <b>Guest Speaker: Doris Simcich</b></li> </ul>
Nov. 24	<ul style="list-style-type: none"> <li>▪ <b>IT Management in the Next-Generation Enterprise:</b> <ul style="list-style-type: none"> <li>○ New IT Delivery Models</li> <li>○ Co-IT (Consumerization, Cooperative, Confluence)</li> <li>○ Agile IT Management and <b>DevOps</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Learning from leaders in cloud-infrastructure adoption.</li> <li>▪ Case 2</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Case 2 Discussion Session</b> (FinTech: Choosing a Cloud Services Provider)</li> </ul>
Nov. 30	<ul style="list-style-type: none"> <li>▪ <b>Emerging Technology Platforms &amp; IS Strategies:</b> <ul style="list-style-type: none"> <li>○ Focus on Emerging Technologies &amp; Business Value Propositions</li> <li>○ Scope: Blockchain Technology; Data Analytics; API Ecosystems</li> <li>○ IS Strategy Guidelines</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Blockchain and the five vectors of progress</li> <li>▪ Case 3</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Guest Speaker: Karim Sultan</b></li> <li>▪ <b>Case 3 Discussion Session</b> (UCB: Data is the New Drug)</li> </ul>
Dec. 08	<ul style="list-style-type: none"> <li>▪ <b>Emerging Technology Platforms &amp; IS Strategies (contd.)</b></li> <li>▪ <b>Assignment 2 Presentations</b> <ul style="list-style-type: none"> <li>○ IS Strategy Interviews: Linking Theory to Practice</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Predictably inaccurate: The prevalence and perils of bad big data</li> <li>▪ API Imperative</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Assignment 2 Report</b></li> <li>▪ <b>Assignment 2 Presentations</b></li> </ul>
Dec. 17	<ul style="list-style-type: none"> <li>▪ <b>Assignment 1B &amp; Take-Home Final Exam (Due on December 17)</b></li> </ul>		<ul style="list-style-type: none"> <li>▪ <b>Assignment 1B</b></li> <li>▪ <b>Take-Home Final Exam</b></li> </ul>

### Notes:

- i) The course schedule may be modified as necessary to meet the course learning objectives. Any such changes will be announced, in class, and/or, posted on the course website.
- ii) Electronic versions of all deliverables are due by their posted deadlines according to submission instructions posted on the course website.

## 8. Performance Evaluation Components:

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### 8.1 Assignment 1 – Personal Learning Objectives & Lessons Learned (*Individual*)

This assignment will allow you to set learning objectives and evaluate what you learned during the course. The assignment is split into two parts: a first part (Assignment 1A) where you will set your learning objectives to be submitted for Class 2; the second part (Assignment 1B) will make you reflect on the skills and experiences you have acquired and how you can apply them in your professional context, which is to be submitted at the end of the course, one week after Class 6.

#### 8.1.1 Assignment 1A: Personal Learning Objectives (10%)

- Read the course syllabus and articles from Classes 1 and 2. Browse the other articles posted on Brightspace. Submit your learning objectives in memo format (2 pages maximum) covering the following:
  - Identify specific quotes you find insightful, intriguing or that surprised you. How do they contrast with your present perception of the role of general managers in the management of IT?
  - What do general managers practically do in the management of IT in the organization you work for? How does this contrast with your class 1 readings?
  - What are your expectations and objectives for this course? What do you want to learn?
  - Identify possible organizations that you could engage for Assignment 2. What would you like to contribute to assignment 2?
- Memo Format and Submission Requirements:
  - Please use a 10 or 11-point font size, and single-spaced content layout.
  - You can use paragraphs, bullet-points and tables as you deem fit.
  - Endnotes referring to class readings, cases, and assignments are mandatory (use the APA citation style).
  - Submit your assignment in electronic format through Brightspace on or before the day of the second class.
  - Provide a copy of your assignment to all your team colleagues.
- Marks Breakdown:
  - Clarity of Learning Objectives – 5 points
  - Assignment Contribution Suggestions – 5 points

