

- The Financial Trading System (FTS) is a state-of-the art suite of educational software tools and teaching material for high school and university courses in finance, accounting, and economics.
- FTS includes a virtual portfolio management system as well as an interactive trading simulation with price discovery, letting students experience both real-world financial markets and also the dynamics of a dealing room.
- FTS provides the most complete solution available today for financial education. No other
 systems provide any analytical tools or algorithmic trading tools that are critical in today's
 financial markets. No one provides both a position management simulation and a simulation
 with price discovery. No one provides modules that let student dig deeper and develop their
 practical and analytical skills.
- Three questions to ask:
 - Do you want a trading simulation with price discovery as well as a virtual portfolio system and supporting analytical modules for one low price?
 - Do you want students to learn how analytics and quantitative techniques are applied in portfolio management?
 - Do you want students to build their conceptual, modeling, and analytical skills?
- The central difference between FTS and other systems is our focus on practical, analytical, and modeling skills. For example, both our simulations allow students to develop algorithmic trading strategies using VBA which are then monitored and executed in real time. No other educational simulation has this capability.
- Our academic support is provided by professors who have taught with the system at top business schools, is used by schools that have trading rooms and by many schools that do not, and is deployed in over 20 countries.

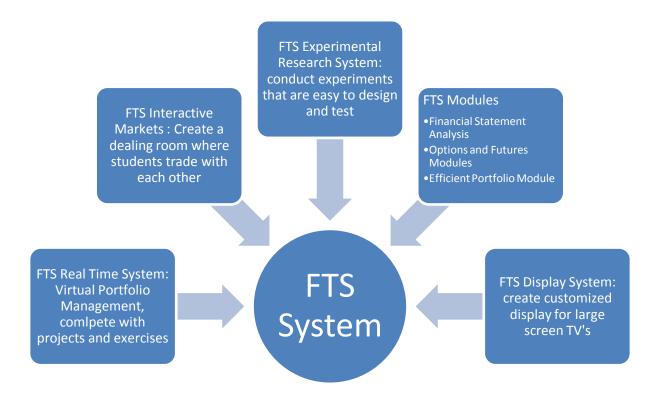


An FTS subscription can be customized to meet fit your teaching needs. There is no restriction on access: students can access the system from home, which allows for widespread use in online courses and distance education.

A quick guide of the capabilities of FTS and what your students will achieve is in the following documents:

- The <u>Student Case Preparation Guide</u> shows you exactly how students learn and develop their analytic and model building skills using the <u>FTS Interactive Markets</u> Trading Simulations.
 Advanced uses include building automated trading strategies in Excel using VBA.
- The <u>Hedging with Futures</u> project is one example of how the real time projects let students develop a deep understanding of financial concepts and their practical application in portfolio management in our <u>FTS Real Time</u> virtual portfolio simulation. Other examples of projects include the
 - o Black-Litterman Model
 - o **Hedging with Options**
 - o International Diversification
 - o **Earnings Forecasts and PEAD**
 - The Value Investing Project
 - o The Accruals Anomaly

The next graphic summarizes the different FTS products and applications; they are described in more detail below. We can customize a package to meet your teaching needs, please contact us at ftsweb@gmail.com.



The FTS system comprises the following, described briefly below (you can get more details on each at www.ftsweb.com):

	Students manage positions of real-world	We provide complete back office
	securities at real-time prices. We run	support, including real time data feeds, a
Virtual portfolio	the entire back office (including handling	step-by-step teaching guide, access to
management:	the real-time data feeds). With the built	company filings and publicly available
FTS Real Time	in analytical support and algorithmic	information, built-in analytical support.
<u>System</u>	trading capability, it provides a uniquely	Examples of how students learn is our
	successful way to bridge theory and	Value Investing Project and the Hedging
	practice.	with Futures project.
	These are true "markets" where students	We provide over 30 trading cases and
	trade with each other. Students	ongoing support for creating customized
	experience what it is like to be in a live	trading cases. The cases can be used in
Markets with	dealing room. Specially designed trading	courses in finance, accounting,
price discovery:	cases tie a central function of markets,	economics, and we now have cases
FTS Interactive	price discovery, to concepts commonly	covering ethics. This system is also used
<u>Markets</u>	taught. A variety of microstructure	for experimental research. Students
	treatments provide a rich framework for	develop their analytical skills and
	understanding liquidity, transparency,	modeling skills in Excel as they prepare
	market impact, and the dynamic nature	for cases, as you can see in the Student

