

SBWL Decision Sciences

Game Theory, Psychology, and Data

Univ.-Prof. Dr. Susann Fiedler Univ.-Prof. Dr. Ben Greiner

Institute for
Cognition and Behavior

<http://www.wu.ac.at/cobe>

cobe@wu.ac.at

Institute for
Markets and Strategy

<http://www.wu.ac.at/ims>

ims@wu.ac.at



What is Decision Sciences about?



Psychology



Project



Data

Decision
Science



Strategy



The goal is to
enable you to
make

strategic,

**psychological
reasonable,**

evidence-based

**managerial
decisions.**

Decision
Science

Strategy

Data

Psychology

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Game
Theory

Psychology



Data
analysis



Game
Theory

Psychology



Data
analysis



Game
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Psychology



Data
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Game
Theory

Psychology



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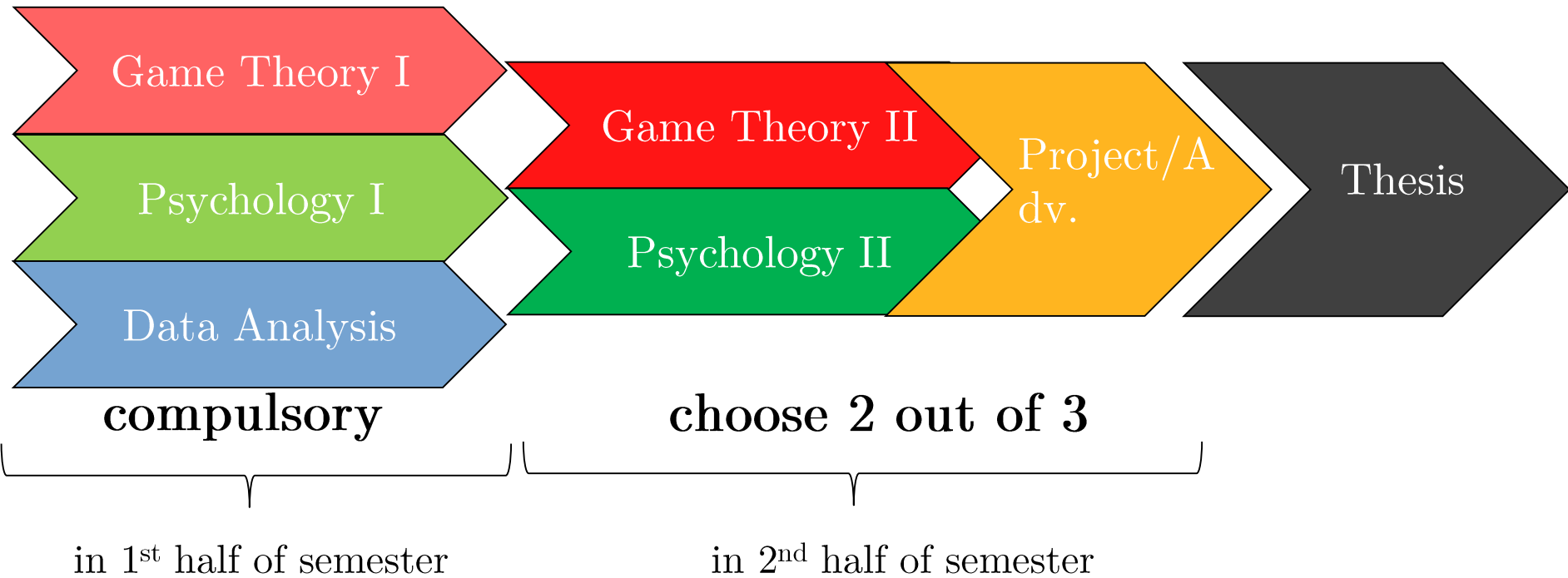
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How do we teach Decision Sciences?



