The University Of Toledo

Graduate Program Requirement Revision

* denotes required fields Contact Person*: P. S. Sundararaghavan Phone: 530-2456 (xxx-xxxx) Email: p.sundararaghavan@utoledo College*: College Business and Innovation Dept/Academic Unit*: Info Operations and Tech Management ▼ Program Name*: MBA in Operations Management Present **Proposed** Minimum number of credit hours for completion(if changed): Minimum number of credit hours for completion(if changed): Please see the attached file. List all courses which comprise the certificate or degree List all courses which comprise the certificate or degree and identify term offered (summer/fall/spring): and identify term offered (summer/fall/spring): Identify delivery method (Online/in class/off campus): Identify delivery method (Online/in class/off campus): File Type View File Delete ProposedCourseList View Delete

(e.g. 201140 for 2011 Fall) Proposed effective term*: 201740

Please refer to http://www.utoledo.edu/catalog/ for university catalog.

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Comments/Notes:

The name of the program will be changed from Operations Management to Operations and Supply Chain Management. All courses which have OPMT as a prefix, will now be called as OSCM. A similar change was made in the undergraduate program in 2015, and this is for the MBA program to make it consistent.

Rationale:

Program Approval:		
Department Curriculum Authority:	Bassam Hasan	Date 2017/04/10
Department Chairperson:	P. S. Sundararaghavan	Date 2017/04/10
College Curriculum Authority or Chair	Michael Mallin	Date 2017/04/10
College Dean:	Anand S. Kunnathur	Date 2017/04/12
Graduate Council:	Constance Schall, GC mtg 5/2/17	Date 2017/05/03
Dean of Graduate Studies:	Amanda Bryant-Friedrich	Date 2017/05/05
Office of the Provost:		Date
	Submit	
1	Administrative Use Only	
Effective Date:	(YYYY/MM/	DD)
CIP Code:		
Subsidy Taxonomy: Program Code:		
Instructional Level:		

Banner	Term	Code:
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Summary of Motions to Modify MBA (Operations Management) Major

- Rename "Operations Management" MBA major to "Operations and Supply Chain Management".
 Rationale: A name change to the major is more reflective of the nature and content of the curriculum.
- 2. Rename the *OPMT* (Operations Management) prefix to *OSCM* (Operations and Supply Chain Management).

Rationale: From a branding perspective, it is recommended that all courses offered within the major should have the same prefix and not mix (e.g., OPMT and OSCM). The new OSCM major designation is more reflective of the revised and current curriculum.

3. Modifications to Course titles and descriptions (as noted in proposal).

Rationale: Changes to titles and course descriptions recommended to better fit the nature and content of the courses. See appendix B for a summary comparison of proposed versus current. Individual course syllabi are available and reflective of these changes.

4. Deactivate OPMT6100 and OPMT6150

Rationale: Insufficient demand and faculty resources to deliver courses on a regular basis. OPMT6150 has not been offered in a long time and a modified INFS course may serve the need of students interested in this on a case by case basis.

5. Require OSCM 5510 as pre-requisite or co-requisite to OSCM5520.

Rationale:

- a. OSCM5510 is not offered frequently enough
- b. Pre-requisite material to OSCM5520 is typically covered early in the course and it is only needed in the middle of OSCM 5520.
- 6. Cross-list INFS6780 with OSCM6780.

Rationale: Course content similarities and overlap. In due time, INFS 6780 will be removed to make it just an OSCM course.

- 7. Propose new course OSCM6980: Special topics in Operations and Supply Chain Management Rationale: A new course and number needs to be established to enable students to study special/contemporary topics in OSCM. A sample syllabus has been prepared and is illustrated in Appendix C.
- 8. Modify the requirements for the OSCM Major as specified (see Appendix A)

Rationale: Proposed modification incorporates much of the changes in items 1-7 (above). Previously approved new courses (OSCM 6250 and OSCM 6780) are relevant for the major. OSCM 6980 established a course to cover special topics. Other current electives (e.g., OPMT 6100 & 6510) are being hibernated due to insufficient student demand/faculty resources.

