

OPERATIONS MANAGEMENT

STUDY GUIDE FOR

MBAA 812 PEC

MBAA 812PEC

FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

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SPECIFIC INFORMATION: OPERATIONS MANAGEMENT (MBAA 812)

1. INTRODUCTION: WHAT IS THE MODULE ABOUT?

The study area of “Operations Management” is concerned with the effective management of the transformation of inputs (resources) into outputs in the organisation and is therefore at the centre of managing an organisation. The subject content therefore includes elements of production management, supply chain management and also the management of services. Familiarity with the subject will enable the student to make informed decisions regarding the most effective design, operation and optimising of the manufacturing or service process in business, government, and other organisations. This module will also provide you with plenty practical application of the knowledge in real-life organisations.

2. MODULE OUTCOMES

The focus of the module is on being able to apply their knowledge by making decisions and by operating on a management level, and not on simple accumulation of book knowledge.

Upon completion of this exciting module you should be able to

- Demonstrate a command of the specialist knowledge base of the operational environment and evaluate and critique current approaches as applied in operations management.
- Be able to use innovative and creative skills; integrate the current practical, literature and theoretical bases of the current operations management (operations planning, project and supply chain management) environment.
- To apply conceptual ability in addressing complex issues of operations management (operations planning, project management and supply chain management) such as evaluation, design and development of improved systems.
- To facilitate and sustain outcomes of complex managerial issues and ethical oversight in the compilation and discourse of operations managerial information.
- To compose and apply interventions based on the operations management needs and address the consequences of such interventions.

Specific Outcomes (Content)

- Display a working knowledge of the theories and principles of operations management.
- Understand the manufacturing, government, and service sector as applicable to the operational environment.
- Critically evaluate the management of operations in a specific environment
- Critically evaluate the supply chain management processes in an organisation.
- Apply production or service planning techniques
- Apply Project Management techniques
- Apply forecasting and capacity planning and management
- Compile an operations strategy for an organisation
- Evaluate and discuss service and product design
- Debate quality and lean operations management processes
- Evaluate the integrative technologies in operations
- Demonstrate time management in operations management
- Identify and explain the quality management needs and requirements in an organisation

- Describe the process of product planning in operations management.
- Debate the work improvement, standards and productivity protocols in the operations management environment.
- Demonstrate the practical application of facilities deployment, layout, handling and transportation.
- Debate the maintenance management within an operations management environment
- Demonstrate resource alignment within the operations management environment.

3. ASSESSMENT CRITERIA

The module outcomes will be mastered if you are able to:

- Competently make management decisions based on information from your own work environment or from another real-life organisation to prove that you understand and are able to apply management theories and techniques regarding the above themes;
- Have completed a community project as a syndicate group, providing evidence of operations management principles used in a non-profit organisation during the project;
- Analyse real-life companies and other organisations and demonstrate that you can identify opportunities for improvement in these organisations;
- Integrate knowledge from literature with issues from real-life organisations and extract solutions for real-life management issues from literature;
- Apply you knowledge to both product- and service oriented organisations, including community organisations.

4. ASSESSMENT METHODS

Assessment will be in both formative and summative format. Formative assessments will be in the form of individual and group assignments. These assignments include fortnightly (i.e. before each contact session) application of the knowledge in real-life organisations. Summative assessment will be in the form of a portfolio of evidence. Deadlines for the Mafikeng group will be the same as for the Potchefstroom and Vaal Triangle groups, although all the physical contact sessions for the Mafikeng group will be in a single block release close to the end of the semester.

5. ASSESSMENT PLAN

Formative (Participation mark):

Assessment method	Number	Maximum marks	Weight
Individual submissions	Continuous	100 (One-pagers 20%, Three-pagers: 80%)	50
Group community project	Continuous	100 (Weekly submissions 30%, Final	50

		presentation 30%, Final portfolio 30%, General impression 10%)	
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- Before EVERY contact session EVERY student has to submit a one-page summary of the theory covered during that contact (referred to as a “one-pager”). These will count out of 10 and form part of the individual assignment.
- Individual assignment: Each student will be required to submit complete reports during two contact sessions (referred to as a “three-pager”). Students are free to choose for which contact sessions they want to submit a three-pager. The detail of a three-pager is given later in this study guide under “Individual assignment”. If any student wants to submit three-pagers for more than two contact sessions, they are free to do so.
- The total mark for the individual continuous reports will count as the individual assignment. This include submissions for all seven contact sessions (both one-pagers and three-pagers).
- Group assignment: Each syndicate group will submit group reports on the community project during two contact sessions, distributed such that the hand-in dates are evenly distributed. This will be supplemented by a final group portfolio plus a class presentation. The sum of these will count as your group assignment. Should any group want to submit more than twice, they are welcome to do so. Although groups are only required to submit two topics during the semester, the final group portfolio and class presentation should include all the topics.
- Portfolio of evidence: An individual portfolio of evidence will replace the final examination. (Note: although students do not have to submit a three-pager on each topic, the final portfolio must address all the topics).

Summative (Examination mark):

Assessment method	Number	Maximum marks	Weight
Individual portfolio of evidence		100	100

Module mark: Formative: Summative = 50:50 (i.e. your portfolio counts the same as your participation mark).

6. PRESCRIBED BOOK

Heizer, J., Render, B. & Munson C. 2016. **Operations Management: Sustainability and Supply Chain Management**. 12th edition. Boston: Pearson. *(If you have no experience of operations management, it is strongly advised that you buy the textbook. If you have a previous edition of the same text book, you don't need to buy the 12th edition. If you have another Operations Management text book that caters for MBA level and that covers all the topics set out below, you are welcome to use it instead of the prescribed book).*

7. ADDITIONAL LITERATURE FOR YOUR DEVELOPMENT

Below is a list of very valuable books that appeals to the kind of organisation where you work. For your own benefit, try and get hold of the applicable ones and read them. I realise that some of them are old, but the skills that they will teach you are invaluable.