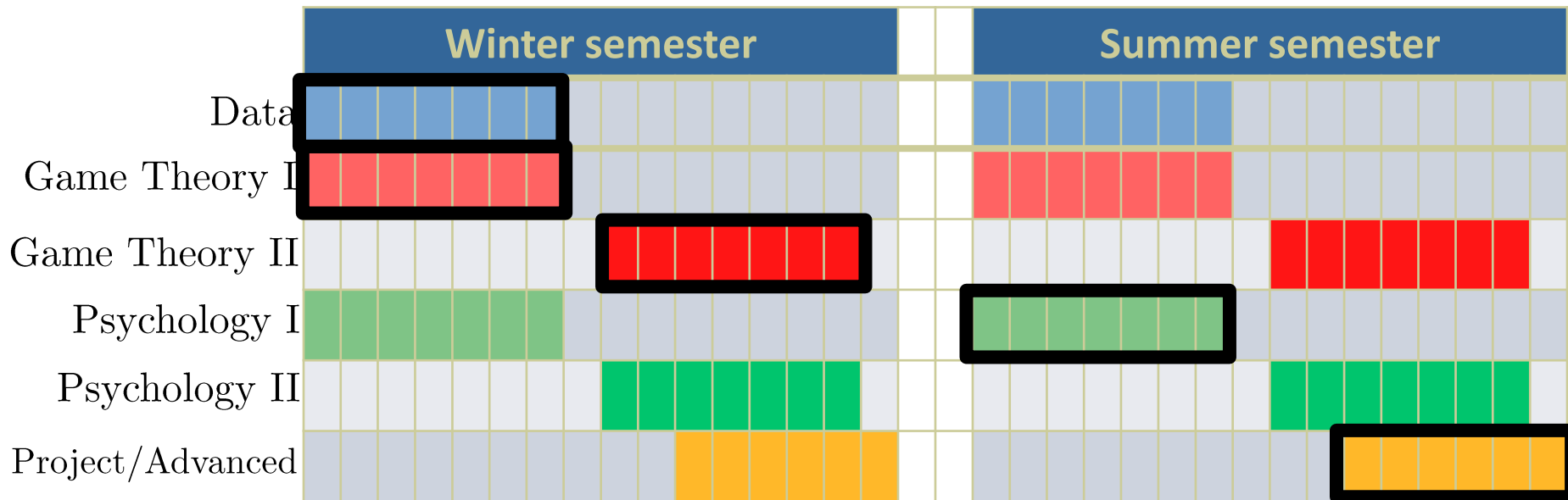
Five courses



All courses offered each semester

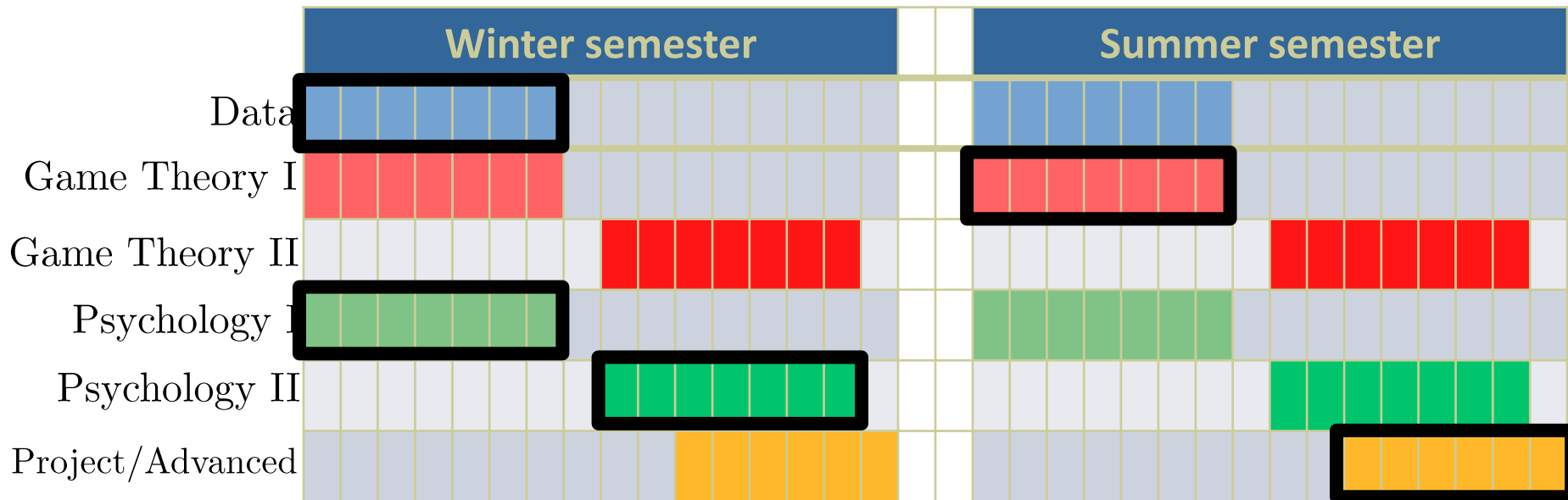
Five courses

- Compulsory: Data, Game Theory I, Psychology I
- Then:
 - Game Theory II + Project/Advanced, or
 - Psychology II + Project/Advanced, or
 - Game Theory II + Psychology II