Appendix A

The following summarizes the proposed curricular program requirement revisions for the OSCM MBA major:

Proposed	Current
Operations and Supply Chain Management The operations and supply chain management major provides the student with the decision-making and problem-solving skills required for managing people and resources more effectively, whether in manufacturing firms, service industries, nonprofit organizations or government operations.	Operations Management The operations management major provides the student with the decision-making and problem-solving skills required for managing people and resources more effectively, whether in manufacturing firms, service industries, nonprofit organizations or government operations.
Required courses: OSCM 6680 Quality Management and Six Sigma (Sp.) OSCM 6690 Supply Chain Resource Management (Fall)	Required courses: OPMT 6680 Total Quality Management and SPC OPMT 6690 Manufacturing Resources Management
And one of the following: OSCM 6270 Simulation and Waiting Lines (Fall) OSCM 6980 Special Topics (Spring) OSCM 6250 Essentials of Business Analytics (Fall) OSCM 6780 ERP Systems Process Management (Fall)	And one of the following: OPMT 6100 Time Series Analysis & Forecasting OPMT 6270 Computer Simulation OPMT 6510 Project Management OPMT 6720 Manufacturing Systems Design OPMT 6930 Contemporary Topics Seminar MKTG 6080 International Supply Chain Management

Rationale:

Both courses (OSCM 6250 and OSCM 6780 previously approved as new courses) are relevant for the major. OSCM 6980 established a course for special topics. Other current electives (e.g., OPMT 6100 & 6510) are being deactivated due to insufficient student demand/faculty resources.

Appendix B

Comparison of course listing and descriptions (proposed versus currently existing in catalogue). Differences in proposed noted in red.

Proposed (catalogue listing)	Current (catalogue listing)
OSCM5510 Business Statistics With Computer Applications [3 credit hours] The application of statistics to business problem solving. Topics include descriptive statistics, probability theory, confidence intervals, hypothesis testing, sampling, ANOVA, chi-square tests, regression and correlation analysis, and concepts of business analytics.	OPMT5510 Business Statistics With Computer Applications [3 credit hours] The application of statistics to business problem solving. Topics include descriptive statistics, probability theory, confidence intervals, hypothesis testing, sampling, ANOVA, chi-square tests, regression and correlation analysis, and elementary concepts of data analytics.
OSCM5520 Analysis of Manufacturing & Service Systems [3 credit hours] Concepts, methods, tools and techniques for designing and managing manufacturing and service systems in the context of a supply chain are discussed. Topics include creating flexible and efficient systems for producing services and goods, total quality management, inventory management, and scheduling. Prerequisites or co-requisites: OSCM5510 is pre-requisite or a co-requisite.	OPMT5520 Analysis Of Manufacturing & Service Systems [3 credit hours] Concepts, methods and strategies for designing and managing manufacturing and service systems in the context of a supply chain are discussed. Topics include creating flexible and efficient systems for producing services and goods, total quality management, time-based competition, global production and sourcing.

