Date: Saturday, 2 March 2024, 1:11 PM

ITSMA4-14 (2024)

Module Guide [± 60 min]

1. Module Information

Faculty	Information Technology	**NQF Level**	8
Module Code	ITMSA4	**Credit Value**	15
Module Name	Service-oriented and Microservices Architectures	**Notional Hours**	150
Year Level	4	**Prerequisites/ Corequisites**	N/A
Duration of Module	4 Blocks	**Copy Editor**	Kyle Keens

The module guide must be read in conjunction with the myLMS page and prescribed textbook. This document will be the first port of call to understanding what will be assessed and which assessments form part of the module.

The purpose of the module guide is to highlight:

- The learning outcomes and assessment criteria that need to be met to pass the module
- The assessments required to be completed for the module
- The additional resources required for the module
- The topics that will be focused on for the module

2. Module Aim

The module aims to empower students by imparting a fundamental understanding of service-oriented

architecture (SOA), facilitating the application of SOA principles to describe platform components and environments, and also guiding them through the exploration of microservices architectures to enable the creation of cohesive, modularized, and systematised microservice architectures.

3. Module Description

The module extensively covers the foundational aspects of service-oriented computing and service-oriented architecture (SOA), emphasising design principles such as service contracts, coupling, abstraction, reusability, autonomy, statelessness, discoverability, and composability. Additionally, it conducts a comparative analysis of service-orientation and object-orientation, incorporating practical supporting practices and aligning service-orientation principles with strategic goals.
Furthermore, the module explores the fundamentals of microservices architectures, focusing on their principles, value proposition, and practical aspects of design and implementation, guiding students through the microservices mindset and facilitating the creation of cohesive, modularized, and systematized microservice architectures.

4. myLMS Module Page

This myLMS page is built to ensure that you receive guidance on how to approach your module and it includes documentation to assist you in succeeding. You will be required to engage **daily** with all the material on your myLMS page to enable you to pass the module. It is important that you utilise the following resources available on your myLMS module page:

- Module guide
- Module lessons
- Blended learning activities
- Assessments
- Important notifications from your lecturer
- Module announcements (discussion forums)
- Links to lectures, lecture recordings and prescribed videos (where applicable)

Additional academic documents can be found on the myDocuments myLMS page.

5. Learning Outcomes

By the end of this module, you will be able to:

Learning Outcome	Assessment Criteria
1. Demonstrate knowledge of the fundamentals of service-oriented computing and SOA	1.1 Discuss service-oriented computing and SOA concepts. 1.2 Distinguish the relationship between service-oriented computing and broader architectural approaches. 1.3 Report on the advantages and challenges of adopting service-oriented computing.

2. Apply design principles in developing service-oriented architectures.	2.1 Design service contracts considering standardization and specific design requirements. 2.2 Assess and manage service coupling, both intra-service and with consumer dependencies. 2.3 Implement service abstraction techniques, including information hiding and meta-abstraction types. 2.4 Develop services with reusability in mind, considering both commercial and agnostic design. 2.5 Illustrate service autonomy in terms of processing boundaries and control mechanisms. 2.6 Design stateless services, deferring state management and adhering to stateless design principles. 2.7 Demonstrate how to enhance service discoverability through interpretability and effective communication. 2.8 Create and manage service compositions, considering composition member design and complex compositions.
3. Compare service-orientation and object-orientation principles and concepts, exploring supporting practices and applying principles to strategic goals. .	3.1 Analyse the principles and concepts of service-orientation and object-orientation. 3.2 Identify the similarities and differences between service-orientation and object-orientation. 3.3 Evaluate scenarios where service-orientation or object-orientation is more suitable. 3.4 Apply practical supporting practices for implementing service-oriented architectures. 3.5 Analyse the impact of supporting practices on the effectiveness of service-oriented architectures. 3.6 Align service-orientation principles with strategic goals of an organization. 3.7 Evaluate the strategic impact of implementing service-oriented architectures.

4. Analyse microservices value proposition	4.1 Discuss the key benefits of microservices architecture. 4.2 Demonstrate how to derive business value from adopting a microservices approach. 4.3 Apply a goal-oriented, layered approach to modularize and systematize microservice architecture. 4.4 Assess the maturity of a microservice architecture using a defined model.
5. Design microservice systems	5.1 Apply a systems approach to microservices, considering service, solution, process, tools, organization, and culture. 5.2 Develop a holistic system design for microservices, incorporating standardization and coordination principles. 5.3 Implement a microservices design process, including optimization goals, development principles, and system sketching.