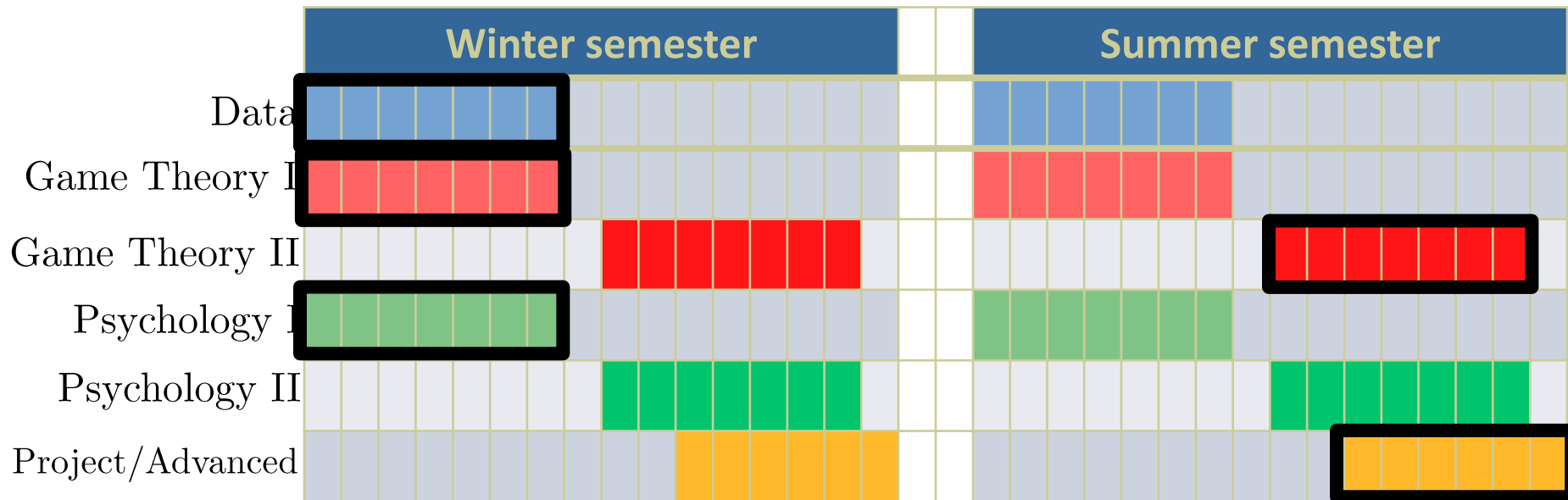
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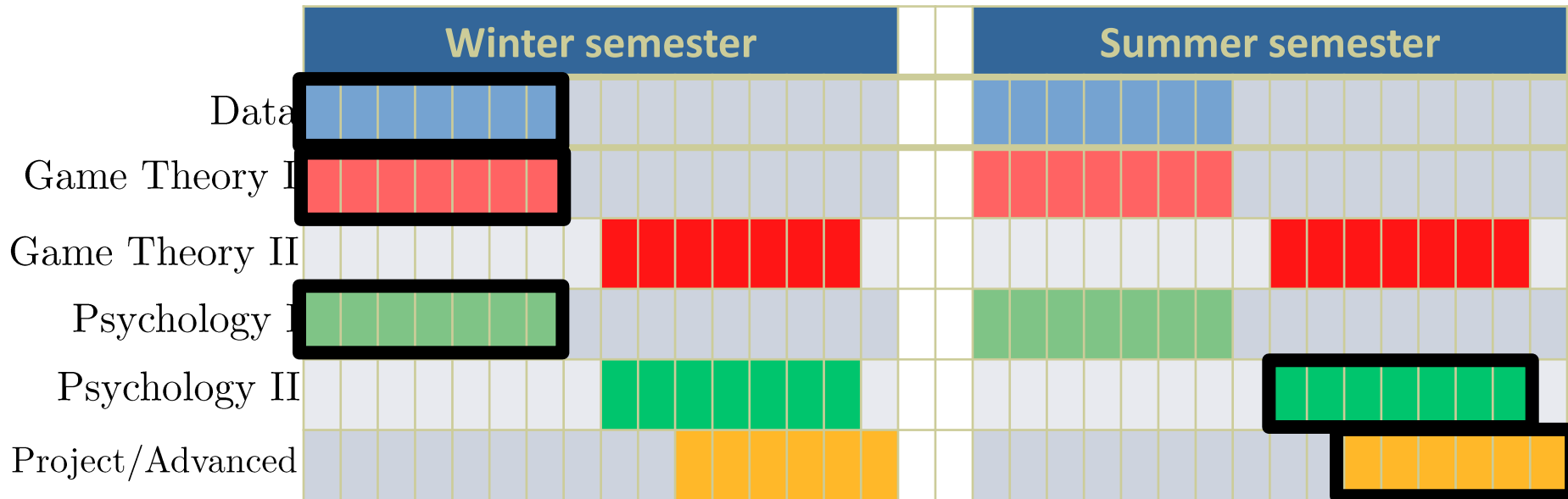
