

3010

ARTIFICIAL INTELLIGENCE

Course Introduction

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Course objective 授業の目的

Introduction to some fundamental topics in Artificial Intelligence:

- ▶ AI Search (5 lectures)
- ▶ Reinforcement learning (1 lecture)
- ▶ Neural networks (2 lectures)

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Credit 単位

1 credit course

Grading 評価

Assignments, quizzes 宿題, 小テスト — 100%

Lectures will be given in English

講義は英語で行います

with occasional supplementary explanation in Japanese

必要なときには, 日本語で補足します

You may write assignments either in English or in Japanese

宿題のレポートは日本語でもかまいません

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Schedule

1	May	9	State space search
2		13	Dijkstra's shortest-path algorithm
3		15	Heuristic search
4		17	Adversarial search
5		21	Real-time heuristic search
6		23	Reinforcement learning
7		27	Perceptron/neural networks
8	June	3	Computation graphs/back propagation

Office hours オフィスアワー

- ▶ 15:10–16:40 on class days (except on Wednesday)

講義日の 15:10–16:40 (ただし水曜日は除く)

- ▶ Or, by appointment—send an email

それ以外の時間を希望する場合には, メールで相談してください

Office: A703

Email: shimbo@is.naist.jp

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Course web page 授業ウェブページ

<http://cl.naist.jp/lecture/2019/AI/>

All lecture slides, supplementary material, and assignments will be posted on this page

講義スライド・資料・宿題はこのページにアップロードします

You can also reach the above page from the Online Syllabus

オンラインシラバスにあるリンクからもアクセスできます

https://syllabus.naist.jp/subjects/preview_detail/229/

Reference Books 参考書

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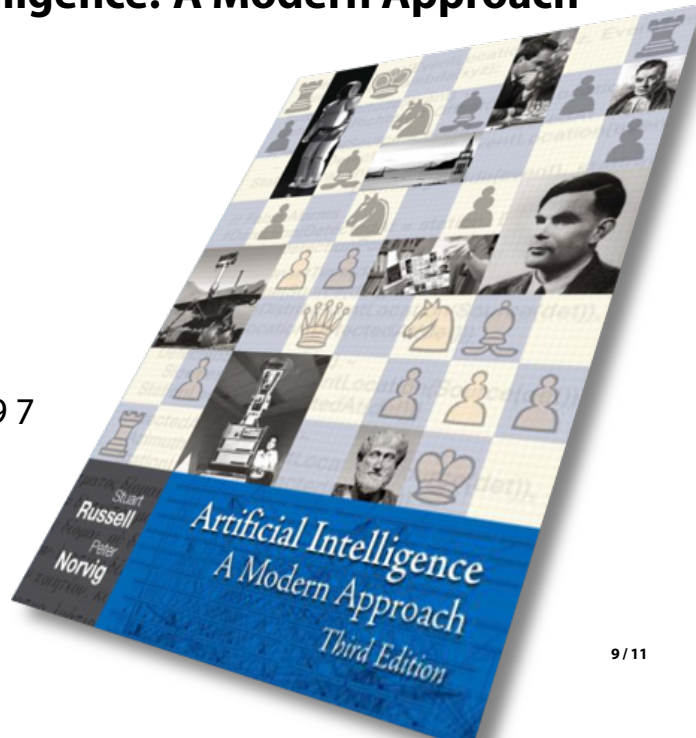
Artificial Intelligence: A Modern Approach

3rd Edition (2010)

Stuart Russell
Peter Norvig

Prentice Hall

ISBN 0 13 604259 7



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エージェントアプローチ人工知能第2版

Japanese Translation (of the 2nd edition)

Stuart Russell
Peter Norvig 著
古川康一監訳

共立出版 (2008)

ISBN 4 320 12215 1



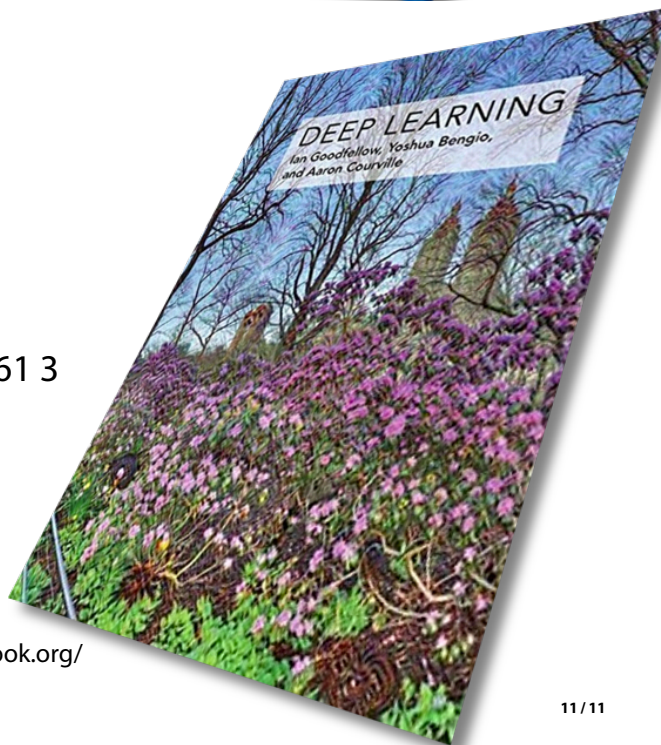
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Deep Learning

Ian Goodfellow
Yoshua Bengio
Aaron Courville

MIT Press (2016)

ISBN 978 0 262 03561 3



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Available online:

<http://www.deeplearningbook.org/>