#### 8.1.2 Assignment 1B: Course Reflections (10%)

- Review your Assignment 1A and reflect on your readings, class notes, your assignments and those of your colleagues. Expand your plan by writing a (3 pages maximum) summary of what you learned in this course and the skills and experiences you gained. Discuss the following questions:
  - The course described various themes described on page 3 of the course syllabus. What are your key take-aways for each theme? How and when can you apply each theme in your professional context?
  - Did you reach the learning objectives you established in your course learning plan? Explain. Highlight unforeseen learnings, what was unexpected?
  - Describe your experience, learnings and contributions for Assignment 2.
- Memo Format and Submission Requirements:
  - Please use a 10 or 11-point font size, and single-spaced content layout.
  - You can use paragraphs, bullet-points and tables as you deem fit.
  - Endnotes referring to class readings, cases, and assignments are mandatory (use the APA citation style).
  - Submit your assignment in electronic format through Brightspace on or before the day of the second class.
- Marks Breakdown:
  - Analysis of Lessons Learned – 5 points
  - Application in Professional Context – 5 points

## 8.2 Assignment 2 – IS Strategy Interviews (Linking Theory to Practice) (Workgroup)

The objective to this assignment is to gain a real-world perspective of the role and contribution of IT to business goals, develop an understanding of evolving IT operating models, and recognize IS best practices being followed in organizations.

### 8.2.1 Approach:

- Select an organization for which you can interview the CIO/CTO or another senior management professional leading the IT practice within the organization.
- Discuss with 2<sup>nd</sup> year Executive MBA candidates, their experience in organizing and completing this project.
- Interview the CIO/CTO.
- Discuss your findings (and ask further questions) with another executive or senior manager within the organization who is part of IT governance, possibly in a separate line of business.
- Benchmark your findings with those of another group.
- This assignment is “*management consulting*” oriented. Please make the best possible use of the relevant course materials from ADX 6269: Management Consulting.

### 8.2.2 References:

- You are encouraged to draw upon regular course readings, as well as these specific references provided for Assignment 3 (posted online):
  - 20 Questions Directors Should Ask About IT
  - Escaping the IT Abyss
  - Achieving and Sustaining Business-IT Alignment
  - Assessing IT-Business Alignment
  - Five questions boards should ask about IT in a digital world?

### 8.2.3 Deliverables & Submission Requirements:

#### ▪ Assignment 2 Project Plan (Due: Week 3)

One (1) page including:

- How are you using the “Management consulting” course material?
- Advice and guidance on this assignment from previous Executive MBA candidates;
- Describe the organization for which you will evaluate the management of IT;
- Names and titles of the two (2) executives you will interview;
- Critical milestones and deliverables

#### ▪ Draft Brief (Optional) (Due: Week 5)

If you wish, you can submit a draft brief (even if it incomplete) during week 5. I will provide some feedback within 72 hours.

#### ▪ Class Presentation (Due: Week 6)

- Summary Slide deck of five (5) slides.
- Please submit your slides (PPT or PDF) through Brightspace.
- In-class presentation is required and will count for 15% out of the 40% allocated to assignment.
- It is okay if some members of the group do not participate in the class presentation.

#### ▪ Final Brief (Due: Week 6)

- A five (5) pages management brief along with relevant annexes for presenting background and analysis.
- Please use a 10 or 11-point font size, and single-spaced content layout.
- You can use paragraphs, bullet-points and tables as you deem fit.
- Endnotes referring to class readings, cases, and assignments are mandatory (use the APA citation style).
- Please submit electronic version through Brightspace, AND a paper copy in class during the final class session.

#### ▪ Mark Breakdown for Assignment 3

- Assignment Project Plan – 5 points
- Class Presentation – 15 points
- Management Brief – 25 points (see Requirements on Next Page)
  - Analysis & Structure – 20 points
  - Quality of Recommendations – 20 points

## 8.2.4 Topics to be Covered in Your Management Brief:

### ▪ Background

- Overview of organization, recent financial performance, industry, and competitors
- What are the organization's current business priorities and objectives?
- CIO/CTO and business line manager professional backgrounds. Reporting relationships with CEO
- CIO/CTO budget as a percentage of total revenue, IT staff as a percentage of total staff.