- ASHKENAS, R. 2009. **Simply effective: How to cut through complexity in your organization and get things done**. Boston: Harvard Business Press
- *If you are in production or supply chain management:* GOLDRATT, E. M. 1982. **The goal**. New York: North River Press.
- *If you are in sales:* RACKHAM, N. 1996. **The SPIN selling fieldbook**. New York: McGraw-Hill
- *If you are in a service organisation:* FITZSIMMONS, J.A., FITZSIMMONS, M.J. & BORDOLOI, S. 2014. **Service management: Operations, strategy, information technology**. 8th edition. Boston: McGraw-Hill.

8. THEMES COVERED IN THIS MODULE

- Operations and productivity
- The global environment and operations strategy
- Managing projects
- Forecasting demand
- Product design
- Quality management
- Process design
- Location decisions
- Layout decisions
- Job design and work measurement
- Supply chain management
- Managing inventory
- Scheduling
- MRP and ERP systems
- Lean operations
- Maintenance and reliability decisions

9. WORK PROGRAMME (1st semester 2018)

Issues concerning Mafikeng students are printed in italics.

“Contact sessions” refer to the dates that the Potchefstroom and Vaal Triangle groups have class. *However, the Mafikeng group has to submit their assignments on the same dates, although the contact sessions for the Mafikeng group is a single block release close to the end of the semester. During this block release the class will also be divided into eight*

“contact sessions”, where exactly the same procedure will be followed that is followed for Potchefstroom and Vaal Triangle. For the semester schedule, when referring to “contact sessions”, for Mafikeng students it implies submission dates.

NOTE: To ensure an equitable work load distribution between subjects, each student only has to hand in COMPLETE individual assignments (three-pagers) during at least TWO contact sessions. You can choose for which contact sessions you want to submit the two three-pagers. If you want to submit more than two three-pagers, they will be marked. HOWEVER, before EACH contact session EVERY student needs to submit a one-page summary of the theory covered during that contact session, as you understand it. You are permitted one page per chapter in your textbook (although I still refer to the whole assignment as a one-pager).

Syndicate groups are formed during the summer study school in January/February. Half of your participation mark will come from your group project.

For each contact session two syndicate groups from each delivery point will be selected to submit their group assignments for that contact session.

The module stands on two legs: (a) Application of the theory in your own organisation and (b) application of the theory in a community project. Also, the PowerPoint slides, with narrative comments, for all lessons will be available on eFundi at the beginning of the semester and have to be worked through **before the start of each lesson**. A second PowerPoint slide show will cover the frequently asked questions for that lesson, also with narrative comments.

- (a) Every topic that we cover will involve that you will have to be well-prepared. Before each contact session, you will prepare a one-page summary of the theory after going through the slide shows of the topics covered during that contact session. You have to submit this document on eFundi **BEFORE 23:55 on the Wednesday night before the class**. These one-pagers will be marked to count 20% of your individual assignment. A template is available on eFundi. The submission dates is clearly set out in paragraph 10 of this study guide and on eFundi.
- (b) On the two dates that you prefer to submit a three-pager, you have to submit a four-page document (three-pager, plus a cover page describing the organisation) on the application of the theory in your own organisation and submit this document on eFundi **BEFORE 23:55 on the Wednesday night before the class**. From these submissions I shall select a number to act as case studies during class discussion. These four-page documents will be marked to count 80% of your individual assignment. A template is available on eFundi. Note that the “theory page” could cover up to maximum one page per textbook chapter, and could therefore consist of more than one page. Hence a “three-pager” could consist of more than three pages.
- (c) Each study group will select a community organisation, provided that it conforms to certain characteristics, which will be shared with you at the study school (see also the community project checklists on eFundi). For each section of the syllabus that is covered, those study groups that are selected for a specific contact session will be required to prepare a brief PowerPoint slide show for your chosen community organisation to make a presentation based on the topic covered during that session. This slide show is for the benefit of the organisation. You must also be prepared to present your proposal to the class (PowerPoint slides) during the contact session. There is a template on eFundi for this slide show. These will be marked and added up to count as one third of your group assignment.

Chapter numbers refer to the text book by Heizer, Render & Munson (HR&M): Operations Management: Sustainability and Supply Chain Management, 12th ed. Case studies not taken from the textbook appear on eFundi under “Resources”.

For each contact session the following sequence will be followed:

a) Before Wednesday night 23:55

- You go through the slides, relevant chapters in the textbook and accompanying notes (these notes will be given where applicable) to cover all the theory. The only theory that will be covered during the class is to discuss concepts that you indicate as problem areas.
- You prepare a one-pager in pdf format on the theory covered (remember, one page maximum per chapter, but keep it short).
- If you choose to submit a long assignment for that contact session, you prepare a three-pager in pdf format on the theory covered and the application of the theory in your company (using the template supplied on eFundi).
- You submit your document on eFundi before Wednesday night 23:55. **No late submissions or submissions by e-mail are accepted (or tolerated).**
- If your group is drawn, you also prepare a four-slide PowerPoint show to be presented in class on the work done for your community project. You also submit this on eFundi before 23:55 on the Wednesday before the class.
- There are also some frequently asked questions on eFundi, together with their answers.

b) During class:

- 5 minutes: Introduction and administration of the lesson.
- 30 minutes: Brief summary of the theory. My presumption is that you have worked through the slides and preparation material, and therefore I cover the issues that you indicate as not understood yet.
- 30 minutes: Group discussion of the submissions of different students regarding application of the theory in their organisation.
- 30 minutes: Chosen groups will present your work done for your community organisation (CO) to the class (15 min PowerPoint show plus 10 min question time). All analyses and suggestions for the CO must be based on a sound theoretical basis.
- 10 minutes: Admin: Briefing on work to be done before next contact session.