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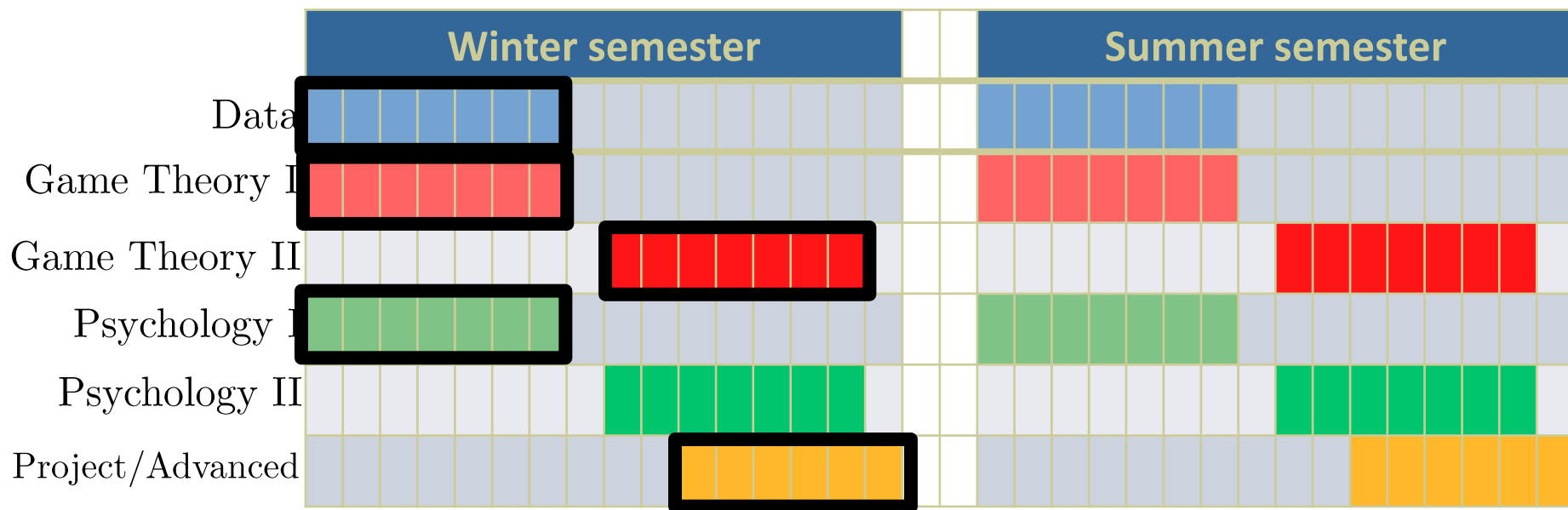
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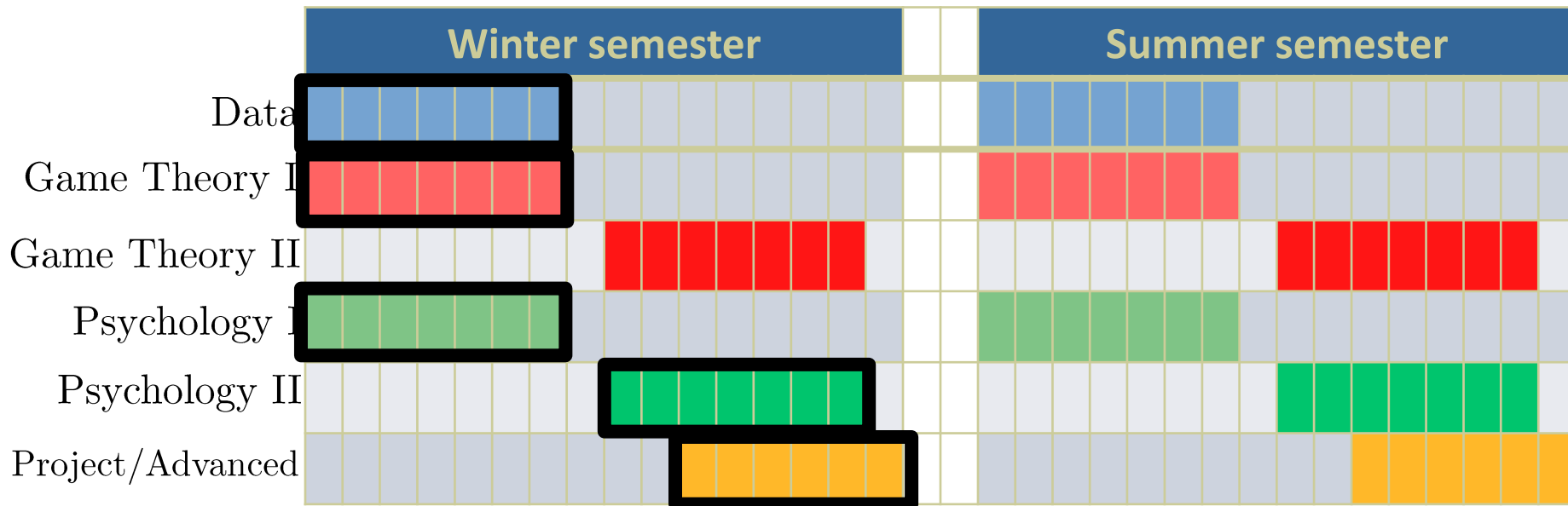
