



FACULTY OF INFORMATION TECHNOLOGY

Artificial Intelligence Fundamentals (NM TTNT)

Semester 1, 2023/2024

Information

- ▶ Name:
Artificial Intelligence
Fundamentals
- ▶ Credit points: 4
- ▶ Lectures: 45 h
- ▶ Labs: 30 h

Course

- ▶ Name:
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- ▶ Email:
nvdu@hcmuaf.edu.vn



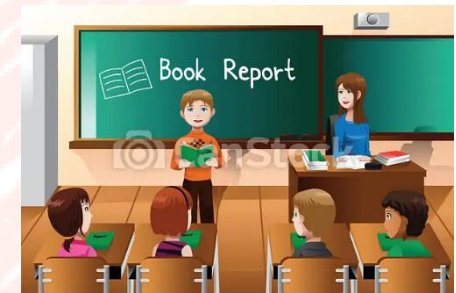
Lecturer

Content

- ▶ Chapter 1. Introduction to Artificial Intelligence
- ▶ Chapter 2. Intelligent Agents
- ▶ Chapter 3. Uninformed Search
- ▶ Chapter 4. Informed Search
- ▶ Chapter 5. Game
- ▶ Chapter 6. Logical Agents
- ▶ Chapter 7. First-Order Logic
- ▶ Chapter 8. Learning Agents

Assessment

- ▶ Attendance: 10%
- ▶ Labs: 20%
- ▶ Project: 20%
- ▶ Final exam: 50% (writing test)



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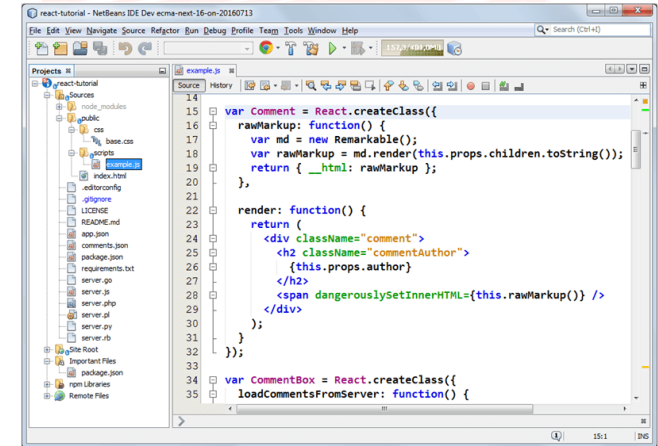


A SHORT GUIDE THROUGH PERSONAL DEVELOPMENT
**HOW TO
PASS
EXAMS**
THE COOL WAY

FOTIS CHRYSOCHOS

Assessment: Labs

- ▶ Coding assignments:
 - 20% of the grade,
 - Programming assignments.
- ▶ Collaborations:
 - Individual assignments
- ▶ Programming language:
 - Java



Assessment: Project

- ▶ 20% of the grade
- ▶ ~4 students/group
- ▶ Survey an **AI techniques/applications** in a specific field

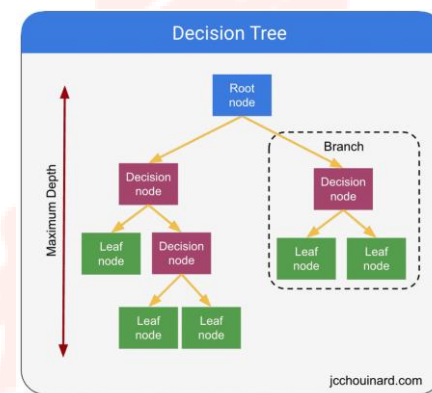
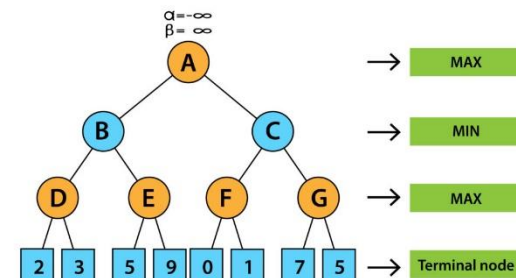
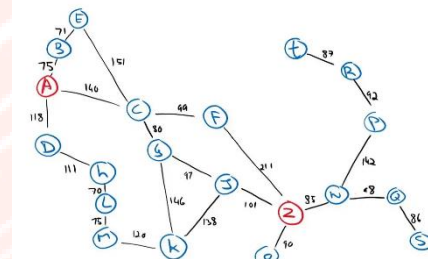