10 OUTCOMES PER THEME

For the Potchefstroom and Vaal groups, the dates for 2018 are as given in the table below. *For the Mafikeng group the module is presented in block release format. The different assignments have to be submitted on the same dates as for the Potchefstroom and Vaal Triangle groups. The Mafikeng contact sessions for this subject are 17-19 February 2018 and 25-27 May 2018.*

SESSION 2018	THEME	OUTCOMES: Students should be able to:	PREPARATION
Study School 29 Jan – 2 Feb	A Introduction to operations management. B Global environment and strategy • Selection of individual (“Your organisation”) and community organisation (“CO”) and preparation for individual and group community projects. • Drafting of who has to submit group assignments during which contact session	OUTCOMES OF THEME A • Have a comprehensive knowledge of what operations management is. • Critically analyse the job of an operations manager in a real-life situation or case study. • Distinguish between goods and services by classifying different products as goods or services. • Effectively communicate and demonstrate that you have an understanding of the topic through feedback on Case study 1 (in the study guide). OUTCOMES OF THEME B • Coherently demonstrate their understanding of where operations strategy fits in with the strategy of the organisation in a global manufacturing or service organisation. • Critically analyse their own and other organisations to identify the “business driver” of that organisation or industry. • Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation.	• HR&M: Chapter 1 • HR&M: Chapter 2 • Select community project based on criteria listed on eFundi. • Prepare the case study “Birmingham International Airport” for a class discussion.

