Stat 198 | Poker Theory & Fundamentals | Fall 2025

Lecture: Wed & Fri 4-6pm, Birge 50 | **Credit Hours:** 2 Units | **Faculty Sponsor:** Everett Wetchler

Head of Decal: Maysa Barandish	maysabarandish@berkeley.edu	**Office Hours:** By Appointment
Instructor: Jones Dickerson	jones.dickerson@berkeley.edu	**Office Hours:** By Appointment
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Course Description:

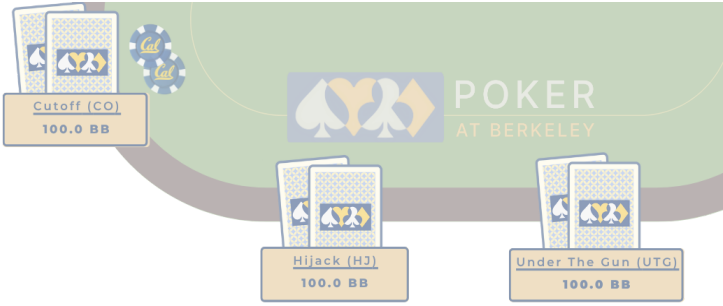
This course introduces the fundamentals of poker with an emphasis on strategic thinking and decision-making, open to students of all experience levels. While basic rules will be covered quickly, most of the course focuses on higher-level concepts in **6-max No-Limit Texas Hold'em—the most widely played form of poker today.** Students will examine each stage of a hand and explore the mathematics, heuristics, and structured reasoning that strong players use, with some attention to psychological factors such as live reads and behavioral patterns. Beyond poker, these concepts develop analytical skills relevant to statistics, game theory, economics, finance, and investing. While the course is centered on poker, the approach to thinking it develops remains valuable far beyond the table. The DeCal was originally started in 2003 by UC Berkeley undergraduate *David Daneshgar*, who went on to win a WSOP bracelet in 2008.

Course Structure:

This course meets twice a week, with each class lasting 2 hours and divided into two parts. The first consists of approximately **60 minutes of lecture** covering concepts in poker theory and strategic decision-making. The second is a **60-minute guided playing session** using play money, giving students an opportunity to apply the material from the lecture in a practical setting.

A Note on Playing Sessions:

Player results from in-class sessions are tracked throughout the course, with a class leaderboard updated weekly based on PnL win rates. At the end of the semester, the top performer on the leaderboard will earn a guaranteed spot on Berkeley's Intercollegiate Poker Association (IPA) team for the following term. The IPA is a national collegiate No-Limit Hold'em league with 37 university teams, where schools compete head-to-head against one another.



Course Schedule: *Subject to change*

week	topic/lecture		reading (due at beginning of next class)	assignment (due at beginning of next class)
1	**Wed 9/10** - Infosession	**Thu 9/11 - Applications Due**	**N/A**	**N/A**
2	**Wed 9/17** - Course Structure: Rules of Play, Expected Value, and Variance	**Fri 9/19** - Introduction to Game Theory Optimal (GTO) Play and Hand Ranges	*Play Optimal Poker* (Brokos), Ch. 1–2	**Homework 1:** *Rules of Poker*
3	**Wed 9/24** - Preflop Fundamentals: Open Raising, Big Blind Defense, and Constructing Ranges	**Fri 9/26** - Preflop Strategy II: Combinatorics and Relative vs. Absolute Hand Strength	*Play Optimal Poker* (Brokos), Ch. 3–4	**Homework 2:** *Open-Raising*
4	**Wed 10/1** - Advanced Preflop: Pot Odds, Equity Realization, Combo/Draw Math, Isolation Plays	**Fri 10/3** - Advanced Preflop II: 3-Betting, 4-Betting, Flatting, Squeezing, and Exploitative Adjustments	*Play Optimal Poker* (Brokos), Ch. 5–6	**Homework 3:** *Advanced Preflop*
5	**Wed 10/8** - Flop Play I: Made Hands vs. Draws, Board Texture, and Calculating Equity	**Fri 10/10** - Flop Play II: Continuation Betting (IP vs. OOP), Range Advantage, and Sizing Strategies	*Play Optimal Poker* (Brokos), Ch. 7–8	**Homework 4:** *Pot Odds & Draw Calculations*
6	**Wed 10/15** - Betting the Flop: Continuation Bets, Bet Sizing, Pot Control, and Raising Dynamics	**Fri 10/17** - Flop Defense: Non-Aggressor Plays, Hero vs. Opener Scenarios	*Play Optimal Poker 2* (Brokos), Ch. 1–3	**Homework 5:** *C-Betting & Sizing*
7	**Wed 10/22** - Turn Play I: Delayed Continuation Bets, Probing the Turn, and Range Elasticity	**Fri 10/24** - Turn Play II: Thin vs. Thick Value Betting, Range Adjustments, and Advanced Elasticity Concepts	*Play Optimal Poker 2* (Brokos), Ch. 4–5	**Homework 6:** *The Turn*

