

A Beginner's Guide to Bridge

Course Leader:

Roger Lee
rogerlee@caltech.edu

Faculty Sponsor:

Christopher Hitchcock
cricky@caltech.edu

This course serves as an introduction to one of the world's most popular card games, bridge. Bridge is a unique game, combining strategic complexity on par with chess and other "deep" games with elements of chance and partnership cooperation. The course will focus primarily on basic strategy, beginning with a discussion of strategies of playing a hand and then moving to modern standard bidding methods. Rather than relying on purely memorization in discussion of standard methods and conventions, however, probability and combinatorial theory will be used to help arrive at and justify these approaches. In addition, the game's larger impact will be discussed, including historical aspects, challenges in the context of artificial intelligence, and ways in which the notions of the "language" of bridge can be expanded.

Recommended Background: No prior experience with bridge or any other card game is required. Some mechanics of bridge are similar to those seen in other card games, but the actual mechanics of the game will be covered entirely in the first lecture, after which everyone should be on the same page. No specific formal mathematical or statistical training is required, but minimal comfort with basic statistical and probabilistic concepts (such as independence and expected value) is desired. In terms of being overqualified, students with prior bridge experience may find the class valuable if they have no real concept of standard bidding methods and have not been instructed on basic play techniques (for instance, if you only play with your family at an annual reunion, or something on that order, you are probably not too advanced for this class). If you are unsure about whether taking the class is a good idea get in touch with me as soon as possible.

Course Structure: The class meets for 90 minutes once a week. We will lecture for roughly 45 minutes each week; then, for the remaining time students will play hands which emphasize themes and skills covered in lecture. Students will also be expected to read on a selected topic every week.

"Textbook": The class "texts" are two instructional bridge programs—*Learn to Play Bridge* and *Learn to Play Bridge 2*, both by Fred Gitelman. These programs are available for free download at <http://www.acbl.org/learn/index.php>. Click on "Download it Today!" and be sure to get both programs. You don't need to give your email address.

Unfortunately these programs are PC only. If you don't have access to a PC on which you can install software, let me know and we can attempt to make arrangements.

Schedule:

We will have two sets of slides for each week...the "lecture," which we will post beforehand, and the practice hands, which we will post after you've tried them in class. LTPB and LTPB2 refer to chapters from Learn to Play Bridge 1 and 2 respectively.

Week 1: Course Intro, Game Rules, Introduction to Play of the Hand

LTPB: Introduction to this Program, Introduction to Bridge, Taking Tricks

Week 2: Play of the Hand Continued

LTPB: More on Taking Tricks, The Trump Suit, Planning the Play, and Basic Theory behind contracts.

Week 3: Bidding 1

LTPB: Introduction to Bidding, More on Bidding

Week 4: Bidding 2

LTPB: More on Bidding

LTPB2: Responding to 1NT and 2NT Revisited, Conventions for Competitive Auctions

Week 5: Practice with Bidding and Playing

LTPB: Review course material

Week 6: Defense

LTPB2: The Case for the Defense, the Tricks of the Trade

Week 7: Additional Play and Defense Topics

LTPB2: Signaling on Defense, Suit Combinations, Trump Management

Week 8: Club/Tournament Bridge

Duplicate strategy, vulnerability, scoring systems/strategy

Week 9: Conventions and Gadgetry

Introduction to Artificial Bidding

Week 10: Competitive Bidding

Competitive judgment, sacrificing, high-level decisions