1 (P) 10 Feb (V) 12 Feb (M) 17 Feb	C Project management D Forecasting	OUTCOMES OF THEME C • Apply and integrate different project management techniques in real projects • Evaluate real project performance scientifically • Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation. OUTCOMES OF THEME D • Understand different forecasting approaches. • Demonstrate their understanding by applying different forecasting methods in real-life organisations	• Read HR&M chapters 3 & 4 • Go through PowerPoint theory lesson on eFundi. • Individual submission (all): Use the individual assignment template and submit a report on the strategic priorities of your organisation before 23:55 on Wednesday, 7 Feb. • Individual submission (if you want to submit a three-pager): Use the individual assignment template and submit a report on how project management and/or forecasting is carried out in your organisation. Submit your contribution by Wednesday night, 7 Feb before 23:55. NB: You have to submit either a three-pager or a one-pager for each contact session. However, submitting a three-pager will help you in your final portfolio! • All groups: Make contact with CO. Prepare a 3-page slide show about who the CO is and what services they offer. Ascertain whether CO has strategy. Do SWOT analysis on/with CO. Hand in as PowerPoint slide show (on eFundi template) by Wednesday, 7 Feb, before 23:55. • All groups must bring their community project partners along to the class on 10 Feb (Potchefstroom), 12 Feb (Vaal) and 17 Feb (Mafikeng) for a planning session with the organisation.
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2 (P) 24 Feb (V) 26 Feb (M) 11 May	E Product and service design F Quality management	OUTCOMES OF THEME E - Analyse the product design process for a specific product or service - Distinguish between the design process for products and services - Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation OUTCOMES OF THEME F - Critically distinguish between final product quality and total quality. - Effectively demonstrate their understanding of the principles of total quality in a case study - Comprehensively analyse variation in production or service processes through statistical techniques such as Six Sigma - Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation.	- Read HR&M chapters 5 & 6 and go through the lesson slide show on eFundi. - Individual submission: All: Use the individual assignment template and submit a one-page summary of how you understand the theory covered for this contact. Submit your contribution by Wednesday, 21 Feb, before 23:55. - Individual submission: Volunteering students: Use the individual assignment template and submit a report on how product or service design OR quality is managed in your organisation. You could choose only one of these topics for preparation, or both, but the length limitation is still one page for analysis and one page for recommendations in total!. Submit your contribution by Wednesday, 21 Feb, before 23:55. - Selected groups. Critically analyse the quality orientation, systems and initiatives of your CO and suggests ways to improve quality of service. Specifically focus on the quality of the primary community goals of the CO. Should you want to include any suggestions on the quality of the business leg, feel free to add that. Submit as PowerPoint slide show (on eFundi template) by Wednesday, 21 Feb, before 23:55.
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3 (P) 10 Mar (V) 12 Mar (M) 11 May	G Process design H Layout I Job design	OUTCOMES OF THEME G • Interpret the product-process matrix using real-life companies • Master the theory of the service-process matrix and interpret the matrix using real-life organisations. • Use process analysis techniques to critically analyse existing real-life manufacturing and service processes • Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation. OUTCOMES OF THEME H • Understand the basic layout configurations • Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation. OUTCOMES OF THEME I • Demonstrate a thorough understanding of job design concepts by applying the theory in real-life organisations. Make informed decisions regarding ethics in a job environment.	• Read HR&M chapters 7, 9 & 10 and go through the lesson slide show on eFundi. • Individual submission: All: Use the individual assignment template and submit a one-page summary of how you understand the theory covered for this contact. Submit your contribution by Wednesday night, 7 March, before 23:55. • Individual submission: Volunteering students: Use the individual assignment template and submit a report on the processes, layout and/or job design processes in your organisation. Critically analyse whether the processes are optimal (whether it is a product or service business). Submit your contribution by Wednesday night, 7 March, before 23:55. • Selected groups: Analyse the production and/or service process, layout or people management processes of your CO and suggest improvements. Hand in slide show (on the eFundi template) in by Wednesday, 7 March, before 23:55.
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4 (P) 24 Mar (V) 26 Mar (M) 12 May	J Location K Supply chain management L Inventory management	OUTCOMES OF THEME J - Identify the factors that affect location decisions for both product and service businesses. - Demonstrate a thorough understanding of the theory by applying the concepts in a real-life organisation. OUTCOMES OF THEME K - Demonstrate a thorough understanding of supply chains by plotting the supply chain of a real-life organisation - Investigate and critically analyse the strategic benefits of strategic supply chain design. - Effectively distinguish between the different methods of determining the optimal facility positions. - Critically discuss the concept of mass customisation - Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation. OUTCOMES OF THEME L - Understand service levels and be able to the theory to real-life organisations - Demonstrate a thorough understanding of inventory management concepts by applying the theory to a real-life organisation	- Read HR&M chapters 11 & 12 and go through the lesson slide show on e-Fundi. - Individual submission: All: Use the individual assignment template and submit a one-page summary of how you understand the theory covered for this contact. Submit your contribution by Wednesday night, 21 March, before 23:55. - Individual submission: Volunteering students: Use the individual assignment template and submit a report on how location decisions, supply chain-, and/or inventory management is carried out in your organisation. Submit your contribution by Wednesday night, 21 March before 23:55. a) Selected groups: Analyse the procurement and/or distribution processes and/or location opportunities of your CO and suggest improvements. Submit your slide show before Wednesday night, 21 March, 23:55.
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5 (P) 7 Apr (V) 9 Apr (M) 12 May	M Scheduling and planning N MRP & ERP systems	OUTCOMES OF THEME M • Practically apply scheduling concepts in optimising production • Systematically integrate knowledge of budgeting and demand planning to optimise operations • Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation. OUTCOMES OF THEME N • Coherently present their understanding of inventory management principles demonstrating that they can set up a manual ERP system • Integrate knowledge of inventory, demand and MRP systems into an ERP system design • Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation	• Read HR&M chapters 13, 14 & 15 and go through the lesson slide show on e-Fundi. • Individual submission: All: Use the individual assignment template and submit a one-page summary of how you understand the theory covered for this contact. Submit your contribution by Wednesday night, 4 April, before 23:55. • Individual submission: Volunteering students: Use the individual assignment template and submit a report on how planning and scheduling and/or MRP and ERP systems management is carried out in your organisation. Submit your contribution by Wednesday night, 4 April, before 23:55. • Selected groups: Analyse the planning, scheduling and/or information systems of your CO and suggest improvements. Submit your slide show before Wednesday night, 4 April, 23:55.
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6 (P) 21 Apr (V) 23 Apr (M) 12 May	O JIT and Lean operations P Maintenance and reliability	OUTCOMES OF THEME O - Describe the principles of lean operations and critically analyse any manufacturing or service process for benefits that could accrue through lean principles - Demonstrate their systematic understanding of the principles of lean operations in a case study - Demonstrate a thorough understanding of the concepts by applying the theory to a real-life organisation. OUTCOMES OF THEME P - Demonstrate a thorough understanding of maintenance concepts by applying the theory to a real-life organisation.	- Read HR&M chapters 16&17 and go through the lesson slide show on e-Fundi. - Individual submission: All: Use the individual assignment template and submit a one-page summary of how you understand the theory covered for this contact. Submit your contribution by Wednesday night, 18 April, before 23:55. - Individual submission: Selected students: Use the individual assignment template and submit a report on the different wastes in your organisation and suggest suitable lean operations tools to address the wastes. Submit your contribution by Wednesday night, 18 April, before 23:55. - Selected groups: Propose lean principles to your CO to optimise both their primary community and their production operations. Submit your slide show before Wednesday, 18 April 23:55.
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7	(P) 5 May (V) 7 May (M) 13 May	Community project feedback and wrap-up		• Prepare a 5-minute presentation on your total community project. Rated by other students. (The time limit of 5 minutes is strictly enforced). The slide show must be on eFundi before Wednesday, 2 May, 23:55 (Potch and Vaal) and before Wednesday, 9 May, 23:55 (Mafikeng). • Bring your community partner along to the class for today. They must be part of the final evaluation panel. • Submit combined community project report, testimonials and photo journal. (e-Fundi and hard copy!)
8	(P) 19 May (V) 21 May (M) 13 May	• Revision of concepts • Submit Individual portfolio of evidence (e-Fundi and hard copy!)		• Submit your individual portfolio of evidence. Hard copies to be submitted in class (Potch and Vaal) and electronic copies on eFundi. Mafikeng hard copies have to be submitted to Lungile at the Mafikeng campus on or before 4 June. Closing time for electronic submissions on eFundi is 16:00 on Monday, 21 May 2018 for Potchefstroom and Vaal students and 16:00 on Monday, 4 June 2018 for Mafikeng students.
12 July 9:00		Operations management supplementary examination date		12 July 2018. Should you fail the portfolio of evidence, you have up to today to re-submit the portfolio, and you can earn a maximum of 50% for resubmitted PoE.

Case study: Birmingham International Airport (for Theme A, Contact 0 class discussion)

In the space of just 30 minutes every weekday, around 5.00 in the evening, around 20 flights arrive at and depart from the Eurohub Terminal. At the same time, aircraft are arriving and leaving the Main Terminal next to the Eurohub. Across the runway and acres of tarmac, at the site of the original airport, the overnight freight operation is just beginning to wake up with the arrival of staff and the preparations for the first aircraft from Europe or the United States.

