



Teaching Experiences Sharing of EMI Courses in AI for Business Applications

2022/5/5 (Thursday) 12:10 - 13:00 B302, AACSB, National Taipei University



Min-Yuh Day, Ph.D,

Associate Professor

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2022-05-05







certified

Cloud Practitioner



Min-Yuh Day, Ph.D.



Associate Professor, Information Management, NTPU Visiting Scholar, IIS, Academia Sinica Ph.D., Information Management, NTU Director, Intelligent Financial Innovation Technology, IFIT Lab, IM, NTPU Artificial Intelligence, Financial Technology, Big Data Analytics, **Data Mining and Text Mining, Electronic Commerce**















- EMI Teacher Community, AACSB, NTPU
- EMI Courses in AI for Business Applications
- Teaching Experiences Sharing

EMI Teacher Community AACSB, NTPU

EMI Teacher Community Activities



- 1. 2022/05/05 (Thursday) 12:00 pm-13:00 pm, B302
 - Teaching Experiences Sharing of EMI Courses in AI for Business Applications
 - Min-Yuh Day, National Taipei University,
 - <u>https://meet.google.com/zuc-yyaw-mnt</u>
- 2. 2022/05/11 (Wednesday) 9:10 am 12:00 pm, B313
 - Agile Principles Patterns and Practices in FinTech and Digital Transformation
 - Shihyu (Alex) Chu, Senior Industry Analyst/Program Manager, Market Intelligence & Consulting Institute (MIC)
 - <u>https://docs.google.com/forms/d/e/1FAIpQLScI7zvABRvtffqeZgT-_OWNbOsyIXBOn6Lt_tJ4-SuhZENyRQ/viewform</u>
- 3. 2022/05/11 (Wednesday) 12:10 pm 13:00 pm, B313
 - Professional Business Presentations in English
 - Shihyu (Alex) Chu, Senior Industry Analyst/Program Manager, Market Intelligence & Consulting Institute (MIC)
 - https://docs.google.com/forms/d/e/1FAIpQLScA0Qq52qjQ5MDAyEDxHyui7VrVdkIpsOSDzWXAwWi-kKLVAw/viewform
- 4. 2022/05/18 (Wednesday) 12:10 pm 13:00 pm, B313
 - Web 3: From DeFi to WoFi
 - Prof. Shih-wei Liao, National Taiwan University
 - <u>https://docs.google.com/forms/d/e/1FAIpQLSdkE-x4CW2w2LAjPEJcHCx25GAx4KYS1cHxUv9iiroda1cXYQ/viewform</u>

EMI Courses in Al for Business Applications



EMI Courses in AI for Business Applications



Artificial Intelligence for Text Analytics

•Spring 2022

Software Engineering

•Spring 2022

Teaching Experiences Sharing







- Artificial Intelligence for Text Analytics
 - Spring 2022
- Software Engineering
 - Fall 2020, Fall, 2021, Spring 2022
- Artificial Intelligence in Finance and Quantitative
 - Fall 2021
- Artificial Intelligence
 - Spring 2021
- Data Mining
 - Spring 2021
- Big Data Analytics
 - Fall 2020
- Foundation of Business Cloud Computing
 - Spring 2021, Spring 2022







- 智慧金融大數據分析 (AI in Finance Big Data Analytics) (MBA, DBETKU) (Fall 2019) (MBA, DBETKU) (3 Credits, Elective) [Full English Course] [Distance Learning] (1081) (淡江大學數位商務與經濟碩士學位學程) (選修3學分) [全英語授課][遠距教學] (2019.09 - 2020.01) (週二 Tue, 2, 3, 4, 9:10-12:00) (B1012)
- 巨量資料探勘 (Big Data Mining) (MBA, DBETKU) (Fall 2018) (MBA, DBETKU) (3 Credits, Required) (M2244) (8619) [Full English Course] (1071) (淡江大學數位商務與經濟碩士學位學程) (必修3學分) [全英語授課] (2018.09-2019.01) (週一 Mon, 9, 10, 11, 16:10-19:00) (B206)







