

University of Florida College of Law
Taxation of Financial Instruments

LAW7931

Two credits

Spring 2019

Professor Lawrence Lokken

Course Syllabus

As of 17 December 2018

This course is about U.S. taxation of financial instruments, including debt instruments, options, futures, forwards, swaps, and other derivatives. Classes meet only for the first seven weeks of the semester, beginning on 9 January and ending on 21 February. The final examination for the course will be given on the weekend of 23–24 February 2019. Each student must also complete a Midterm Assignment, which will be due 4 February 2019.

Roughly the half of the course is about debt instruments, beginning with an examination of interest and the time value of money and continuing with the tax consequences of issuing or holding a debt instrument that is issued or purchased at a price differing from the instrument's face value. For example, the issuer of a \$1,000 zero coupon bond (a debt instrument on which the issuer pays no interest) receives less than \$1,000 on issuing the bond because investors have to be given a reason to buy this instrument, rather than one on which interest is paid. For example, if the bond's term is 5 years, and the market rate of interest is 5 percent, compounded semiannually, an investor will pay \$781.20 for the bond at original issue. In the tax law, the difference (\$218.80 in the example) is called original issue discount, and it accrues over the instrument's term, and each accrual is treated as interest income for the holder and interest expense for the issuer.

The course also briefly covers debt securitizations. In a securitization, an organizer (e.g., an investment bank) creates a special purpose entity and transfers many mortgages or other debt instruments to the entity, which capitalizes itself by issuing debt instruments with varying rights and priorities and a thin slice of equity. All payments on the securitized debt are transmitted to the securitization entity, which distributes its cash receipts to the holders of the debt instruments that it issued. The equity holder gets whatever is left, if anything, after the entity has paid all of the debt instruments. Debt securitizations began with residential mortgages several decades ago, but other forms of debt, including commercial loans, car loans, student loans, loans financing private equity transactions, and credit card debt, have been securitized more recently. Debt instruments issued by securitization entities (e.g., mortgage-backed securities) played a prominent role in the 2007–2009 financial crisis.

The next topic will be the U.S. taxation of transactions in “virtual” and “crypto” currencies, the most well-known of which is Bitcoin. What are the U.S. tax consequences when a U.S. person “mines” a Bitcoin, buys or sells a Bitcoin, or pays or receives Bitcoin as the price in a purchase or sale or payment of a debt? What means does the IRS have to enforce tax liabilities resulting from these transactions? We will spend one class period exploring these questions.

The other major topic of the course is derivatives. A derivative is a financial instrument whose value depends on the value of other property (the underlying), a reference rate (e.g., an interest rate), or an index (e.g., a stock index). Options are a common type of derivative. Assume Wendy grants Hal an option to purchase 100 shares of *X* Corp. six months after the option is granted (written) for \$10 per share; Hal (the holder) pays Wendy (the writer) \$15 for the option when it is written (the option premium). The option (a call) has a value, even if *X* shares trade at \$10 or less when it is written, because it gives Wendy the opportunity to capture any amount by which the stock's value may exceed \$10 on the option exercise date. (Robert C. Merton and Myron S. Scholes won the Nobel prize in economics in 1997 for their work in quantifying this value; the process of measuring the value of options is often called the Black-Scholes Model.) The option is a derivative because its value, when granted and thereafter, depends on the value of *X* stock. Other types of derivatives include:

1. Futures and forwards, which are essentially contracts to buy and sell property, typically a fungible commodity, currency, or financial instrument, for a designated price at a designated time in the future. When traded on an exchange, such a contract is known as a “futures contract”; when made outside an exchange, in an over-the-counter market, such a contract is a “forward contract.”
2. Swaps, which are bilateral contracts to exchange payments, computed with reference to a specified rate or index, at set intervals over a stipulated period of time. An example is an interest rate swap—an agreement by which *A* agrees to make quarterly payments to *B* equal to interest at 5 percent on a notional principal amount, such as \$10 million; and *B* agrees to make contemporaneous payments to *A* equal to interest on the same notional principal at a variable rate, such as the 90-day U.S. dollar LIBOR (London Inter-Bank Offered Rate). No one pays or receives the notional principal amount (\$1 million in the example).

Investment banks have also developed contingent-payment debt instruments, which, in essence, typically consist of a debt instrument with a derivative embedded within it. For example, a company might issue a \$1,000 note, payable in three-years without interest, but the amount payable on maturity is \$1,000, plus or minus the product of \$1,000 and the percentage change in the S&P 500 (a stock index) over the note's term. The essence of this instrument is a zero coupon bond, coupled with a cash-settled forward contract on the S&P 500.

Over the last several decades, derivatives have become a large presence in financial markets. Exchanges specializing in derivative transactions have grown to be among the largest securities exchanges in the world. Daily trading volumes in derivative instruments are in the hundreds of billions of dollars. One type of swap agreement— credit default swaps—figured prominently in the 2007–2008 financial crisis.

Derivatives are used for many purposes. For example, a business incurring a liability in a foreign currency (e.g., for a purchase of goods) may not want to add a currency exchange risk to the risks ordinarily arising in its business; it can use a derivative (e.g., a currency forward) to eliminate the currency risk. During a period when the stock market seems to be going nowhere, a mutual fund may use derivatives to enhance its otherwise unexciting yield (e.g., by writing calls

on stocks it owns). A gambler finding the highest stakes available in Las Vegas casinos to be too modest can find everything he or she may desire in derivatives markets. The bedrock of these markets is, however, companies and investors using derivatives to manage financial risk, not to gamble.