Some of the 7000 staff from the 150 organisations based at Birmingham International Airport (BIA) see to the needs of their customers. The baggage handling operation is sorting, checking and dispatching bags to the many departing aircraft. The ground crews are loading and unloading aircraft, putting meals on board, filling the fuel tanks and cleaning the aircraft during their brief spell at the airbridge. The airlines' ticketing staff are dealing with lines of passengers, each of whom may have a different final destination. The information desk is fully staffed, dealing with the many queries, such as people wanting to know if their plane is on time, the location of a bank or hotel, or trying to work out how to get by road or rail to their final destination. Passengers flow through the lounges, passport control and security checks, and use toilets, duty free shops and restaurants, all of which have to be kept clean and stocked for their convenience. All of these activities, and more, are coordinated by BIA's Operations Director, Richard Heard. Richard explains his role:

'Out of all the people that work at the airport, BIA employs about 700 and I oversee about 600 of them. These operations people are basically concerned with the day-to-day running of the airport and the short and medium-term operational planning. This includes a whole raft of things on the airfield and in and around the terminals. The airfield side of things essentially involves maintaining the runways, agreeing slot allocations with the airlines, developing and implementing safety management systems and keeping the fire crew fully trained, for example. This is a heavily regulated area so we work very closely with the Civil Aviation Authority. The other side of the operation is about managing the terminal buildings and other facilities. This is almost like running a shopping centre with its focus on customer service but with special security arrangements. Airport security is a key task which we run in-house, employing about 300 people. I also have a facilities management team and an engineering services team that look after the maintenance of the whole site.'

'In terms of long-term design and development, we set up teams to oversee the planning of new building projects, such as new catering outlets, car parks and people mover systems. This plan uses the forecasts of passenger numbers and guides our decisions about what to build and when, and how to pay for it. We have been growing at a rate of about 10 per cent a year over the last 10 years. In 2000 the airport handled 7.6 million passengers and our growth is set to continue, with an anticipated 10 million passengers expected to travel through Birmingham by 2005. This plan involves serious money; we are talking about a capital plan of about £50 million a year over the next 15 years. This is all very much driven by operational needs. Managing and developing the airport's operations are huge challenges.

'One of the major tasks for operations is not just to provide the infrastructure for all the other organisations on site - such as airlines, handling agents, retailers, cargo handlers - but also to provide the leadership and coordination for them. There are also groups off site, such as community groups, which we liaise with as we work to monitor and improve the environment. My personal job is about coordination and setting the safety and customer service standards for everyone to adhere to.

'All of us from the different organisations try to work together as a team and there is a great community spirit here that has built up over the years. Everyone wants' their own bit to work

well and the whole thing to work well together. We all have a great understanding of everyone's problems and there is an excellent spirit of cooperation.

'The real secret of managing operations, if you are ever going to sleep at night, is to make sure you have really good processes and procedures in place. We can't have people making it up on the spot. Everything has to be thought through and tried and tested. We spend a great deal of time reviewing and developing processes. We have to have procedures for fires, evacuations, bomb threats, ill passengers and even deaths in the terminal. Unfortunately, we do have medical emergencies, not surprising since we have about 30000 people passing through the airport every day in the summer.

'Another key task is operational planning. We do this on an annual basis. Operational planning is about making the operation as efficient as possible by working out how we can best allocate our infrastructure to the airlines. For example, we need to decide who is going to get the air bridges, who is going to get certain stands, who is going to have their passengers bused to the terminal at peak times, and so on. However, you have to remember that the operational plans are just that, plans, and as ever, things go wrong - schedules fall apart because of plane delays or mechanical problems, for example. So we also have terminal duty managers whose job it is to sort out the day-to-day operational problems. Our team of terminal managers covers the airport 24 hours a day, every day of the week, with one senior manager overseeing each shift.

'Many of the things that happen are recurring problems, such as delays or diversions, and you know you will end up with a lot of passengers waiting around a lot longer than they want to. The job of the duty manager is to coordinate all our efforts, ensuring that the catering people know what's happening and making sure our information services people know so they can tell the passengers, for example. The terminal managers need to keep their ears and eyes open. Passengers may report that they have seen someone acting suspiciously and the managers need to know what to do. When passengers get off the plane and their bags are not there, although it's the responsibility of the airlines or their handling agents, our people may have to pick up the pieces. When people try taking prohibited items through security, such as a family heirloom with a large curved blade, we have to explain patiently to them that they have to leave it with us.

The terminal managers also have to deal with major incidents - things like bomb threats or, like last year, when the Spanish coach drivers went on strike leaving many passengers stranded at the airport. The job of the terminal manager is to sort it all out and make sure everyone knows what is happening. It involves a great deal of common sense but it is not easy. If you have to do an evacuation, for example, everyone will be at different stages in the passenger processing and security clearance procedures, so when the incident is over, we have to try to put them all back where they came from without mixing them up or they all have to start the process again!

'We have the equivalent of the terminal duty managers looking after the airfield side: operations duty managers. Their job is about dealing with the day-to-day problems, such as changing stand allocations when delays occur or arranging snow clearance if we have a sudden fall. Again plans are in place and everything has to be thought through. We also have weekly communication meetings when we get the operations and duty managers to work with the operational planning department.

