ASIA School of Business
in collaboration with MIT Sloan Management

ACE@ASB
AGILE CONTINUOUS EDUCATION

MICRO-CREDENTIAL IN SYSTEMS OPTIMIZATION

TRANSFORM COMPLEX DECISIONS INTO OPTIMAL SOLUTIONS

(HRDCorp Course Series No: 10001536122)

Faculty Professor Asad Ata

Videos are available beginning June 1, 2026

After watching the required videos, live sessions are on:

- June 7, 2026
- June 21, 2026
- July 5, 2026
- July 19, 2026

Course Credits:
1.5 Credits

HRD CORP CLAIMABLE

asb.edu.my/ace

Course Overview

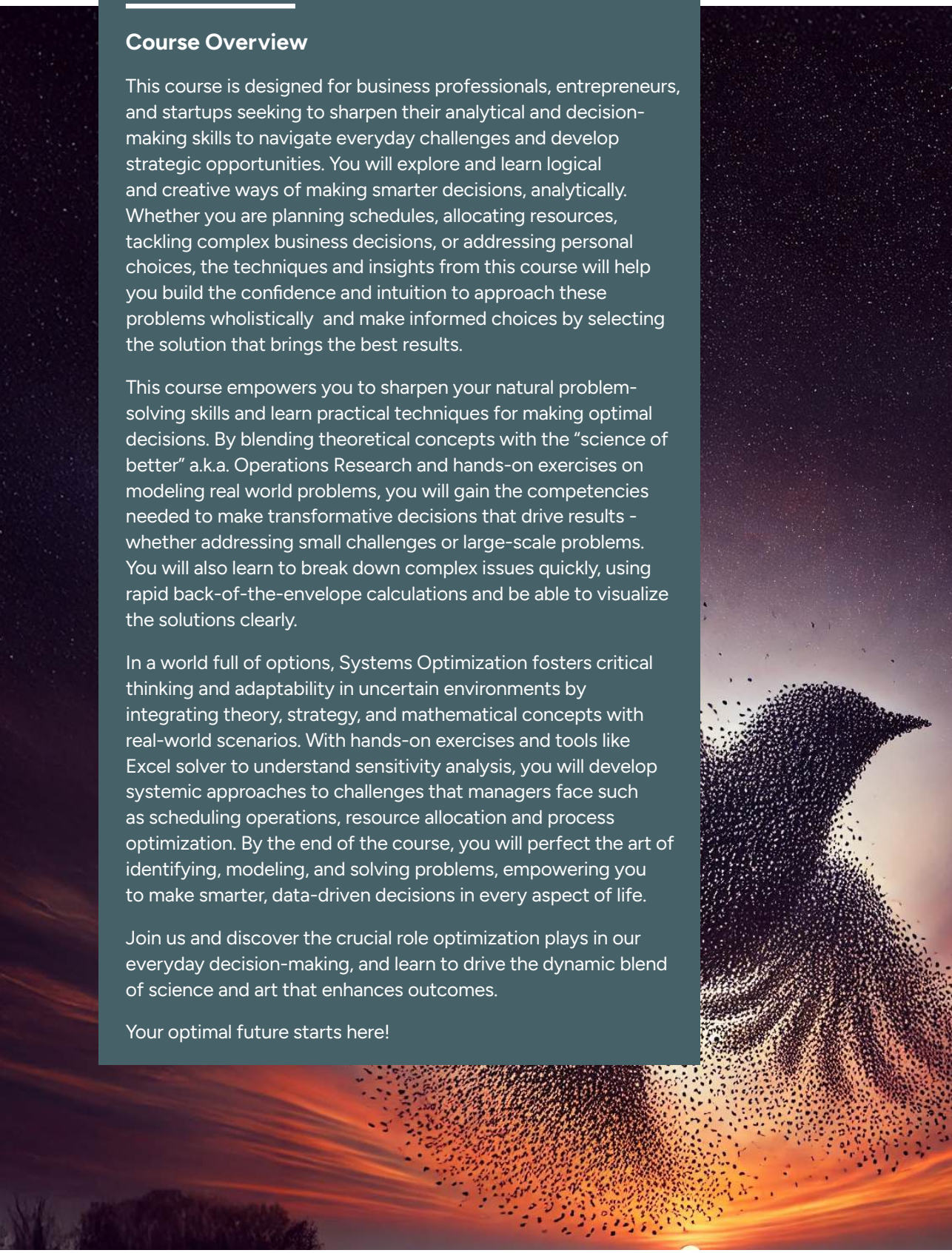
This course is designed for business professionals, entrepreneurs, and startups seeking to sharpen their analytical and decision-making skills to navigate everyday challenges and develop strategic opportunities. You will explore and learn logical and creative ways of making smarter decisions, analytically. Whether you are planning schedules, allocating resources, tackling complex business decisions, or addressing personal choices, the techniques and insights from this course will help you build the confidence and intuition to approach these problems wholistically and make informed choices by selecting the solution that brings the best results.