6. Prescribed Resources

Textbook(s)

"Textbook 1/2: Thomas Erl. SOA Principles of Service Design. Pearson PTG. 1st Edition. Print ISBN: 9780132344821, 0132344823, eText ISBN: 9780132715836, 013271583X

Textbook 2/2: Irakli Nadareishvili; Ronnie Mitra; Matt McLarty; Mike Amundsen, 2016. Microservice Architecture: Aligning Principles, Practices, and Culture. Publisher: O'Reilly Media. Edition 1. Print ISBN 9781491956250, 1491956259; eText ISBN 9781491956229, 1491956224"

7. Recommended Resources

Take note that all disciplines and their corresponding textbooks are frequently updated. Therefore, you should use the latest editions, where available. Recommended resources should be used for research purposes. There is a range of resources related to this module, including the following:

Textbook(s)

Dikmans, L. and Van Luttikhuizen, R. 2012. SOA Made Simple. Birmingham: Packt Publishing.

ISBN:978-1-849684-16-3

Kalali. M. and Mehta. B. 2013. Developing RESTful Services with JAX-RS 2.0, WebSockets, and JSON. Birmingham: Packt Publishing.

ISBN: 978-1782178125

Kumar, B. V., Narayan, P. and Ng, T. 2010. Implementing SOA Using Java EE. Boston: Addison- Wesley.

ISBN: 978-0-321492-15-9

Online Document(s)

Newcomer, E., 2005. Understanding SOA with Web Services, [Online] Available at:https://www.pdfdrive.com/understanding-soa-with-web-services-d158848915.html / Understanding SOA with Web Services.pdf [Accessed: 6 October 2020].

Website(s)

Web pages provide access to a further range of internet information sources. Lecturers may download the web-related material for you to access offline. You must use this resource with care, justifying the use of information gathered.

SOA Tutorial [Online] Available at: https://www.tutorialspoint.com/soa/index.htm/ [Accessed: 6 October 2020].

SOA and Web Services [Online] Available at: https://www.roseindia.net/webservices/ [Accessed: 6 October 2020].

8. Supporting Documents

Geyer, L., Levin, A., Makati, P., Pierce, R., Potter, M., and Wheeler, A. 2019. *Eduvos Guide to Referencing (Harvard Referencing Method)*. Unpublished document. Eduvos.

9. Essential Requirements

- Access to the institution's Learning Management System (myLMS) to access all study material.
- Access to Microsoft Teams to attend online lectures and consultations.
- Access to a resource centre or an online library with a wide range of relevant resources including textbooks, newspaper articles, journal articles, organisational publications and databases.
- Access to a range of academic journals in electronic format via ProQuest or other databases.

10. Time Allocation Guideline: Full-Time Students

First Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-
Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	2	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	-
Sub Total	-	4	5	6	6	6	6	4	0
Total									37 Hours

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

Second Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-
Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	2	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	-
Sub Total	-	4	5	6	6	6	6	4	0
Total									37 Hours

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

Third Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-
Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	2	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	-
Sub Total	-	4	5	6	6	6	6	4	0

Total	37 Hours

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

Fourth Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-
Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	1	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	3
Sub Total	-	4	4	6	6	6	6	4	3
Total	39 Hours								
Overall Total	150 Hours								

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

11. Time Allocation Guideline: Part-Time Students

First Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-

Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	2	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	-
Sub Total	-	4	5	6	6	6	6	4	0
Total									37 Hours

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

Second Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-
Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	2	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	-
Sub Total	-	4	5	6	6	6	6	4	0
Total									37 Hours

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

Third Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-
Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	2	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	-
Sub Total	-	4	5	6	6	6	6	4	0
Total									37 Hours

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

Fourth Block

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Lecturer-led Sessions	No live sessions	3	3	3	3	3	3	3	-
Practicals / Tutorials	No sessions	0	0	1	1	1	1	1	-
myLMS Lessons and Activities	Learning starts	1	1	1	1	1	1	-	-
Formative Assessments[1]	-	-	-	1	1	1	1	-	-
Summative Assessments[2]	-	-	-	-	-	-	-	-	3
Sub Total	-	4	4	6	6	6	6	4	3
Total									39 Hours
Overall Total									150 Hours

[1] This time includes the preparation time and assessment time.

[2] This time includes the preparation time and assessment time.