'Our mission is to be the best regional airport in Europe. To do this we need continually to try to improve everything we do. It sounds simple but it is not easy. For example, we have almost no capacity at the peak times, that is between 7.00 a.m. and 8.00 a.m. and between 5.00 p.m. and 6.00 p.m. when we are busy with short-haul European traffic, so we are trying to encourage other airlines to fill in the off-peak times. This is ideal for long-haul operators and we now have flights to South East Asia and America, and just last year we added an

Emirates flight to Dubai. This allows us to use the middle of the day when we have runway and terminal capacity and it suits everybody as we can all make better use of our facilities.

'Running an airport is a fascinating and exciting challenge. No two days are the same. We know that we can make a real difference to our customers, both passengers and airlines, by what we do. We also make a major contribution to the impact on the local economy by encouraging inward investment and exports. As an operations manager, my job is to make it all happen. It's a fantastic opportunity and it really does make a difference- it's great!'

- 1.1 What exactly is the job of the operations director?
- 1.2 What are the main issues/problems he faces in managing the airport?
- 1.3 What do you think Richard Heard actually does each day? (i.e. how does he spend his time?)

There are a number of case studies on e-Fundi for further reading. However, they are not part of the assessment and are just given to demonstrate application of the theory.

You could find valuable additional resources on the NWU SBG website, especially at <http://www.valuebasedmanagement.net>

11. ASSIGNMENTS (Assessment)

11.1 INDIVIDUAL ASSIGNMENT

TOTAL MARKS: 100

Continuous. Final portfolio due on 21 May 2018 (Potchefstroom, Vaal Triangle) and 4 June (Mafikeng)

Introduction: Unlike other courses during your MBA studies, there is no single individual assignment for Operations Management. You will study operations management principles in your own organisation.

The organisation: You must get permission from your own company (where you are employed) to analyse operations management in the organisation. On e-Fundi there is a draft letter that your employer has to complete in which you are granted permission to analyse the organisation. Any information that you submit will be treated confidentially, should the organisation wish us to do so. You could even use a pseudonym for the organisation to ensure anonymity. For those of you that are presently unemployed, you have the option to choose any organisation of your choice to analyse, as long as you do it with the permission of the management of such company. If you are working for a division of a large corporation, rather analyse the division or even one section inside the division. Some issues (such as supply chain management) could go beyond the boundaries of such a section, but the section should be the common denominator. (From here on I shall refer to "your organisation"). Note, although you have the option of choosing an organisation other than your own, from past experience it is advisable to use your own workplace as your "laboratory".

Preparation for the assignment: All the slides for the semester are pre-loaded on efundi with narrative comments attached. Before you attempt the assignment, you should go through the slide show, as well as through the respective chapters in the textbook (Heizer, Render & Monson).

Your assignment: From contact 1 through to contact 6 you will be required to submit some evidence that you have done the self-study and for two contact sessions you will have to submit proof that you have applied the content to your own organisation. You can choose for which two contact sessions you would like to submit a long assignment. During the semester you have to summarise each topic, and for those contact sessions that you have chosen, you have to describe the application of that topic in your organisation and suggest improvements based on the theory to the way that that specific issue is presently handled in your organisation. You will have to submit your weekly submissions **as pdf files** in the following format:

1. Name of the document: Surname-First name-Student number-Contact session.pdf (Example: *Lincoln-Abe-12345678-Contact1.pdf*). It is vital that you follow these instructions closely to enable a proper filing structure. Incorrectly labelled documents will NOT be marked.
2. Font: Arial or Calibri, Size: 12 point, Spacing: 1.15, Margins: 2cm all sides.
3. You do not need to supply a cover sheet other than the one on the template. Submission on eFundi includes a pledge that it is your own work. All submissions pass through Turnitin.com, so that copying of someone else's work will be detected. (I presume that the theory page would include some second-hand quotes. This is permissible.)
4. First page: (short and long submission) Give a **brief** theoretical discussion of the theory covered in the slide show. Use bullet points for better structure and easier readability. At the bottom of the page you should list any issue that you still do not understand. Note: You are allowed **maximum** one page per topic (chapter), including the issues that you still don't understand on that topic. Although this could therefore cover more than one page, I shall refer to a "one-pager"
5. Second page (if you have selected to do the long submission): Give a summary of how the theory is applied in your organisation at present. (One page maximum!)
6. Third page (if you have selected to do the long submission): Based on the theory, supply suggestion to improve this aspect of management in your organisation. If you really think that this issue is already optimally handled by the organisation, you must supply reasons based on the theory why you say so. Ensure that your suggestions are practically implementable. If it would require fixed or working capital, give an estimation of the cost. (The secret is to pick the low-hanging fruit first!)
7. Some sections require diagrams that will not fit on your three pages. If that is the case, you are allowed one page with diagrams. It is up to you to use this page optimally. The diagrams must be part of the pdf-document and must NOT be supplied as separate documents in any file format. Failure to abide by these instructions will cost you marks.
8. **Deadlines:** Each contact session's assignment must be submitted on e-Fundi not later than 23:55 (five minutes before midnight) on the last Wednesday night before the contact session. Submissions close electronically and late submissions, e-mailed submissions or hard copies will be regarded as not submitted. Print your e-Fundi receipt and keep it, should there be a dispute regarding submission. I DO NOT REQUIRE A HARD COPY. The reason for this deadline is that it gives me sufficient time to prepare some of the submissions to be used as case studies in the class.