Proposed (catalogue listing)	Current (catalogue listing)
OSCM6270 Simulation and Waiting Lines [3 credit hours] Students are introduced to modeling uncertainty in supply chain systems using simulation. Simulation will be introduced through spread sheet as well as simulation software (e.g., @Risk, Simul8, ARENA). Topics such as fitting distributions, validation, verification, confidence intervals, experimental design as well an introduction to waiting line models and comparison of simulation with analytical models will be covered. Prerequisites: OSCM5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	OPMT6270 Simulation [3 credit hours] Students are introduced to modeling uncertainty in supply chain systems using simulation. Simulation will be introduced through appropriate software (e.g., @Risk, Simul8, ARENA). Topics such as fitting distributions, validation, verification, confidence intervals, experimental design, comparison with analytic models will be covered. Prerequisites: OPMT 5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C
OSCM6510 Project Management [3 credit hours] This course deals with managing of projects in research and development, manufacturing, construction information systems, and service organizations. Students will discuss cases and use extensively a project management software. Prerequisites: OSCM5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	OPMT6510 Project Management [3 credit hours] This course deals with managing of projects in research and development, manufacturing, construction and service organizations. Students will discuss cases and use extensively a project management software. Prerequisites: OPMT 5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C
OSCM6680 Quality Management and Six Sigma [3 credit hours] The course introduces students to the TQM philosophy, concepts and statistical theory behind the tools will be discussed. It also addresses process improvement, lean, six sigma and related topics. Provides students with an overall approach for the design of a system to manage quality and reliability along the entire value chain. Pre-requisite: OSCM5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	OPMT6680 Total Quality Management And Spc [3 credit hours] The course introduces students to the TQM philosophy, concepts and statistical theory behind the tools will be discusssed. Provides students with an overall approach for the design of a system to manage quality and reliability along the entire value adding chain. Prerequisites: OPMT 5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C

Proposed (catalogue listing)	Current (catalogue listing)	
OSCM6690 Supply Chain Resource Management [3 credit hours] Study of Operations planning, scheduling, and inventory systems with tools such as MRP, JIT and bottleneck approaches in the context of manufacturing and service industries through business cases where appropriate. Prerequisites: OSCM 5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	OPMT6690 Manufacturing Resources Management [3 credit hours] Study methods such as MRP, JIT and bottleneck approaches used in managing manufacturing activities through business cases where appropriate. Production planning, scheduling, and inventory systems will be studied. Prerequisites: OPMT 5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	
OSCM6960 Master's Thesis [1-6 credit hours] Master's Thesis	OPMT6960 Master's Thesis [1-6 credit hours] Master's Thesis	
OSCM 6980 Operations and Supply Chain Management Special topics. [3 credit hours] Study of special topics including current topics of interest in the Operations and Supply chain management will be the focus.	N/A	
OSCM7520 Analysis Of Manufacturing & Service Systems [3 credit hours] Concepts, methods, tools and techniques for designing and managing manufacturing and service systems in the context of a supply chain are discussed. Topics include creating flexible and efficient systems for producing services and goods, total quality management, inventory management, and scheduling. Prerequisites or co-requisites: OSCM5510 is pre-requisite or a co-requisite.	OPMT7520 Analysis Of Manufacturing & Service Systems [3 credit hours] Concepts, methods and strategies for designing and managing manufacturing and service systems in the context of a supply chain are discussed. Topics include creating flexible and efficient systems for producing services and goods, total quality management, time-based competition, global production and sourcing. Prerequisites: OPMT 5510 FOR LEVEL GR WITH MIN. GRADE OF D-	

Proposed (catalogue listing)	Current (catalogue listing)	
OSCM8270 Simulation and Waiting Lines [3 credit hours] Students are introduced to modeling uncertainty in supply chain systems using simulation. Simulation will be introduced through spread sheet as well as simulation software (e.g., @Risk, Simul8, ARENA). Topics such as fitting distributions, validation, verification, confidence intervals, experimental design as well an introduction to waiting line models and comparison of simulation with analytical models will be covered. Prerequisites: OSCM5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	OPMT8270 Simulation [3 credit hours] Students are introduced to modeling uncertainty in supply chain systems using simulation. Simulation will be introduced through appropriate software (e.g., @Risk, Simul8, ARENA). Topics such as fitting distributions, validation, verification, confidence intervals, experimental design, comparison with analytic models will be covered. Doctoral students will be assigned a significant project. Prerequisites: OPMT 5520 FOR LEVEL GR WITH MIN. GRADE OF D	
OSCM8680 Quality Management and Six Sigma [3 credit hours] The course introduces students to the TQM philosophy, concepts and statistical theory behind the tools will be discussed. It also addresses process improvement, lean, six sigma and related topics. Provides students with an overall approach for the design of a system to manage quality and reliability along the entire value chain. Pre-requisites: OSCM5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	OPMT8680 Total Quality Management And Spc [3 credit hours] The course introduces students to the TQM philosophy, concepts and statistical theory behind the tools will be discusssed. Provides students with an overall approach for the design of a system to manage quality and reliability along the entire value adding chain. Doctoral students will be assigned a significant project. Prerequisites: OPMT 5520 FOR LEVEL GR WITH MIN. GRADE OF D- O	
OSCM 8690 Supply Chain Resource Management [3 credit hours] Study of Operations planning, scheduling, and inventory systems with tools such as MRP, JIT and bottleneck approaches in the context of manufacturing and service industries through business cases where appropriate. Prerequisites: OSCM 5520 FOR LEVEL GR WITH MIN. GRADE OF C OR BUAD 3020 FOR LEVEL UG WITH MIN. GRADE OF C	OPMT8690 Manufacturing Resources Management [3 credit hours] Study methods such as MRP, JIT and bottleneck approaches used in managing manufacturing activities through business cases where appropriate. Production planning, scheduling, and inventory systems will be studied. Doctoral students will be assigned a significant project. Prerequisites: OPMT 5520 FOR LEVEL GR WITH MIN. GRADE OF D- O	