Assessment: Final exam

- ▶ 50% of the grade
- ▶ All course contents are possible
- ▶ Writing test

\wedge	<i>and</i> [conjunction]
\vee	<i>or</i> [disjunction]
\Rightarrow	<i>implies</i> [implication]
\neg	<i>not</i> [negation]
\forall	<i>For all</i>
\exists	<i>There exists</i>

English	First-Order
At least one x is P	$\exists x P(x)$
All x are P	$\forall x P(x)$
Some x are P	$\exists x P(x)$
Not all x are P	$\exists x \neg P(x)$
No x are P	$\forall x \neg P(x)$



Material

▶ Course textbook:

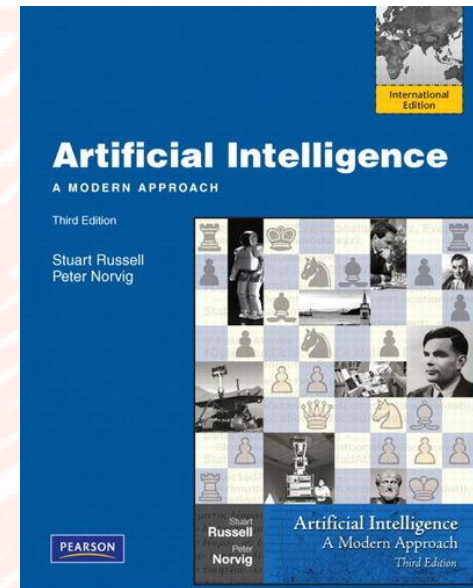
- S. Russell and P. Norvig, *Artificial Intelligence: A Modern Approach* Third Edition, Prentice Hall, 2010.

<https://bit.ly/2S9nNwm>

▶ Other textbooks:

- E. Charniak and D. McDermott, *Introduction to Artificial Intelligence*, 1999, Second Edition.
- J. Finlay and A. Dix, *Introduction to Artificial Intelligence*, UCL Press Limited, 1997.
- N. Forbes, *Imitation of Life: How Biology is Inspiring Computing*, Cambridge MA, MIT Press, 2004.
- M. Sipper, *Machine Nature: The Coming of Bio-Inspired Computing*, Cambridge MA, MIT Press, 2002. (ISBN 0071387048).

◦ ...



Course textbook: AIMA

<http://aima.cs.berkeley.edu/>

<http://norvig.com/gsoc-ideas.html>

AIMA Home ▾

Acknowledgements

Code

Contents

Courses

Editions

Errata

Exercises

Figures

for Instructors

Pseudocode

Reviews

Artificial Intelligence: A Modern Approach



(Fourth edition, 2020)

by Stuart Russell and Peter Norvig

The [leading textbook](#) in Artificial Intelligence, used in [1500](#) schools in [135](#) countries and regions.

Table of Contents

[Preface \(pdf\)](#); [Contents with subsections](#)

I Artificial Intelligence

- 1 Introduction ... 1
- 2 Intelligent Agents ... 36

II Problem-solving

- 3 Solving Problems by Searching ... 63
- 4 Search in Complex Environments ... 110
- 5 Adversarial Search and Games ... 146
- 6 Constraint Satisfaction Problems ... 180

III Knowledge, reasoning, and planning

- 7 Logical Agents ... 208
- 8 First-Order Logic ... 251
- 9 Inference in First-Order Logic ... 280
- 10 Knowledge Representation ... 314
- 11 Automated Planning ... 344

IV Uncertain knowledge and reasoning

- 12 Quantifying Uncertainty ... 385
- 13 Probabilistic Reasoning ... 412
- 14 Probabilistic Reasoning over Time ... 461
- 15 Probabilistic Programming ... 500
- 16 Making Simple Decisions ... 528

V Machine Learning

- 19 Learning from Examples ... 651
- 20 Learning Probabilistic Models ... 721
- 21 Deep Learning ... 750
- 22 Reinforcement Learning ... 789

VI Communicating, perceiving, and acting

- 23 Natural Language Processing ... 823
- 24 Deep Learning for Natural Language Processing ... 856
- 25 Computer Vision ... 881
- 26 Robotics ... 925

VII Conclusions

- 27 Philosophy, Ethics, and Safety of AI ... 981
- 28 The Future of AI ... 1012
- Appendix A: Mathematical Background ... 1023
- Appendix B: Notes on Languages and Algorithms ... 1030
- Bibliography ... 1033 ([pdf](#) and [bib data](#))
- Index ... 1069 ([pdf](#))

[Exercises \(website\)](#)

[Figures \(pdf\)](#)