- 社群網路應用程式設計 (Social Media Apps Programming) (MBA, IMTKU) (Fall 2018) (MBA, IMTKU) (2 Credits, Elective) (M2143) (8550) [Full English Course] (1071) (淡江大學資管所碩士班) (選修2學分) [全英語授課] (2018.09-2019.01) (週四 Thu, 3, 4, 10:10-12:00) (B206)
- ・社群網路應用程式設計 (Social Media Apps Programming) (MBA, IMTKU) (Fall 2017)
- ・社群網路應用程式設計 (Social Media Apps Programming) (MBA, IMTKU) (Fall 2016)
- ・社群網路應用程式設計 (Social Media Apps Programming) (MBA, IMTKU) (Fall 2015)
- ・社群網路應用程式設計 (Social Media Apps Programming) (MBA, IMTKU) (Fall 2014)
- ・社群網路應用程式設計 (Social Media Apps Programming) (MBA, IMTKU) (Fall 2013)

Artificial Intelligence for Text Analytics



Introduction to Artificial Intelligence for Text Analytics

1102AITA01 MBA, IM, NTPU (M5026) (Spring 2022) Tue 2, 3, 4 (9:10-12:00) (B8F40)



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2022-02-22



https://meet.google.com/ paj-zhhj-mya



Course Syllabus National Taipei University Academic Year 110, 2nd Semester (Spring 2022)

- Course Title: Artificial Intelligence for Text Analytics
- Instructor: Min-Yuh Day
- Course Class: MBA, IM, NTPU (3 Credits, Elective)
- Details
 - In-Class and Distance Learning EMI Course (3 Credits, Elective, One Semester) (M5026)
- Time & Place: Tue, 2, 3, 4, (9:10-12:00) (B8F40)
- Google Meet: https://meet.google.com/paj-zhhj-mya





Course Objectives



- 1. Understand the fundamental concepts and research issues of <u>Artificial Intelligence for Text Analytics</u>.
- 2. Equip with Hands-on practices of <u>Artificial Intelligence</u> <u>for Text Analytics</u>.
- 3. Conduct information systems research in the context of <u>Artificial Intelligence for Text Analytics</u>.

Course Outline



- This course introduces the fundamental concepts, research issues, and hands-on practices of Artificial Intelligence for Text Analytics.
- Topics include:
 - **1.** Introduction to Introduction to Artificial Intelligence for Text Analytics
 - 2. Foundations of Text Analytics: Natural Language Processing (NLP)
 - 3. Python for Natural Language Processing
 - 4. Natural Language Processing with Transformers
 - 5. Text Classification and Sentiment Analysis
 - 6. Multilingual Named Entity Recognition (NER), Text Similarity and Clustering
 - 7. Text Summarization and Topic Models
 - 8. Text Generation
 - 9. Question Answering and Dialogue Systems
 - 10. Deep Learning, Transfer Learning, Zero-Shot, and Few-Shot Learning for Text Analytics
 - **11.** Case Study on Artificial Intelligence for Text Analytics

Core Competence



• Exploring new knowledge in information technology, system development and application 80 %

Internet marketing planning ability 10 %

Thesis writing and independent research skills 10 %



Four Fundamental Qualities

- Professionalism
 - Creative thinking and Problem-solving 40 %
 - Comprehensive Integration 40 %
- Interpersonal Relationship
 - Communication and Coordination 10 %
 - Teamwork 5 %
- Ethics
 - Honesty and Integrity 0 %
 - Self-Esteem and Self-reflection 0 %
- International Vision
 - Caring for Diversity 0 %
 - Interdisciplinary Vision 5 %



College Learning Goals

- •Ethics/Corporate Social Responsibility
- •Global Knowledge/Awareness
- Communication
- Analytical and Critical Thinking



Department Learning Goals

- Information Technologies and
 System Development Capabilities
- Internet Marketing Management Capabilities
- Research capabilities





- **1 2022/02/22 Introduction to Artificial Intelligence for Text Analytics**
- 2 2022/03/01 Foundations of Text Analytics: Natural Language Processing (NLP)
- 3 2022/03/08 Python for Natural Language Processing
- 4 2022/03/15 Natural Language Processing with Transformers
- 5 2022/03/22 Case Study on Artificial Intelligence for Text Analytics I
- 6 2022/03/29 Text Classification and Sentiment Analysis





- 7 2022/04/05 Tomb-Sweeping Day (Holiday, No Classes)
- 8 2022/04/12 Midterm Project Report
- 9 2022/04/19 Multilingual Named Entity Recognition (NER), Text Similarity and Clustering
- 10 2022/04/26 Text Summarization and Topic Models
- 11 2022/05/03 Text Generation
- **12 2022/05/10 Case Study on Artificial Intelligence for Text Analytics II**