Proposed (catalogue listing)	Current (catalogue listing)
N/A	OSCM 6250 Essentials of Business Analytics [3 credit hours] This course provides a broad understanding of tools, techniques and business issues in using business analytics. It introduces the students to data visualization, descriptive and predictive data analytics tools and techniques. It also provides problem formulation and solving skills in prescriptive and evaluative analytical tools (Mathematical Programming, Monte Carlo Analysis). Skills in analysis and communication of the results will be developed through use of cases and software.
N/A	OSCM 6780 ERP Systems Process Management This course will provide students an overview of the fundamental business processes and examination of the application of business enterprise software using SAP. Issues include software deployment that supports transaction processing in the business supply chain. Also, students will work on various hands-on exercises including process of entire business cycle with a fictitious company and implementation of simple application with NetWeaver development platform.



Appendix C:

OSCM6980: Special topics in Operations and Supply Chain Management (Sample Topic: Cases in Operations and Supply Chain Management)

IOTM Department

College of Business and Innovation
The University of Toledo

Instructor: Xinghao (Shaun) Yan Term:

Email:Xinghao.Yan@utoledo.eduClass Location:Office Hours:Class Day/Time:Office Location:ST4043Credit Hours:

Office Phone: 419-5304365

COURSE/CATALOG DESCRIPTION

The goal of this course is to interpret the relationship between a firm's product-market strategy and the role of the operations and supply chain management. Students learn how to manage operations and supply chains in business and government through case-based.

COURSE OVERVIEW

This course examines the management and flow of goods, information and funds within and between companies, from source to consumer. The goal of the course is to provide a comprehensive study of critical issues in operations and supply chain management. These issues include simultaneous decision making in operations and supply chain management, operations and supply chain performance metrics, distribution network design, demand management, risk analysis in OSCM, inventory management, and revenue management.

This is a case-based course. After the introduction of the theories and techniques in operations and supply chain trough lectures, cases are used to demonstrate the application of these theories and techniques to solve the real-world problems. Students are put in the role of decision makers and are trained to approach business problems in a logical, quantitative/qualitative, and systematic way.



STUDENT LEARNING OUTCOMES

In this course, students learn how to analyze the impacts of operations and supply chain decisions on the firms as well as the entire supply chains. The course explores the key elements that comprise supply chain management. By taking the course, the students will be able to

- 1. Analyze the manufacturing operations in a firm.
- 2. Develop a framework to design and analyze supply chains that meet or exceed customer quality, deliver, cost and service requirements.
- 3. Analyze case problems in real world, and apply the theories in operations and supply chain management to resolve the case problems.
- 4. Develop communication skills through class discussion, teamwork-based projects, and presentations.

PREREQUISITES AND COREQUISITES

BUAD3020/OPMT5520

REQUIRED TEXTS AND ANCILLARY MATERIALS

Textbook:

Supply Chain Management: Strategy, Planning, and Operation (6th edition, 2016), Sunil Chopra and Peter Meindl, Pearson.