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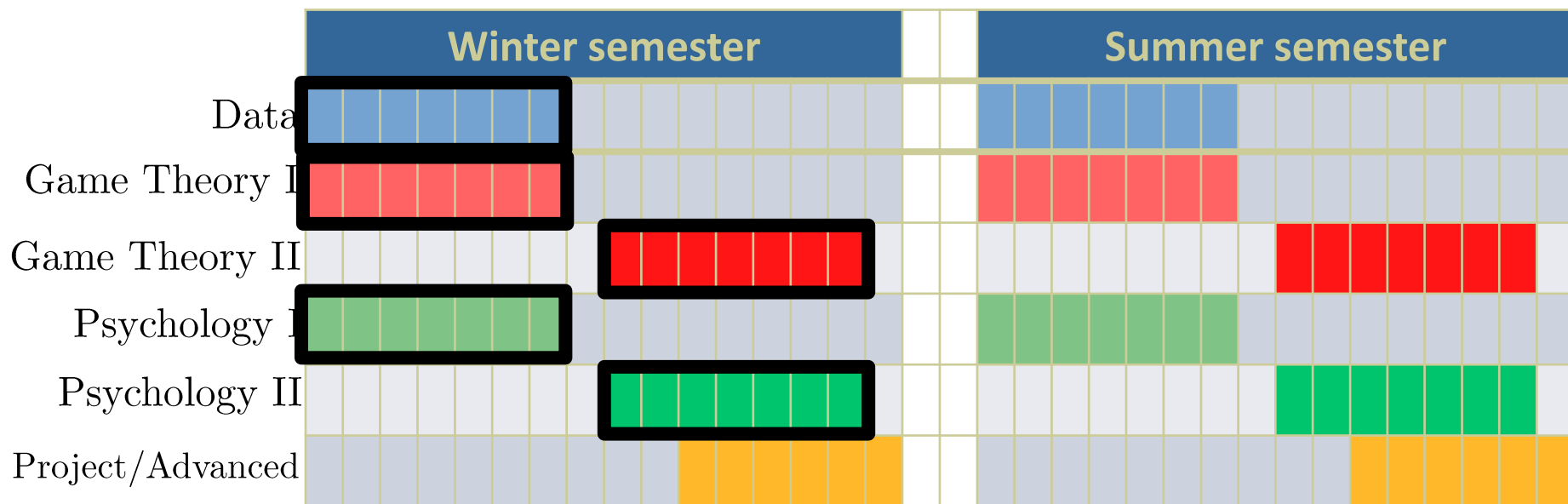
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Psychology