The course focuses on financial aspects of derivatives, as well as their tax consequences. It is assumed that students have no prior knowledge of or background in the financial or tax aspects of derivatives. For example, the coverage of options will begin with a discussion of what options are, what people use them for, how they are traded, etc. However, a willingness to tackle rather complex financial abstractions is essential to success in the course.

The course makes extensive use of TWEN. On the TWEN website for the class, you will find all of the assignments and problems for the course and various items of course materials. Before the first class, each student should register for the course on TWEN and download at least the first problem set and the materials assigned for the first classes.

To aid the study of financial aspects, the assignments include a series of PowerPoint files by John C. Hull, intended for use with his book, *Options, Futures, and Other Derivatives* (Pearson 10th ed. 2018). You can download the files for free at <http://www-2.rotman.utoronto.ca/~hull/ofodslides/>. The files are also posted on the TWEN website for this course. The files are referred to in the assignments as Hull slides. Only some of the files are assigned. You are welcome to view them all, but many of them are much more advanced than the level of coverage in this course. You can purchase an e-copy of the Hull book for about \$130, but it is not needed for the course.

The reading assignments include portions of Boris I Bittker & Lawrence Lokken, *Federal Taxation of Income, Estates & Gifts (B&L)*. This treatise may be found online on WestLaw and CheckPoint. A hardcopy of the treatise is available in the law library

Although you are not required to purchase any books for the course, you must either have a financial calculator with a capability to compute present values or have (and be able to use) a computer program (e.g., Excel) that can compute present values. Two relatively inexpensive calculators that will serve this purpose are the HP 10bII, which is produced by Hewlett-Packard, and the Texas Instruments BAI Plus. Both of them cost about \$30 for basic models (which is all you will need) and are available both online and at bricks-and-mortar outlets. Both of these calculators can also be purchased as smartphone apps. For the iPhone, the HP 10bII app costs \$5.99, and the BAI Plus app costs \$14.99. The instructor will be using the BAI Plus app. If you are not fluent with the use of financial calculators, you might do the same.

You must also have current volumes of the Internal Revenue Code and Treasury Regulations. "Selected Federal Taxation: Statutes and Regulations," published by Thompson/West, or the corresponding CCH publication, will serve for this purpose, but must occasionally be supplemented with electronic downloads.

The classes will consist almost entirely of discussions of problems. Students should expect to spend, on average, approximately two hours preparing for every hour of class. Students are expected to attend all classes, but no attendance record will be kept.

The assignments below for classes more than two weeks beyond the start of classes are tentative. The syllabus will be amended periodically during the semester to correlate it with our actual progress. Also, some of the problems for Units after Unit I may be changed before we cover them in class. You should check TWEN a day or so before each class to make sure that you have the most recent version of the problems to be covered in that class. Each version of the problems will have a date at the top.

On completing the course, a student should have a basic understanding of the financial concepts underlying the principal forms of derivatives and should, using the Internal Revenue Code, Treasury regulations, and other authorities, be able to solve practical problems of the taxation of financial instruments.

Grades for the course will be based on a Midterm Assignment due on February 4, and a final exam. The Midterm Assignment, which is available on TWEN, will count for 30 percent of the grade, and the final exam will count for 70 percent.¹

The final exam will be a six-hour take home examination (nine hours for students entitled to language accommodation). You must take the exam on either Saturday, 23 February, or Sunday, 24 February.

Date Assignment

January 9 Unit I: Introduction

 Unit II: Interest and the Time Value of Money

 A. Interest, OID, and Dispositions of Debt Instruments

 Problems 1, 2

¹ The following chart describes the specific letter grade/grade point equivalent in place:

Letter Grade	Point Equivalent
A (Excellent)	4.0
A-	3.67
B+	3.33
B	3.0
B-	2.67
C+	2.33
C (Satisfactory)	2.0
C-	1.67
D+	1.33
D (Poor)	1.0
D-	0.67
E (Failure)	0.0

The law school grading policy is available at:
<http://www.law.ufl.edu/student-affairs/current-students/academic-policies#9>.

- January 10 Unit II: Interest and the Time Value of Money
 A. Interest, OID, and Dispositions of Debt Instruments
 Problems 3–8
- January 16 Unit II: Interest and the Time Value of Money
 A. Interest, OID, and Dispositions of Debt Instruments
 Problems 9–15
- January 17 Unit II: Interest and the Time Value of Money
 B. Market Discount
 Problem 1–4
- January 23 Unit II: Interest and the Time Value of Money
 C. Short-Term Obligations
 D. Stripped Bonds
- January 24 Unit II: Interest and the Time Value of Money
 E. Debt Instruments Received in Exchange for Property
 F. Below-Market Loans
- January 30 Unit II: Interest and the Time Value of Money
 G. Debt Securitizations
- January 31 Unit III: Short Sales and Related Issues
- February 6 Unit IV: Options
- February 7 Unit V: Futures and Forward Contracts
- February 13 Unit VI: Notional Principal Contracts (Swaps)
- February 14 Unit VI: Notional Principal Contracts (Swaps)
- February 20 Unit VII: Contingent Payment Debt Instruments, Wash Sales, and Straddles
- February 21 Unit VIII: Hedging Transactions

The instructor's office hours are Wednesdays and Thursdays, noon to 1 p.m. The instructor's email address is lokken@ufl.edu and office is Room 312J.

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

Students requesting accommodation for disabilities must first register with the Dean of

Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Dean Rachel Inman when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.