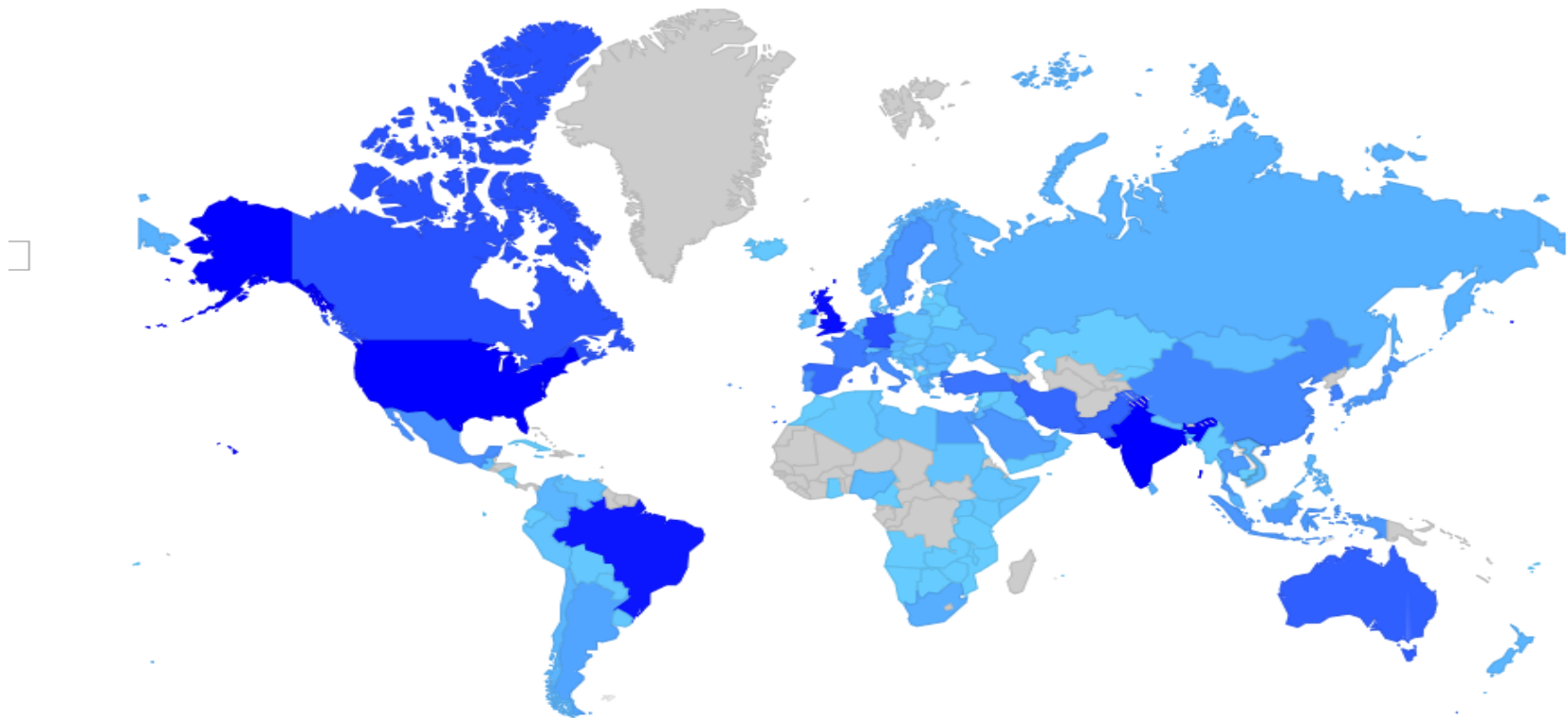
[Code \(website\)](#); [Pseudocode \(pdf\)](#)



Course textbook: AIMA (cont.)

1408 Schools Worldwide That Have Adopted AIMA

Artificial Intelligence: A Modern Approach has been adopted for use by at least **1408 schools** in **128 countries** or regions. Please let peter@norvig.com know of any we missed. Hover over a country in the map or word cloud below to see the number of adoptions. Each @ after a school name links to a course.



Education

- ▶ **AI:**
 - FPT University (2019)
 - Hanoi University of Science & Technology (2019)
 - University of Technology and Education Ho Chi Minh city (2019)
 - Industrial University of Ho Chi Minh City (2020)
 - ...

- ▶ **Data Science:**
 - Hanoi University of Science & Technology (2019)
 - Ho Chi Minh City University of Science (2020)
 - International University – VNU–HCM (2020)
 - University of Information Technology (2020)
 - Banking University HCM (2020)
 - ...



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