This course empowers you to sharpen your natural problem-solving skills and learn practical techniques for making optimal decisions. By blending theoretical concepts with the "science of better" a.k.a. Operations Research and hands-on exercises on modeling real world problems, you will gain the competencies needed to make transformative decisions that drive results - whether addressing small challenges or large-scale problems. You will also learn to break down complex issues quickly, using rapid back-of-the-envelope calculations and be able to visualize the solutions clearly.

In a world full of options, Systems Optimization fosters critical thinking and adaptability in uncertain environments by integrating theory, strategy, and mathematical concepts with real-world scenarios. With hands-on exercises and tools like Excel solver to understand sensitivity analysis, you will develop systemic approaches to challenges that managers face such as scheduling operations, resource allocation and process optimization. By the end of the course, you will perfect the art of identifying, modeling, and solving problems, empowering you to make smarter, data-driven decisions in every aspect of life.

Join us and discover the crucial role optimization plays in our everyday decision-making, and learn to drive the dynamic blend of science and art that enhances outcomes.

Your optimal future starts here!



Course Outline

Through a combination of lectures, exercises and hands-on engagement, you will explore extreme solutions to help identify the best options in a given situation. You will learn:

a. **Modeling Techniques**
Learn how to model real world situations as problems that can be solved analytically.

b. **Visualizing the Possibilities**
Learn to visualize problems as graphical models to show the range of feasible solutions.

c. **Mathematical Programming**
Represent possibilities as inequalities and solve using Linear Programming.

d. **Sensitivity Analysis**
Learn to negotiate better by understanding what to bargain for and how hard, identifying which variables and constraints matter, and recognizing where the slack lies.

e. **Designing Real World Problems as Network Flow Models**
Learn how to convert real-life problems into effective network flow models to help you make the most of your time, money, and resources.

f. **Case Study**
Apply your knowledge through a detailed network flow case study.

g. **MYOP (Model Your Own Problem)**
Put your skills into practice by designing a model for a problem of your choice.