Project



Data

Decision
Science



Strategy



How do we teach **game theory**?

Psychology

Decision
Science

Project

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Data

Strategy



How do we teach **game theory**?

Game Theory I



How do we teach **game theory**?

Game Theory II

Bargaining & negotiations

Competition & collusion

Basics of game theory

Finite & infinite horizon

Coordination problems



Strategy

Timing & commitment

Reputation

Signaling & cheap talk

Herding & information cascades

Imperfect information

Advanced concepts of game theory

All kinds of auctions

How do we teach **game theory**?

- **Decision experiments**

- with business-like decision situations in last hour of class

- **Homework and self-learning**

- (guided) theoretical and data analysis of the games played

- **Lectures and discussion**

- interactive (cold-call-supported) in-depth discussion of the games and data
- necessary theory and game-theoretic tools to fully understand these problems



Psychology



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Psychology

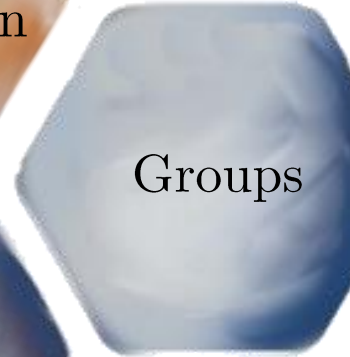
How do we
teach **business
psychology I** ?



Motivation
& incentives



Conflict &
Cooperation



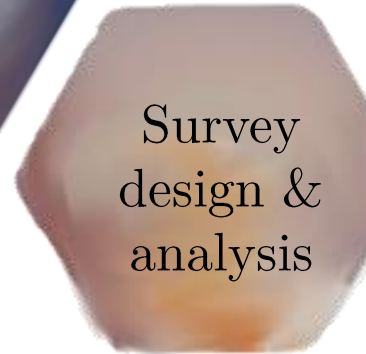
Groups



Attitudes



Learning



Survey
design &
analysis



Psychology

Conflict & Cooperation

Motivation & incentives

Groups

Attitudes

Survey design & analysis

Learning

Leadership & Power

Trust & cooperation

Emotions & norms

Change process

How do we
teach **business
psychology II** ?

How do we teach **business psychology**?

- **Lecture**

- Introduction of **basic concepts in psychology** with many examples from the organizational and managerial context

- **In class decision experiments & case studies**

- Application of the introduced constructs & mechanisms

- **Take home quizzes**

- Consolidation of the newly learned constructs



Psychology



Project



Data

Decision
Science



Strategy





How do we teach **data analysis**?

How do we teach **data analysis**?

- **Lecture**
 - Introduction of **analysis methods** with many examples and Stata code
- **Application**
 - Use statistics software, **play** with data
- **Review**
 - Presentation and review of results
 - Typical mistakes
 - Further details on analysis method

Project Seminar



- Structure a problem
- Team work
- Presentations
- Final report

Project Seminar: Project Partners



**Raiffeisen Bank
International**



INSTITUT FÜR HÖHERE STUDIEN
INSTITUTE FOR ADVANCED STUDIES
Vienna



HUBJECT



Thesis conditions

- WU: StEOP, CBK, and „Basics of scientific research“
- **Institutes:**
 - SBWL „Decisions Sciences“
 - Capacity
 - Supervisor
 - Quality proposal

Where does the
SBWL Decision Sciences
lead to?

Enlightenment



A low-angle, upward-looking photograph of several modern skyscrapers against a twilight sky. The buildings are dark with many windows illuminated from within, creating a grid of light points. The sky is a pale, dusky blue with some light clouds. The word "Opportunities" is written in a red, serif font across the upper middle of the image.

Opportunities

Answer 2: A great career in almost **any** kind of job

Risk analysis and management

M&A / CF strategic due diligence

Supply Chain Management

Processes and negotiations

Forensic analysis

HR design of incentive systems

Data analytics

Key project management

How do I get in?



How do I get in?

We are looking for **50** students who are **clever, creative, and analytical**.

Preconditions: STEOP: Intro
BWL+ VWL, Math, CBK: Stats

→ LPIS-Registration for AG “Access to Specialization: Decision Sciences”)

→ and application via institute website

– Ranking via GPA, with higher weight on intro math and stats courses



The Team



Questions?

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