- 13 2022/05/17 Question Answering and Dialogue Systems
- 14 2022/05/24 Deep Learning, Transfer Learning, Zero-Shot, and Few-Shot Learning for Text Analytics
- 15 2022/05/31 Final Project Report I
- 16 2022/06/07 Final Project Report II
- 17 2022/06/14 Self-learning
- 18 2022/06/21 Self-learning



Teaching Methods and Activities

- Lecture
- Discussion
- Practicum



Evaluation Methods

- Individual Presentation 60 %
- Group Presentation 10 %
- Case Report 10 %
- Class Participation 10 %
- Assignment 10 %



Software Engineering

Introduction to Software Engineering

1102SE01 MBA, IM, NTPU (M5010) (Spring 2022) Wed 2, 3, 4 (9:10-12:00) (B8F40)



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2022-02-23





Course Syllabus National Taipei University Academic Year 110, 2nd Semester (Spring 2022)

- Course Title: Software Engineering
- Instructor: Min-Yuh Day
- Course Class: MBA, IM, NTPU (3 Credits, Elective)
- Details
 - In-Person and Distance Learning EMI Course (3 Credits, Elective, One Semester) (M5010)
- Time & Place: Wed, 2, 3, 4, (9:10-12:00) (B8F40)
- Google Meet: https://meet.google.com/ish-gzmy-pmo





Course Objectives



- 1. Understand the fundamental concepts and research issues of <u>software engineering</u>.
- 2. Equip with Hands-on practices of software engineering.
- 3. Conduct information systems research in the context of software engineering.

Course Outline



- This course introduces the fundamental concepts, research issues, and hands-on practices of software engineering.
- Topics include:
 - 1. Introduction to Software Engineering
 - 2. Software Products and Project Management: Software product management and prototyping
 - 3. Agile Software Engineering: Agile methods, Scrum, and Extreme Programming
 - 4. Features, Scenarios, and Stories
 - 5. Software Architecture: Architectural design, System decomposition, and Distribution architecture
 - 6. Cloud-Based Software: Virtualization and containers, Everything as a service, Software as a service
 - 7. Cloud Computing and Cloud Software Architecture
 - 8. Microservices Architecture, RESTful services, Service deployment
 - 9. Security and Privacy; Reliable Programming
 - 10. Testing: Functional testing, Test automation, Test-driven development, and Code reviews
 - 11. DevOps and Code Management: Code management and DevOps automation
 - 12. Case Study on Software Engineering

Core Competence



• Exploring new knowledge in information technology, system development and application 80 %

Internet marketing planning ability 10 %

Thesis writing and independent research skills 10 %



Four Fundamental Qualities

- Professionalism
 - Creative thinking and Problem-solving 30 %
 - Comprehensive Integration 30 %
- Interpersonal Relationship
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 - Teamwork 10 %
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Department Learning Goals

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 System Development Capabilities
- Internet Marketing Management Capabilities
- Research capabilities





- **1 2022/02/23 Introduction to Software Engineering**
- 2 2022/03/02 Software Products and Project Management: Software product management and prototyping
- 3 2022/03/09 Agile Software Engineering: Agile methods, Scrum, and Extreme Programming
- 4 2022/03/16 Features, Scenarios, and Stories
- 5 2022/03/23 Case Study on Software Engineering I
- 6 2022/03/30 Software Architecture: Architectural design, System decomposition, and Distribution architecture





- 7 2022/04/06 Make-up holiday (No Classes)
- 8 2022/04/13 Midterm Project Report
- 9 2022/04/20 Cloud-Based Software: Virtualization and containers, Everything as a service, Software as a service
- **10 2022/04/27 Cloud Computing and Cloud Software Architecture**
- 11 2022/05/04 Microservices Architecture, RESTful services, Service deployment
- **12 2022/05/11 Industry Practices of Software Engineering**





- Week Date Subject/Topics
- **13 2022/05/18 Case Study on Software Engineering II**
- 14 2022/05/25 Security and Privacy; Reliable Programming;
 Testing: Test-driven development, and Code reviews;
 DevOps and Code Management: DevOps automation
- 15 2022/06/01 Final Project Report I
- 16 2022/06/08 Final Project Report II
- 17 2022/06/15 Self-learning
- 18 2022/06/22 Self-learning



Teaching Methods and Activities

- Lecture
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