12. ICT Requirements

<table>
<tr><th>ICT Required</th><th>Reason</th><th>Lecture Week(s)</th></tr>
<tr><td rowspan="3">Hardware Requirements:

Minimum:

Intel Core™ i5 8th Generation or higher / AMD Ryzen™ 5 3rd Generation or higher Trusted Platform Module (TPM) version 2.0
8GB RAM
256GB SATA SSD

Recommended (considering certain software and hardware-based modules):
Intel Core™ i5 8th Generation or higher / AMD Ryzen™ 5 3rd Generation or higher
Trusted Platform Module (TPM) version 2.0
16GB RAM
512GB SATA / NVMe SSD

Optimal:
Intel Core™ i7 8th Generation or higher / AMD Ryzen™ 7 3rd Generation or higher
Trusted Platform Module (TPM) version 2.0
32GB RAM
512GB NVMe SSD</td><td>Lab work</td><td rowspan="3">First Block to Second Block</td></tr>
<tr><td>Research in class time</td></tr>
<tr><td>Project in class time</td></tr>
</table>

Software Requirements:

• Microsoft Office package • GNU nano • Notepad • IDEs: Visual Studio Code, IntelliJ IDEA, Eclipse, PyCharm, NetBeans, Visual Studio		

13. Assessment

Assessments will take place continually during the blocks to evaluate your progress throughout the module.

Assessment = Formative assessment + Summative assessment

All assessments must be submitted through Turnitin, on the assessment tile, within your myLMS module page. **Assessments must not be submitted via Turnitin on the campus page(s).**

You may be required to complete some assessments online on myLMS. The following guidelines may apply:

- You may be required to write an online assessment directly on myLMS. You will need to log in at a specified time to attempt the assessment. Once the allocated time expires, the assessment will no longer be available to complete.
- Time limits should be checked before commencing assessments. Refer to the Details of Assessments table in this module guide.
- Ensure that your internet connection is stable.
- In some cases, assessments will not be available indefinitely and will be available for only a day or two.
- The marks for some assessments may only be available after all students have attempted the assessment after the assessment due date.

It is the students' responsibility to retrieve their assessment feedback and verify their marks on the day they are released. No adjustment of marks will be entertained beyond one week after marks are released.

14. Formative Assessment

14.1. Project(s)

There are two projects for this module. The projects will be completed individually. The projects are based on applying SOA and microservices concepts covered in class. For students to achieve a 50% (pass) on the project, they should spend approximately 15 – 20 hours working on each project. Each project will count 20% towards the final mark.

Projects must be submitted on or before the due date to the lecturer as per arrangement (or as otherwise stipulated). Five per cent (5%) will be deducted every day the project is late, up to a maximum of three days. Projects that are more than three days late will be awarded a zero.

14.2. Online Test

There is one online test for this module. The online test will be completed individually.

If an assessment is missed because of illness, a doctor’s note must be presented within 3 calendar days of the missed assessment to the academic admin manager/administrator/ coordinator.

To make up for this missed assessment, you may be able to attempt a deferred assessment. However, in order to gain entry to this assessment, you will have to follow various procedures and meet certain criteria. You must complete a Deferred Assessment Application Form available on myLMS. You will be required to pay a non-refundable fee per application. Each assessment missed requires a separate application. This will be your only opportunity to make up for a missed assessment.

15. Summative Assessment

The pass mark for a summative assessment is 50%. In order to pass the module, a sub-minimum mark of

40% or higher is required for the summative assessment and a final average of 50% or higher is required for the entire module.

A summative assessment schedule will be released to students on myLMS with their timetabled assessment dates before Week 5 of each block. This schedule will be made available on the MyDocuments page on myLMS.

15.1. Online Assessment

There will be one online assessment for this module. The assessment will count 50% towards the final mark

The summative assessment has a sub-minimum requirement of at least 40%. Supplementary opportunities may be available for selected assessments (refer to the Details of Assessments table) for students who fail the summative assessment(s), and these will cover the entire module's content. These will be scheduled in the allocated weeks as per the academic year calendar and may be in the form of a re-submission opportunity dependent on the type of summative assessment.

To make up for a missed summative assessment, you may be able to attempt a deferred summative assessment. This is dependent on the circumstance that affected your ability to attempt the original assessment. However, to qualify for the deferred assessment, you will have to follow various procedures and meet certain criteria. You must complete a *Deferred Assessment Application Form* available on myLMS, and you will be required to pay a non-refundable fee per application. The deferred summative assessment will be attempted at the same time as the supplementary summative assessment and will cover the entire module's content. A student who has been granted a deferred assessment and who does not present themself, or fails the assessment, will not be permitted a supplementary opportunity, and will need to re-attempt the module as stipulated in the Conditions of Enrolment.

16. Plagiarism

All assignments and reports must be submitted to the online similarity checker (Turnitin) available on myLMS prior to being submitted for marking. When submitting your assignment/report, it is compulsory to submit the entire Turnitin report. Marks will be deducted in accordance with the institutional policy.