A final note: Although I only require that you have to hand in two submissions, you need to include all topics in your final portfolio. It is advisable that you do that during the semester, and not wait for the hand-in date before completing this. If you do it properly it will give you tremendous insight into your organisation and the value that the organisation adds, and those of you that experience the most difficulty in defining the issues will probably get the

most value from the assignment. This assignment will clearly indicate your understanding of your company from a management perspective. You should therefore start directly after the study school! Doing it properly will make you an extremely valuable member of your organisation. You do this assignment for yourself, not for me! Furthermore, during contact 8 you have to submit a full portfolio of evidence, of which these individual submissions will form the core. This portfolio of evidence must contain the contents of ALL SIX PRIOR CONTACT SESSIONS (not just those that you had to hand in) and it will count as your examination mark! Therefore, do it right the first time for your own benefit. Therefore, if you want to submit more than the required two long submissions, you are welcome and they will be marked.

On e-Fundi there is a template for the assignment, as well as a letter to your employer regarding this assignment. You must show this letter to him/her and **bring me a signed copy during contact session 1.**

I do not require referencing in this assignment. Should you wish to cite sources, all references must be done using the Harvard referencing style.

The total length of the short assignment (one-pager: theory page only) must not exceed one page per chapter and for the long assignment (2 selected contact sessions), it must not exceed the three additional A4-pages (One theory page per chapter, present state, suggestions for improvement, diagrams). Font: Arial or Calibri 12 pt, 1,15 spacing. The cover page is page zero. *(Example: For contact 1 you cover two chapters: If you choose the one-pager, you give me the cover page with your name and student number plus two theory pages. If you choose the three-pager, you send me the cover page, two theory pages, one page describing the present situation in the organisation, one page with recommendations based on the theory, and a possible last page with diagrams.)*

NB: Only eFundi copies will be marked. Do not wait until the last minute, because the eFundi system will be overloaded!

For the short submission (every contact), you will receive a mark out of 10, which, when added up, will count 20% towards your participation mark.

For the long submission (two or more contact sessions) you will receive a mark out of 100, which, when added up, will count 80% towards your participation mark.

Criteria for marking individual assignment for two selected contact sessions	
1	Content
1.1	Summary of theory: (10)
1.2	Application in your organisation (30)
1.3	Suggestions for improvement (30)
2	Insight (10)
3	Layout and technical aspects (10)
4	Marker's general impression (10)

11.2 GROUP ASSIGNMENT:

Your contributions on the community project during the semester, as well as your final presentation during the second last contact session will count as your group assignment for the module.

You must hand in the following copies:

- Similar to the individual assignment, during **the contact sessions that your group is selected** you are required to hand in a three-slide **PowerPoint report** on the work that you have done for your community organisation as your preparation for the session. Each three-slide report must be handed in electronically through eFundi by one of the study group members. The name of this report must be Groupname-MBAA 812-grp-contact session.pptx (or .ppt for older versions of MS PowerPoint) (*Example: Winners-MBAA 812-grp-contact2.pptx*). Make sure your text is a legible size (minimum 20pt).
- Before Contact 7, you must hand in an **electronic copy** of your complete community project report on e-Fundi with the report in **MSWord format, but saved as a pdf file**: If there are any drawings, tables, photos or diagrams, ensure that they are inserted as part of the document and NOT given as separate documents. The name of the document must be as follows: Groupname-MBAA 812-grp.pdf (*Example: Winners-MBAA 812-grp.pdf*). The cut-off time for e-Fundi-submission is 23:55 on the last Wednesday night before the class, to allow me to warn the group presenting their project in class in time and to include their presentation into my PowerPoint presentation. eFundi supplies a receipt for work successfully submitted. Ensure that the group leader prints and retains a copy of the receipt, should there be any dispute.
- An **electronic copy**, plus a **hard copy** of the full report during Contact 7: Also include the necessary cover sheet and solemn declaration that it is your own work. The names of all group members THAT CONTRIBUTED must be on the cover sheet. Also list group members that did not contribute on a separate list. See the template.
- The formal report is a maximum of ten pages. This report must consist of the following:
 - A description of the community organisation, the community work that it does as well as the business enterprise that it operates. (Maximum **one** page). This includes the contact details of the community organisation and its representative.
 - A **four**-page description of the operations management principles that were used during the project (the group's perspective), as well as those operations management principles that were actually implemented by the community organisation based on the proposals by the study group.
 - A **two**-page description of the operations management lessons learnt by the study group during the project.
 - A **three**-page description of the value that the project had for the study group members.

Apart from the formal report, include the following as attachments.

- A testimonial (or testimonials) by representatives of the community organisation. (As many as you want to include)
- A photo journal of your project, your involvement, the value that you have added and the benefactors from the project. (Unlimited length). This could be in the form

of a Youtube video. Make sure that you consider ethical considerations (such that the faces of neglected kids are not supposed to be shown). Clear the ethics issues with your community organisation's management. Should you wish to provide a Youtube video, give an address (URL) or a "hyperlink".

Maximum length: 10 A4 Typed pages (excluding attachments), 12 font Arial, 1.15 spacing. Note, not all organisations can/will use all operations principles taught (an example of a principle taught in the module that some community organisations might not use is new product development). Only address those principles that made a difference to the organisation.

Criteria for marking group assignment (MBA)	
1 (30%)	Marking of 3-slide PowerPoint shows handed in during every contact session. This includes:
1.1	Understanding of how the underlying theory is applied at the community organisation
1.2	Practical proposals to the community organisation
2 (30%)	The final report handed in during contact 8. Marks are awarded for:
2.1	Operations principles used
2.2	The difference made to the community organisation
3 (30%)	Peer rating of presentation during final contact session. Marks are awarded for:
3.1	Operations principles used (as per their need)
3.2	Difference made (including sustainability)
3.3	The difference that the project made to you as a group
4 (10%)	General quality

11.3 PORTFOLIO OF EVIDENCE

Your final examination is replaced by a portfolio of evidence of the learning that took place. This portfolio will be in a form of a management report to the management of the organisation.