### ▪ Business-IT Alignment

- What are the organization's priorities? Does IT support each priority and how? What are the organization's most valuable information assets? Are these assets well maintained, protected and used strategically? What are key applications processing the information and are they modern, flexible and reliable?
- Are there strategic outsourced contracts?
- What is the IT organization track record: perceived strengths/weaknesses and recent successes/failures?
- Describe the IT governance framework: Is IT governance clearly linked to corporate governance? Who makes strategic decisions about IT, are IT investments aligned with business goals? Is the business value of IT tracked and communicated? Benchmark governance using the California Management Review reference article, particularly with respect to enablers and inhibitors.
- What is the IT budget allocation versus the typical breakdown of IT spending?
- What are major IT projects and planned over the next 3 years? Are these aligned with the business priorities and objectives?
- What practices for digital transformation are employed by the organization (e.g. discover, design, deliver, de-risk practices) (Ref. Week 2 Reading: Seven decisions that matter in a digital transformation)

### ▪ Business-IT Relationship

- What are business executives' perceptions of the value of IT?
- What IT decisions are business executives making?
- How do business functions and IT collaborate on roadmaps of technology solutions? (Ref. Week 3 Reading: The cornerstones of large-scale technology transformation)
- Contrast using SWOT analysis the assessment of the effectiveness of the IT function by the CIO vs. the business executive.

### ▪ Conclusions & Recommendation

- Rank the performance of IT management using the "IT abyss" model (McKinsey).
- Is there a strong business-IT alignment and does IT play a strategic role in the firm's performance?
- What is your assessment of the effectiveness of the management of IT?
- Provide recommendations for performance and governance improvements.
- What metrics will you use to measure if your recommendations are successful?

### ▪ Benchmarking & Lessons Learned

- Benchmark and discuss your findings with another group. Briefly compare your findings with those of the organization they analyzed? What are your conclusions in terms of management of IT?
- What are your lessons learned?

### 8.3 Take-Home Final Exam (*Individual*)

The final exam will be posted online, and will be comprehensive across all course topics including assigned course readings, lecture notes, cases, class discussion takeaways, and other supplementary material. The exam will consist of a combination of multiple-choice questions (MCQs) and short answer questions. Each candidate is individually responsible for completing his/her own exam and submitting it according to posted instructions.

- The exam will be posted online on the morning of December 10, and will be due by end of day (midnight) December 17.
- The MCQs portion of the exam will consist of 25 – 30 questions to be completed within a specified timed duration. This portion of the exam will be evaluated automatically and results will be available after all the MCQs have been completed and submitted.
- The Short-Answer portion of the exam will be completed in a word document which will need to be submitted online through Brightspace.
- Further instructions will be posted along with the exam at the end of the course.

## 9. Key Course Administration Matters:

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### 9.1 Special Needs & Accessible Learning

Candidates with disabilities or special needs are advised to contact the University's SASS (Student Academic Success Service) Access Service (e-mail: [adapt@uOttawa.ca](mailto:adapt@uOttawa.ca)) for information regarding its services and resources. Students are encouraged to review the calendar for information regarding all services available on campus.

### 9.2 Class Attendance & Decorum

The teaching method in the course includes class lectures, group discussions, guest lectures, and class presentations. Candidates are required to attend and participate in all classes. If you must miss a class, please inform the professor before the class. Also, if the absence means you will miss a case discussion class, an assignment deadline, or a class presentation, you should make alternative arrangements with your group and also inform the professor well in advance of the class to be missed.

***Your actions in the classroom environment should demonstrate intellectual engagement in the course content, and as well respect for your classmates and for your instructor.*** As such, talking audibly, reading the newspaper, using cell phones and laptops for chatting and messaging, and other similar disruptions to the learning environment will not be tolerated, and failure to comply with this policy can lead to disciplinary action, up to and including referral to university judiciaries.

### 9.3 Deadlines for Deliverables & Statute of Limitations

The dates on which assignments are due will be openly published and you are expected, under normal circumstances, to accept responsibility for organizing your affairs to meet the set deadlines. In general, since this is a six-week course, ***late assignments will NOT be accepted.*** Extensions for an assignment may be granted in extenuating circumstances, and if you really have a legitimate reason for being late, please contact the professor BEFORE the due date, so something can be worked out.

Assignment and presentation evaluations will be made available online and/or in-class to the appropriate groups. If you believe that errors were made in assessment or marking, please provide the professor with the original evaluation along with a short explanation of your objections. The deadline for this is one week after the date on which your evaluation was made available to you or your group.

### 9.4 Peer Evaluation for Team Assignments

Most team members cooperate well during the project work. In a situation where members of the team feel there is less than equal contribution by team members, peer evaluations will be used as a means of adjusting marks for individuals based on a consensus from their team members.

