

科目ナンバリング									
授業科目名 <英訳>		Logic I-E2 Logic I-E2				担当者所属 職名・氏名			
群	人文・社会科学科目群			分野(分類)	哲学・思想(基礎)			使用言語	英語
旧群	A群	単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）		
開講年度・ 開講期	2024・前期		曜時限	水1		配当学年	主として1・2年生	対象学生	全学向
【授業の概要・目的】									
<p>Logic is the study of arguments and actions taken based on the validity of those arguments.</p> <p>Students of all disciplines will learn how to transform natural language (English, Japanese, etc) into symbolic representations, and use those representations to assess the validity of arguments. The content of the course is applicable to both study and everyday thought processes.</p> <p>This course will cover arguments that can be described by sentential logic.</p> <p>Students will actively practice</p> <ol style="list-style-type: none"> (1) transforming English sentences into their symbolic representation, (2) assessing the representations logically, and (3) transforming the conclusion of logical arguments back to natural English. 									
【到達目標】									
<ol style="list-style-type: none"> (1) Students will be able to capture the intent/meaning of English language documents or statements and represent the meaning symbolically. (2) Students will be able to derive logical conclusions from a document, and detect examples of poor or incorrect logic. (3) Students will practice creating documents in natural English language based on logical argument, with emphasis on creating English that is easy to interpret. After completion of the course, students should acquire improved English expression skill. 									
【授業計画と内容】									
<p>(1~2) Course overview: what is an argument, and what makes an argument valid?</p> <p>(3~4) Classes of valid and incorrect arguments, sentence forms, logical connectives, conversion of simple sentences to symbols</p> <p>(5~6) Truth table definitions of AND, OR, and NOT, argument analysis by truth table, conditional and biconditional truth tables</p> <p>(7~9) Deductive logic rules, introduction to proofs</p> <p>(10~11) Deductive proofs using non-conditional rules</p> <p>(12~13) Proofs including conditional rules</p> <p>(14) Summary and review</p> <p>(15) Final examination</p>									
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Logic I-E2(2)

(16) Feedback
(Methods of feedback to be notified during class)

【履修要件】

特になし

【成績評価の方法・観点】

Attendance (25%), Quizzes (35%), final examination (40%).

【教科書】

使用しない

【参考書等】

(参考書)
Gustason 『Elementary Symbolic Logic』 (Waveland Press) ISBN:0-88133-412-X

【授業外学修 (予習・復習) 等】

Students are recommended to review prior lecture content for 2-3 hours per week outside of class.

【その他 (オフィスアワー等) 】