Outcomes that Drive Business Growth

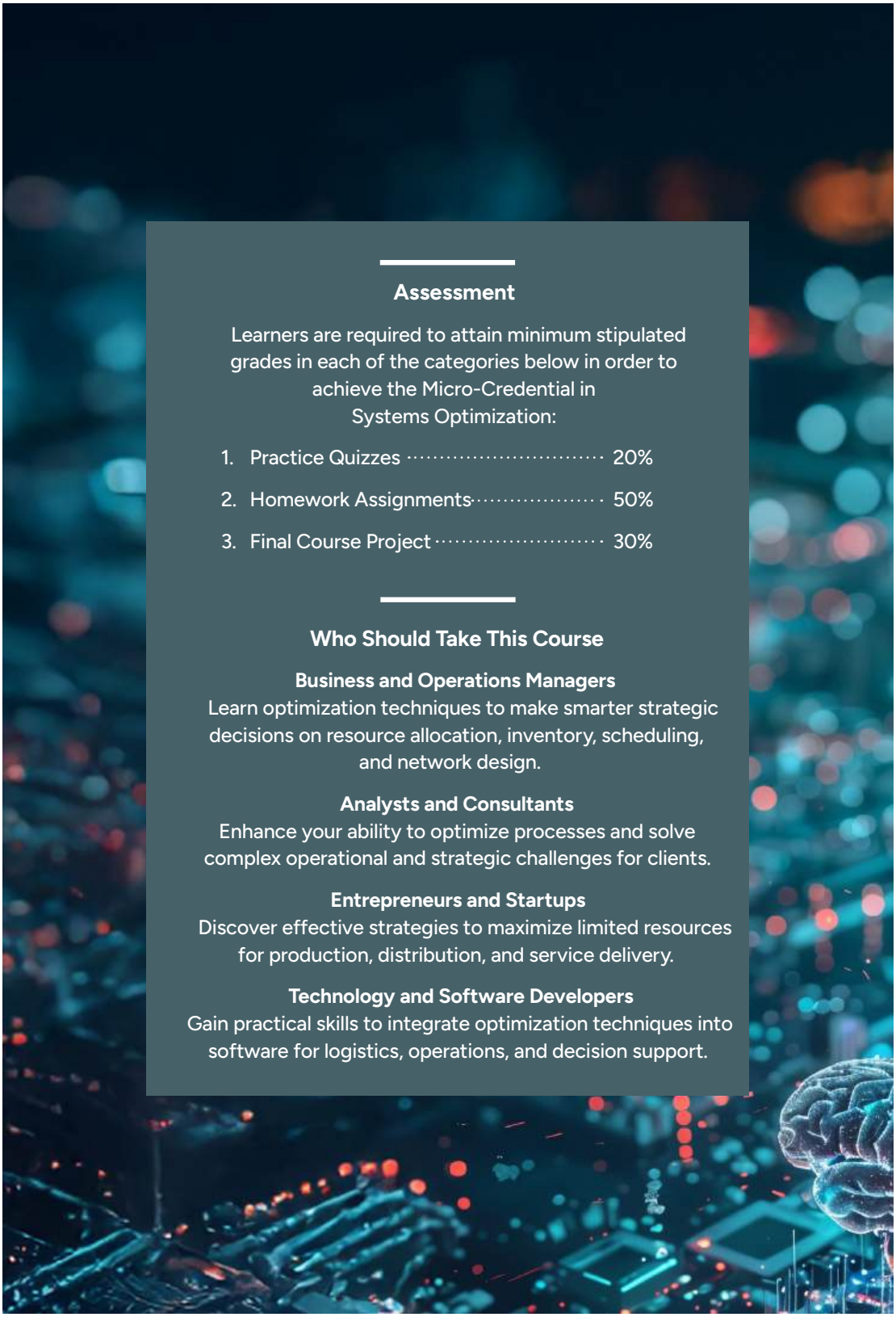
This course will enable you to:

Evaluate business problems using management science techniques

Use simple math and Excel to model real-world business challenges and find practical solutions.

Synthesize technical outcomes to enhance managerial decisions-making

Understand how reliable and applicable the solutions are in real-world scenarios.



Assessment

Learners are required to attain minimum stipulated grades in each of the categories below in order to achieve the Micro-Credential in Systems Optimization:

1. Practice Quizzes ····· 20%
2. Homework Assignments····· 50%
3. Final Course Project ····· 30%

Who Should Take This Course

Business and Operations Managers
Learn optimization techniques to make smarter strategic decisions on resource allocation, inventory, scheduling, and network design.

Analysts and Consultants
Enhance your ability to optimize processes and solve complex operational and strategic challenges for clients.