8	**Wed 10/29** - River Play I: Minimum Defense Frequency, Bluffing the River, and Bet Sizing Frameworks	**Fri 10/31** - River Play II: Multi-Street Bluffing and Constructing Bluffing Frequencies	*Play Optimal Poker 2* (Brokos), Ch. 6–8	**Homework 7:** *The River*
9	**Wed 11/5** - Hand Analysis I: Street-by-Street Decision Tracking and Adjusting Ranges	**Fri 11/7** - Hand Analysis II: Deep Stack Play, Revisiting Flop/Turn Defense, and River Decision Making	*Play Optimal Poker 2* (Brokos), Ch. 9–11	**Homework 8:** *Hand Analysis*
10	**Wed 11/12** - Rake Effects, Session Dynamics, and Special Betting Lines (Donk Bets, Unusual Lines)	**Fri 11/14** - Common Turn/River Lines: Double Check-Raising, x-x Flop Dynamics, and River Give-Ups	*Modern Poker Theory* (Acevedo), Ch. 14	**Homework 9:** *Common Lines*
11	**Wed 11/19** - MTT Strategy	**Fri 11/21** - MTT Strategy	*Modern Poker Theory* (Acevedo), Ch. 6–9	**Homework 10:** *Exploits*
12	**Thanksgiving Break: 11/26 - 11/28**		*Reading Poker Tells* (Elwood), Ch. 1–2	**Final Project:** *Checkpoint*
13	**Wed 12/3** - Modern Applications: Solvers, Exploitative Adjustments, Live Reads, Tells, and Node-Locking	**Fri 12/5** – Final Lecture: Course Wrap-Up, Reflection, and Poker Beyond the Table (Community & Culture)	*Reading Poker Tells* (Elwood), Ch. 3	**Final Project Due:** Hand History Analysis
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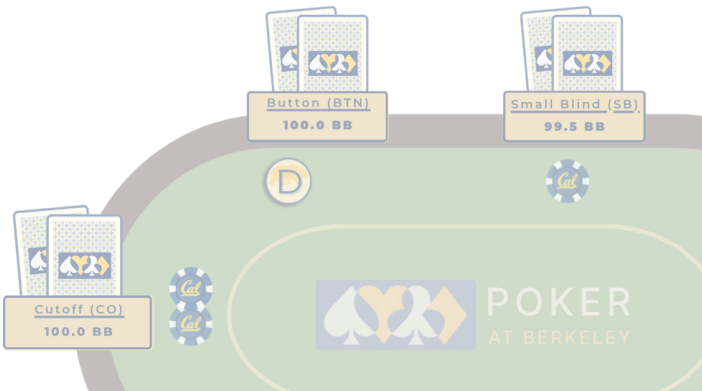

Prerequisites:

There are no official prerequisites for this course. However, prior completion of an introductory probability or statistics course (such as **Stat 20/21/88,** or **UGBA 88**) is recommended, as many fundamental statistical concepts will be discussed. Students without this background are still welcome to enroll but should be aware that certain topics may be more challenging without prior exposure.