Operations Management: Format for MBA operations management portfolio

Introduction: The essence of the portfolio is not only to compile your weekly submissions into one single documents, but to use the information acquired through the semester to propose a **strategic operations management plan** to the organisation that you have analysed through the semester. Note: you are not required to suggest a new company strategy (Vision, Mission, etc.) for the company, but a “way forward” for operations in the company. It could have an influence on the overall company strategy, though.

Performance levels:

Pass/fail criteria: A student will fail the “examination” if his/her portfolio

- is simply a compilation of the seven weekly submissions; or
- does not address the strategic direction in which operations in the organisation is going.

A student will pass the portfolio if he/she can prove to the examiner that he/she

- understands the theoretical background;
- has a practical grasp on the concepts covered in the syllabus;
- has critically analysed the company’s present operations;
- can present the information in a way that can shed light on the strategic direction that the company should go in terms of their operations;

In summary, if a student can compile a strategic operations management plan that critiques the present management of operations in the company and suggests changes and/or opportunities for optimisation, he/she should pass. Note: If the present strategy that you have analysed is good in your opinion, you should defend it based on Operations Management theory. It is not required that you understand the strategic process in the organisation... this is covered in your final year. What is required is that you understand where operations fits into the strategy (we have covered that in Contact 0 during the study school) and the changes that could be made on functional level to the present strategy to improve operations.

Distinction criterion: A student will receive a distinction for the portfolio if he/she can convince the examiner that he/she has a thorough level of strategic insight to such an extent that he/she can present the operations strategy to a company’s board of directors and blow their minds!

Moderators’ input:

Ten percent of the portfolios will be randomly selected and distributed to internal and external moderators to be moderated. The moderator will NOT know the original mark awarded by the examiner. This is necessary to ensure that the performance level of the Operations Management module is on par with that of other MBA modules and that we still comply with the performance levels prescribed by AMBA.

The same level of confidentiality that was assured when the project was started at the start of the semester will be guaranteed by the examiner and all the moderators.

Supplementary examination:

Final marks will be on eFundi seven working days after the final submission date as stated in the study guide. The same fail/pass/sub-minimum criteria that apply to examinations, also apply for the portfolio. Students failing the portfolio will be required to re-submit their portfolios before the date supplied in the study guide for the supplementary examination, provided they achieve the necessary subminimum required for a supplementary examination. The normal examination commission rules apply.

Technical requirements

The length of the portfolio body is set out below. Executive summary, table of contents and attachments are not included in this limitation. In terms of structure it is required that you include the following:

- *An **executive summary**;*
- *A **table of contents**;*
- *An **introduction**, describing (especially to the moderators) the nature of the company/department/business/office/plant that you are discussing (one page maximum).*
- *Strategy: You should briefly describe the stated **strategic direction/goals** in which the company is going at present (strategic goals), as provided by the executive management of the company/department (one page maximum). You have covered this for contact 1.*
- *You should also include an analysis of whether the present operations (all the elements that we have covered in class) would let the company **reach this strategic goal** (maximum 5 pages) and, based on this analysis and the theory, propose changes (maximum 5 pages) that will take the company towards this strategic goal.*
- *A **conclusion** at the end.*
- *A **testimonial/declaration** from the organisation that you have actually shared the report with them. Should there be any photos that you would like to include (evidence of changes actually made and their effects), they can be included below.*
- *A **reflection** of what you have learned about operations management during the semester (both individual and group projects) and how it influenced your understanding of operations management and your outlook on the world. Feel free to be honest! You could include ANYTHING in here. Remember, this is a reflection, which I shall use to improve the module for future groups.*
- ***References and acknowledgements** (I do not require referencing, but if you do quote sources, use the Harvard Referencing style available on the NWU library website..*
- *All six your submissions for the contact sessions must be included as **attachments**.*
- *Save your entire document as **ONE SINGLE pdf** file (use "Save As" in MSWord) and submit the pdf.*

NOTE: This portfolio will be marked very strictly, as it is benchmarked against the examination papers for other subjects. Ten per cent of the portfolios will be moderated and all portfolios will be locked up in a store room for at least three years. The level of confidentiality that your employer requires is therefore guaranteed, both by the lecturer and the moderators.

Font: Arial 12 pt. Page size: A4. Margins 2.5.

Final submission date: Monday, 21 May 2018 (contact 8) at 16:00 for both the hard copy and the electronic copy (Potchefstroom and Vaal groups) and Monday, 4 June 2018 (Mafikeng group). I need both a copy on eFundi (in pdf format) as well as a hard copy, handed in at the business school office in Potchefstroom, Vaal or Mafikeng. NO LATE SUBMISSIONS WILL BE ACCEPTED! Do not blame Eskom or the NWU network for late submission: You have ample time to submit before d-date!

For the portfolio, marks will be given for the following:

- *Mastering of the theory;*
- *Insight;*
- *The ability to apply the theory strategically;*
- *Technical quality; and*
- *An impression mark about the value of the portfolio to the organisation.*

Criteria for marking individual final portfolio of evidence	
1	Content (50)
1.1	Did the candidate convince me that he/she has a thorough understanding of the theory?
1.2	Did the candidate convince me that he/she can practically apply the theory in an organisation?
1.3	Are the identified opportunities for improvement realistic within the constraints of an actual organisation?
2	Insight: Did the candidate convince me that he/she has a genuine insight into the application of the theory and how operations management strategically fits into the rest of the organisation? (20)
3	Layout and technical aspects (10)
4	Marker's general impression (10)
5	Value added: Did the candidate convince me that he/she can add value to the company through application of this knowledge? (10)

Have a great semester!