If requested by the team, we will ask each team member to evaluate the others on their contribution to group projects using the form found at the end of this document. Any group member receiving a score of less than "10" from 3 or more of his/her peers will have his/her mark reduced by the average score on their peer evaluation. For example, if a team receives a grade of 20/25 on a group project, but one team member receives ratings of 5, 7, 6 and 8/10 (6.5 average) for his/her contribution, the grade for that individual will be 13/25 (20\*0.65) on that particular assignment.

## 9.5 Academic Integrity

Academic Regulation 14 defines academic fraud as “any act by a student that may result in a distorted academic evaluation for that student or another student. Academic fraud includes but is not limited to activities such as<sup>1</sup>:

- a) *Plagiarism or cheating in any way;*
- b) *Submitting work not partially or fully the student’s own, excluding properly cited quotations and references. Such work includes assignments, essays, tests, exams, research reports and theses, regardless of whether the work is written, oral or another form;*
- c) *Presenting research data that are forged, falsified or fabricated;*
- d) *Attributing a statement of fact or reference to a fabricated source;*
- e) *Submitting the same work or a large part of the same piece of work in more than one course, or a thesis or any other piece of work submitted elsewhere without the prior approval of the appropriate professors or academic units;*
- f) *Falsifying or misrepresenting an academic evaluation, using a forged or altered supporting document or facilitating the use of such a document;*
- g) *Taking any action aimed at falsifying an academic evaluation.”*

The Telfer School of Management does not tolerate academic fraud. Please familiarize yourself with the guidance provided at: <http://web5.uottawa.ca/mcs-smc/academicintegrity/home.php>

Finally, the Telfer School of Management asks that students sign and submit with their deliverables the Personal Ethics Agreement form. Two versions of this form exist: one for individual assignments, and one for group submissions. **Assignments will not be accepted or marked if this form is not submitted and signed by all authors of the work.** We hope that by making this personal commitment, all students will understand the importance the School places on maintaining the highest standards of academic integrity.

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<sup>1</sup> <https://www.uottawa.ca/administration-and-governance/academic-regulation-14-other-important-information>



# Personal Ethics Statement Concerning Telfer School Assignments

## Group Assignment:

By signing this Statement, I am attesting to the fact that I have reviewed not only my own work, but the work of my colleagues, in its entirety.

I attest to the fact that my own work in this project meets all of the rules of quotation and referencing in use at the Telfer School of Management at the University of Ottawa, as well as adheres to the fraud policies as outlined in the Academic Regulations in the University's Undergraduate Studies Calendar. [Academic Fraud Webpage](#)

To the best of my knowledge, I also believe that each of my group colleagues has also met the rules of quotation and referencing aforementioned in this Statement.

I understand that if my group assignment is submitted without a signed copy of this Personal Ethics Statement from each group member, it will be interpreted by the Telfer School that the missing student(s) signature is confirmation of non-participation of the aforementioned student(s) in the required work.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Last Name (print), First Name (print)

\_\_\_\_\_  
Student Number

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Last Name (print), First Name (print)

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Student Number

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Signature

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Date

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Last Name (print), First Name (print)

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Signature

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Signature

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Date

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Last Name (print), First Name (print)

\_\_\_\_\_  
Student Number

# Personal Ethics Statement

## Individual Assignment:

By signing this Statement, I am attesting to the fact that I have reviewed the entirety of my attached work and that I have applied all the appropriate rules of quotation and referencing in use at the Telfer School of Management at the University of Ottawa, as well as adhered to the fraud policies outlined in the Academic Regulations in the University's Undergraduate Studies Calendar. [Academic Fraud Webpage](#)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Last Name (print), First Name (print)

\_\_\_\_\_  
Student Number

# Peer Evaluation Form

Work Team: \_\_\_\_\_

Date: \_\_\_\_\_

Name of Evaluator: \_\_\_\_\_

This form is for use in evaluating the members of your team related to their contributions on your team project. The way this evaluation will be put to use is described below. Note: the evaluator should not evaluate him/herself.

Each team member will evaluate the others' contribution to group projects. Individual marks will be adjusted according to the average group score for each team member. *For example, if a team receives a grade of 20/25 on a group project, but one team member receives ratings of 5, 7, 6 and 8/10 (6.5 average) for his/her contribution, the grade for that individual will be 13/25 ( $20 \times 0.65$ ) on that particular project.*

Team Member	Evaluation /10	Comments