Also, when submitting assessments you should include the applicable completed and signed assessment coversheet as an acknowledgement that the work submitted is your own original work, except for source material explicitly acknowledged. This declaration will serve as proof that you are aware of the institution's policies and regulations on academic integrity.

17. Final Mark

In order to pass the module, a final average of 50% or higher is required for the entire module.

The final mark is calculated as follows:

Final Mark [(Formative Assessment: Online test × 0.10) + (Formative Assessment: Project 1 × 0.20)+ (Formative Assessment: Project 2 × 0.20)+ (Summative Assessment percentage × 0.50)]

18. Details of Assessments

Assessment	Assessment Method	Weighting	Lecture Week	Sub-Minimum Requirement	Release Week	Submission Week	Submission Time	Duration
Formative Assessment Online test (Covers First, Second and Third Block Weeks 1 – 8)	Online Test	10%	Third Block Week 4	N/A	Third Block week 4	Third Block Week 4	23:59	1.5 hours
Formative Assessment Deferred Online Test (Covers First and Second Block Weeks 1 – 8)	Online Test	10%	Third Block Week 6	N/A	Third Block Week 6	Third Block Week 6	23:59	1.5 hours
Formative Assessment Project 1 (Covers First and Second Block Weeks 1 – 8)	Project 1	20%	Second Block Week 6	N/A	First Block Week 1	Second Block Week 6	23:59	N/A
Formative Assessment Project 2 (Covers Third and Fourth Block Weeks 1 – 8)	Project 2	20%	Fourth Block Week 6	N/A	Third Block Week 1	Fourth Block Week 6	23:59	N/A
TOTAL WEIGHT OF FORMATIVE ASSESSMENTS		**50%**						
Summative Assessment (covers all Learning Outcomes)	Online Assessment	50%	Fourth Block Week 8	40%	As per summative assessment schedule	As per summative assessment schedule	As per summative assessment schedule	3 Hours
Supplementary/Deferred Summative Assessment (covers all Learning Outcomes)	Online Assessment	50%	As per module content table	40%	As per summative assessment schedule	As per summative assessment schedule	As per summative assessment schedule	3 Hours
TOTAL WEIGHT OF SUMMATIVE ASSESSMENTS		**50%**						
TOTAL WEIGHT		**100%**						

19. Compiling a Portfolio of Evidence

You must demonstrate, through the presentation of evidence, that you have met all module requirements within the qualification being undertaken. To do this, you must organise your evidence into what is known as a 'portfolio'.

A portfolio will take time and effort to complete. It is a means of focusing and demonstrating to others your strengths and achievements. A portfolio is an important resource that you may find useful to retain once you have achieved your qualification, particularly when applying for future positions.

You are encouraged to read more about building a portfolio and to begin populating your evidence to illustrate your full skill set to future employers.

20. Consultations

Lecturers will be available for consultations. Specific details in this regard will be made available on your campus specific myLMS pages. You must give lecturers 24 hours' notice for appointments. Consultation meetings can be requested via email. It is important that you detail the requirements (chapter, section, etc.) for your consultation.

21. Module Content

You are required to attend all lessons. In addition, exercises and activities, which are supplied by lecturers, are compulsory.

21.1. First Block

Learning Weeks	Topics and Assessment Criteria Covered	Assessments	References
Week 0	No classes Orientation and Induction (New students)		

Week 1	Service-Oriented Computing and SOA AC: 1.1 - 1.2 Goals and Benefits of SOA AC: 1.3		• Chapter 3 (Erl) • First Block, Week 1 (myLMS Course Page)
Week 2	Understanding Design Principles AC: 2.1.		• Chapter 5 (Erl)Block 1/2, • First Block Week 4 (myLMS Course Page)
Week 3	Service Contracts AC: 2.1 Service Coupling AC: 2.2.		• Chapter 6, 7 (Erl) • First Block Week 3 (myLMS Course Page)
Week 4	Service Abstraction AC: 2.3.		• Chapter 8 (Erl) • First Block Week 4 (myLMS Course Page)

Week 5	Service Reusability AC: 2.4.		• Chapter 9 (Erl) • First Block Week 5 (myLMS Course Page)
Week 6	Service Autonomy AC: 2.1, 2.2.		• Chapter 10 (Erl) • First Block Week 6 (myLMS Course Page)
Week 7	Service discoverability AC: 2.5. Service composability AC: 2.6		• Chapter 12, 13 (Erl) • First Block Week 7 (myLMS Course Page)
Week 8	Service discoverability AC: 2.5. Service composability AC: 2.6		• Chapter 12, 13 (Erl) • First Block Week 8 (myLMS Course Page)
	Second Block Teaching Period Continues		