Students are also encouraged to refer to other materials which include the content similar to the course topics introduced in the course.

SOFTWARE

You are required to have recent working versions of Microsoft Excel and PowerPoint for this class. In addition to basic Excel, some Excel Add-Ins will be used in this course. We will make use of the Solver and Data Analysis add-ins, which is available on your Excel or Windows installation CD. These add-ins are available on your original installation CDs. It is your responsibility to ensure that these products have been installed properly.

UNIVERSITY POLICIES

Policy Statement on Non-Discrimination on the basis of Disability (ADA)

The University is an equal opportunity educational institution. Please read <u>The University's Policy</u> <u>Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance.</u>

ACADEMIC ACCOMODATIONS

The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information



regarding academic accommodations/adjustments in this course please contact the <u>Student</u> <u>Disability Services Office</u>.

ACADEMIC POLICIES

(Insert specific academic policies the student is expected to comply with; policies <u>may</u> include student conduct, academic dishonesty, missed class policy, student grievances, etc.)

COURSE EXPECTATIONS

You are expected to be fully engaged in the entire learning process. This means devoting time and energy to preparation before class, including learning team meetings, listening to others during class discussions and engaging in class discussions. Note that preparation before class does not mean that you "perfectly solve the case" or "provide all answers" to the case, but does mean that you have thoroughly read the case and other assigned materials, have thoughtfully considered and discussed the issues raised in the case with your team members, and have does the quantitative analysis when needed. In addition, through the analysis you are prepared to propose an action plan.

Using your computer during class for personal activities such as reading/writing email, writing letters, surfing the Web, playing games, etc. is also distracting and violates our norms.

GRADING

Grading Scale

Number of Points	Letter Grade	Scales (%)
900-1000	A (A- to A)	93-100 = A; 90-92 = A-
800-899	B (- to +)	87-89 = B+; 83-86 = B; 80-82 = B-
700-799	C (- to +)	77-79 = C+; 73-76 = C; 70-72 = B-
600-699	D (- to +)	67-69 = D+; 63-66 = D; 60-62 = D-
< 600	F	<=59

Grading Criteria

Grading areas	Points	Focus
Quizzes	15%	Individual
Mid-term	25%	Individual
Class contribution	15%	Individual
Group project	20%	Group
Final exam	25%	Individual
Total	100%	



Quizzes:

There will be 6 in-class quizzes in the 6 classes in which lectures on different course topics are given. Each quiz takes 10-15 minutes at the end of the class.

Mid-term/Final exam:

Either exam will be an open book short-answer style exam. Note that computers, cell phones, or any form of electronic device will NOT be permitted during the examination.

Class Contribution:

We will have peer evaluators in class who track quantity of contribution. Details of the peer evaluation process for class contribution will be provided in the first class. The instructor will evaluate your contribution mark for each class by using the peer evaluations as backup information. The evaluations are based on the quantity and quality of your contributions in class. Your final contribution grade will be calculated according to your contribution marks during the whole semester.

More details on the policy of class contribution grading will be given in the first class on Aug. 24th.

Students will prepare for the class discussions through group study. Please form teams of 4 members after the first class. You are required to turn in (1) the name of group members and (2) contact person to represent the group by the second class of the semester, i.e., Aug. 31st. If you do not turn in a group preference I will randomly assign you to a group.

Group Project:

Students are required to write a project report on a current supply chain topic. Your report should address a specific question related to supply chain management. The project provides students with the opportunity to face a real operations/supply chain problem in the reality and apply the theories/techniques in supply chain management to find out a solution to the problem. Groups are encouraged to use contacts from internships, prior/future jobs, or other networks/resources to find meaningful projects that need analysis of real data from firms facing supply chain challenges. However, the project report must be original and written by the group. If you need to refer to a source for background information, the source must be referenced appropriately. Full citation information should be given in the bibliography.