Learning Outcomes:

By the end of this course, students will be able to:

- ★ Demonstrate knowledge of both foundational and advanced poker concepts.
- ★ Apply poker strategy to play a fundamentally sound game.
- ★ Think critically about hands using structured logic and extend that reasoning to other games and decision-making contexts.
- ★ Develop an understanding of game-theory-optimal (GTO) play and when to adjust with exploitative strategies.

Course Policies

General Disclaimer

This course uses **play money only**—no real money is wagered at any time. If the topic of betting raises concerns for you (e.g., ethical or personal), please feel free to speak with us privately. Our focus is on the **probability, statistics, and decision-making** behind poker, not gambling.

Course Materials and Slide Access

All lecture slides will be made available at least 24 hours before each class via our Discord/Canvas. Review them beforehand if possible, and use them to prepare questions or review what's covered in class.

Spotify Playlist during Playing Sessions

We use a collaborative Spotify playlist during playing sessions. You're welcome to add your favorite tracks:
https://open.spotify.com/playlist/5X6O7boB0RcGUEEQWdZ3SE?si=ccgduGV3R1miDqdZJQkfOw

Grading and Requirements

To receive a "P" (Pass) for this course, students must complete the Final Project and achieve an overall score of **70% or higher.**

Students who consistently engage with the course and complete assignments should have no difficulty meeting this standard. If you require accommodations or experience extenuating circumstances, please contact the course staff—we are committed to being flexible and ensuring that grades do not become an obstacle to learning.

Attendance – 25%

Attendance is tracked using an **Attendance Deck system**. At the end of each class, students will scan a unique QR code assigned to a playing card in a deck to record their attendance.

- After three unexcused absences, each additional absence will result in a 3% reduction to the final grade.

Playing Session Attendance – 15%

The second portion of each class involves guided play using play money on PokerNow, where students will play through our club account. Participation in these sessions is tracked directly through the platform, which records hand histories and player activity. **These logs are used both to measure engagement and to help identify areas for improvement. Each week we will release leaderboard standings for PnL, and the top performer will be guaranteed a spot on Berkeley"s Intercollegiate Poker Association team.**

- Attending and actively participating in at least 75% of these sessions earns full credit (15%).
- Each missed session beyond that threshold will result in a 0.5% deduction from the final grade.

Homework – 25%

Weekly assignments (generally under one hour to complete) are designed to reinforce key concepts.

- Graded on effort and completion; sample solutions will be reviewed in the following class.
- Late submissions (up to one week late) are accepted for 50% credit.

Final Project – 35%

The final project requires students to analyze hands they played during class sessions. As with homework, grading will be based on effort and completeness, with guidance provided on what constitutes thorough analysis. Previous semesters' student submissions will be reviewed in class, and a grading outline will be provided to clarify expectations. Many of the examples and hand

reviews covered during lectures throughout the semester will closely resemble the structure and style expected for the final project.

Resources (Recommended)

If you're looking to deepen your understanding or study outside class, these are our top picks.

Range Equity Calculator

- Open Poker Tools: openpokertools.com

GTO Solvers

- GTO Wizard, the market leader in solver tools. Preflop tools are free, full solver access optional: gtowizard.com

Forums for Feedback & Discussion:

- Two Plus Two Poker Forums – largest poker strategy community: forumserver.twoplustwo.com
- r/poker on Reddit – post hands, get feedback, join Discord groups: reddit.com/r/poker/

Youtube Channels:

- Savant Poker Coaching: youtube.com/@savantpoker
- Hungry Horse Poker: youtube.com/@hungryhorsepoker

Podcasts & Blogs:

- Red Chip Poker Podcast – free, concise poker coaching: redchippoker.com/podcast
- Upswing Blog – technical articles and chart analysis: upswingpoker.com/blog/

Recommended Texts:

- The Theory of Poker (Sklansky)
- The Mathematics of Poker (Chen & Ankenman)
- Modern Poker Theory (Acevado)
- Verbal Poker Tells & Exploiting Poker Tells (Elwood)

Choosing Your Tools

If you're still building fundamentals, the preflop charts linked in Upswing or PocketSolver offer a reliable starting point without committing to full solver training. GTO solvers like GTO Wizard are powerful for structured study, but best used after gaining comfort with basics. Using structured ranges and practicing decision trees first will give you better results in the long run.