Entrepreneurs and Startups
Discover effective strategies to maximize limited resources for production, distribution, and service delivery.

Technology and Software Developers
Gain practical skills to integrate optimization techniques into software for logistics, operations, and decision support.

Academic Requirements/Prerequisites
A basic understanding of high school algebra and calculus will be helpful. Participants should be comfortable using spreadsheets. Experience with Excel Solver is a plus but not required.

Reviewing optimization concepts from Khan Academy can provide a good head start.

Derivative applications | Khan Academy (https://www.khanacademy.org/math/old-differential-calculus/derivative-applications-dc/optimization-dc)

Duration
Total 7 weeks (this includes time for students to view videos before the first live session).

Course Credits
1.5 credit course

Fees
RM8,500

Course Commencement Date
June 7, 2026

Live-session dates in table below:

Live-session	Date and Time
First Live-session	Sunday, June 7, 2026 2:00 p.m. – 5:30 p.m. (Malaysia Time)
Second Live-session	Sunday, June 21, 2026 10:00 a.m. – 1:30 p.m. (Malaysia Time)
Third Live-session	Sunday, July 5, 2026 10:00 a.m. – 1:30 p.m. (Malaysia Time)
Fourth Live-session	Sunday, July 19, 2026 10:00 a.m. – 1:30 p.m. (Malaysia Time)

Faculty

Asad Ata is a Professor of Practice for Operations and Supply Chain Management and the Faculty Director of Center for Sustainable Small-owners (CSS) at the Asia School of Business. His primary areas of research include sustainable sourcing and supply chain management. Professor Asad has worked full-time in the industry for over 12 years on various supply chain IT, telecom, and e-commerce projects. He has also worked extensively with food and agricultural supply chains with multinational corporations, NGOs, government organizations, and agencies such as the United States Agency for International Development (USAID) and SWIFT.

With a team of more than 40 researchers, field officers, and consultant agronomists, he leads a sustainability center for SMEs and small farmers of oil palm in Malaysia. Professor Asad is working with small farmer communities to design supply chains that are socially responsible, environmentally sustainable, and e conomically viable. Professor Asad Ata has been appointed on the Technical Advisory Committee for Mechanization & Automation Research Consortium for Oil Palm (MARCOP) Malaysia, a Government-Industry platform to discuss, develop and adopt mechanization and automation technologies for oil palm. In addition he is also on the advisory board of PERTANIGA, an independent smallholder association of Oil Palm farmers in Malaysia.

Professor Asad teaches graduate programs in the areas of logistics, supply chain management, and sustainability. His teaching and research expertise covers operations and supply chain management, analytics, software systems, optimization, and data modeling. Professor Asad has been a Research Affiliate with MIT from 2011, where he has taught for MIT Global Supply Chain And Logistics Excellence (SCALE) Network. He has been part of the design team for MIT's first X-Series MOOC on Supply Chain Management.

Professor Asad received his PhD in Operations Research from Southern Methodist University in Dallas, Texas, USA. He completed his Master's degree from Arizona State University in Tempe, Arizona, USA. He completed his undergraduate degree from the Indian Institute of Technology, Kharagpur, India.

RM8,500 or approx USD 1,848*

*This ACE course is exempt from Malaysian SST for Malaysian participants, as it forms part of ASB's accredited degree program. A 6% SST charge will apply to international participants starting July 1, 2025, as announced by the Royal Malaysian Customs Department.

The ACE courses are:

- Stackable to degrees. They can be combined to gain eligibility to apply for comprehensive qualifications, culminating in the ASB Master of Business Administration (full-time 12 months) or Executive Master of Business Administration degrees (part-time 16 months).
- HRD Corp and STF claimable by eligible Malaysian employers, terms and conditions apply.

Register now for this course:

Asia School of Business, ASB Academic,
11 Jalan Dato' Onn, 50480 Kuala Lumpur

Ministry of Higher Education Malaysia
Registration No: DU046(W)

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