Any project topic is acceptable if only it is related to a real problem/issue in supply chain management and can be analyzed by using the theories/techniques introduced in the course. A list of recommended topics are provided below (a topic not included in the list should be approved by the instructor).

- Purchasing/Pricing Management
- Inventory Management



- Logistics and Distribution Management
- Supply Chain Structure Design
- Supply Chain Uncertainty/Risk Analysis
- Demand Management and Demand Forecasting
- Ordering Strategy in Supply Chain Management
- Revenue Management in Supply Chains
- Supply Chain Management in other fields, like Healthcare Supply Chains

The due dates of the group project are as follows,

- Nov 16th: Project progress presentation-each group will give a 5-minute presentation to the class regarding their project topic. Your project should address a specific issue. Your presentation should outline your plan and deliverables you aim to achieve.
- Nov 30th: Final project presentation.
- Dec 6th: Final written report.

More details on structures of the report and presentation will be given throughout the course.

ACCESSIBULITY

The University of Toledo abides by the Americans with Disabilities Act (equal and timely access) and Section 504 of the Rehabilitation Act of 1973 (non-discrimination on the basis of disability). If you have a disability and are in need of academic accommodations but have not yet registered with the Office of Accessibility (OA) (Rocket Hall 1820; 419.530.4981; officeofaccessibility@utoledo.edu), please contact the office as soon as possible for more information and/or to initiate the process for accessing academic accommodations. If you are registered with the Office of Accessibility please see me as soon as possible (after class or during my office hours) to discuss your accommodations and how I may be of assistance to you throughout the course. All discussions will remain confidential and are intended to assist me with ensuring that I can provide you with help related to any accommodations you are receiving through the Office of Accessibility.

The syllabus may be modified to improve effectiveness and meet the needs of the course.



COURSE SCHEDULE

OSCM 6980: Special Topics in Operations and Supply Chain Management

(Topic: Cases in Supply Chain Management)

By Xinghao (Shaun) Yan

Week	Date (Wed)	Topic	Activity
1	Aug 24	Understanding OM/SCM plus spreadsheet modeling	Lecture, small case
		and sensitivity analysis	discussion, quiz
1	Aug 24	Case: Firm A's best price decision (from Shaun Yan)	Case discussion
			Lecture, solving optimal
2	Aug 31	Introduction to Optimization	decisions for small case
			problems, discussion
			Lecture, small case
2	Aug 31	Presentation practice (Case: Chace Shipping)	discussion, quiz
3	Sept 7	Supply chain performance evaluation, drivers and metrics	Case discussion
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3	Sept 7	Case: Northwest Newsprint, INC (a)	Case discussion
			Lecture, small case
4	Sept 14	Distribution network	discussion, quiz
4	Sept 14	Bloomex.ca Logistics Optimization	Case discussion
<u> </u>			Lecture, small case
5	Sept 21	Introduction to randomness and regression	discussion
	'		Lecture, small case
5	Sept 21	Demand management	discussion, quiz
6	Sept 28	Case: Elite Rent-A-Car	Case discussion
	·		
6	Sept 28	Clonlara Hotel (1)	Case discussion
7	Oct 5	Review+ sample questions+Q&A	
8	Oct 12	Mid-term exam	
			Lecture, small case
9	Oct 19	Lecture: simulation	discussion
9	Oct 19	Case: Clonlara Hotel (2)	Case discussion



			Lecture, small case
10	Oct 26	Inventory Management/Newsvendor Model	discussion, quiz
10	Oct 26	Case: Red Brand Canners and Its Supply Chain	Case discussion
11	Nov 2	Case: Beijing Opera Mask Sales in Four Cities in the United States	Case discussion
11	Nov 2	Revenue Management	Lecture, small case discussion, quiz
12	Nov 9	Case: Four Star Motorsports	Case discussion
12	Nov 9	Case: Personal Training at the New York Health Club	Case discussion
13	Nov 16	Review and group progress presentation	
15	Nov 30	Group presentation	