21.2. Second Block

Learning Weeks	Topics and Assessment Criteria Covered	Assessments	References
Week 0	No classes Orientation and Induction (New students)		
Week 1	Services Orientation and Object orientation AC: 3.1 -.3.3		• Chapter 7 (1/2) • Second Block Week 1 (myLMS Course Page)
Week 2	Services Orientation and Object orientation AC: 3.1 -.3.3		• Chapter 14 (1/2) • Second Block Week 2 (myLMS Course Page)
Week 3	Services Orientation and Object orientation AC: 3.1 -.3.3		• Chapter 14 (1/2) • Second Block Week 3 (myLMS Course Page)
Week 4	Supporting practices AC: 3.4 -.3.5		• Chapter 15 (1/2) • Second Block Week 4 (myLMS Course Page)
Week 5	Supporting practices AC: 3.4 -.3.5		• Chapter 15 (1/2) • Second Block Week 5 (myLMS Course Page)

Week 6	Mapping Service-orientation to support goals AC: 3.4 -.3.5	**Project 1 Submission**	• Chapter 16 (1/2) • Second Block Week 6 (myLMS Course Page)
Week 7	Mapping Service-orientation to support goals AC: 3.6		• Chapter 16 (1/2) • Second Block Week 7 (myLMS Course Page)
Week 8	Mapping Service-orientation to support goals AC:3.6		• Chapter 16 (1/2) • Second Block Week 8 (myLMS Course Page)
	Third Block Teaching Period Continues		

21.3. Third Block

Learning Weeks	Topics and Assessment Criteria Covered	Assessments	References
Week 0	No classes Orientation and Induction (New students)		

Week 1	The Microservices Way AC: 4.1.		• Chapter 1 (2/2) • Third Block Week 1 (myLMS Course Page)
Week 2	Microservice value proposition AC: 4.1 -4.4		• Chapter 2 (2/2) • Third Block Week 2 (myLMS Course Page)
Week 3	Design Microservices Systems AC: 4.2 -4.4		• Chapter 3 (2/2) • Third Block Week 3 (myLMS Course Page)

Week 4	Design Microservices Systems AC: 4.2 -4.4	**Online Test**	• Chapter 3 (2/2) • Third Block Week 4 (myLMS Course Page)
Week 5	Design Microservices Systems AC: 4.2 -4.4		• Chapter 3 (2/2) • Third Block Week 5 (myLMS Course Page)
Week 6	Establish a Foundation AC: 5.1 - 5.3	**Deferred Online Test**	• Chapter 4 (2/2) • Third Block Week 6 (myLMS Course Page)

Week 7	Establish a Foundation AC: 5.1 - 5.3		• Chapter 4 (2/2) • Third Block Week 7 (myLMS Course Page
Week 8	Establish a Foundation AC: 5.1 - 5.3.		• Chapter 4 (2/2) • Third Block Week 8 (myLMS Course Page)
	Fourth Block Teaching Period Continues		

21.4. Fourth Block

Learning Weeks	Topics and Assessment Criteria Covered	Assessments	References
Week 0	No classes Orientation and Induction (New students)		
Week 1	Service Design AC: 4.3.- 4.4; 5.1 - 5.3		• Chapter 5 (2/2) • Fourth Block Week 1 (myLMS Course Page)

Week 2	Service Design AC: 4.3.- 4.4; 5.1 - 5.3		• Chapter 5 (2/2) • Fourth Block Week 2 (myLMS Course Page)
Week 3	System Design and Operations AC: 4.4; 5.1 - 5.3		• Chapter 6 (2/2) • Fourth Block Week 3 (myLMS Course Page)
Week 4	System Design and Operations AC: 4.3 - 4.4; 5.1 - 5.3		• Chapter 6 (2/2) • Fourth Block Week 4 (myLMS Course Page)
Week 5	Adopting Microservices and Operations AC: 4.3.- 4.4; 5.1 - 5.3		• Chapter 7 (2/2) • Fourth Block Week 5 (myLMS Course Page)
Week 6	Adopting Microservices and Operations AC: 4.4; 5.3	**Project 2 Submission**	• Chapter 7 (2/2) • Fourth Block Week 6 (myLMS Course Page)
Week 7	Adopting Microservices and Operations AC: 4.2.		• Chapter 7 (2/2) • Fourth Block Week 7 (myLMS Course Page)

Week 8	**Summative Assessment**
	Supplementary/Deferred Summative Assessment