	of markets.	Case Preparation Manual They can also
	of markets.	develop trading algorithms in VBA.
		Complete with student and instructor
The Financial Statement Analysis Module	A hands-on way to teach and learn financial statement analysis from first principles. The module includes quick and easy access to a rich set of company filings, from US and international companies. Students can conduct a comprehensive fundamental analysis and gain a deep understanding of financial performance in light of a company's business strategy.	handbooks and a grading capability that lets you quickly see if students have mastered concepts. The self-study data set is especially useful for distance learning and online students. This module has been enhanced to work directly with databases such as Compustat and Morningstar, allowing students to gain a deep appreciation for corporate financial reporting, financial statement analysis, and valuation.
Valuation Tutor	An interactive and <u>visual presentation</u> of Financial Statement Analysis and Valuation, with a complete <u>textbook</u> , <u>lessons</u> , and <u>case studies</u>	Based on learning via exploration and discovery, Valuation Tutor includes access to interactive SEC filings of the 3000 largest US companies, and lets students analyze and compare companies easily.
Bond Tutor	Covers bond valuation, the term structure of interest rates, interest rate futures, and hedging interest rate risk.	Our unique "interactive textbook," where visual calculators are integrated into the online textbook. You can change the numbers and see what happens.
The Modules	The FTS Modules are "stand alone" teaching tools that allow students to analyze real world problems with real world data. The modules perform calculations that are difficult by hand or in a spreadsheet, and also visually illustrate how techniques and concepts are applied in practice.	The modules are described here . They are stand-alone teaching tools that provide a graphical exposition of concepts, covering portfolio theory, bonds, options, and futures. These are complemented by our online texts on portfolio theory and option valuation.
Experimental Research	The FTS Interactive markets have long been used for experimental research. Contact us for more information.	Experimental research is conducted with the FTS Interactive Markets as well as our general experimental system that allows wide range of experiments to be conducted.
FTS Instructional Support	We provide training on how to use the system effectively in the classroom in any finance or related course.	Our system was designed by Professors John O'Brien and Sanjay Srivastava, and they continue to be deeply involved in sharing their teaching and research experiences over the past twenty years.
FTS Technical Support	We provide technical support all the time; since we operate in over 20 countries, we are well aware of time zones!	Over the years we have seen a large growth in the use of our system in online courses, so we are fully aware of issues with online courses and distance

		learning courses.
The FTS Display System	The FTS Display System lets you create displays for computers connected to large, high definition display monitors (or televisions). Every part of the display is customizable.	The application consolidates news and information from different internet sources market data charts from FTS data servers to provide a rich display of news, financial news, sports, and entertainment.

FTS was recognized in 1996 when the Smithsonian Institution's Museum of American History made the progressive work of the FAST Lab part of its permanent research collection.

For those who have built or are building trading rooms, it is critically important to develop a strategy for integrating the trading rooms into the curriculum. The investment in such rooms is typically large, and while a trading room can be a showpiece and demonstrate a commitment to technology and real-world education, the effective use of such rooms can be limited by several factors. The foremost is faculty training and a willingness to adapt newer methods into their classes. Another is technical support that makes widespread usage feasible. The investment is hard to justify if either a very small number of students benefits from it or if it becomes resource that just "sits there" and is essentially a computer lab with flashy displays¹.

FTS has a broad range of applications, and is used to teach courses in finance, accounting, and economics. Our <u>goal</u> is to link what is taught in standard courses, taken by most students, to real world markets so that all the students see and experience how the concepts they learn are applied and used in the real world. While you can use the system to run specialized courses on trading or market microstructure, our focus and the applicability of the system is much broader.

As a result, FTS is used by schools that have built trading rooms and by schools that have not. It is used for in-class trading exercises as well as by online and distance learning students. Our software was developed by professors for teaching and we place a large emphasis on faculty training. This training is done by professors who have used the system, not by system developers or programmers. Such training typically takes place over several sessions, and includes feedback on course outlines and syllabi (partly to make sure that what is required of students is feasible). With this approach, labor intensive though it is, we have successfully helped many schools with curriculum integration.

Examples of how FTS can be used in your courses are <u>in this document</u>. If you have any questions, or would like a web meeting for a demonstration of the system, please do not hesitate to contact us at ftsweb@gmail.com

Finally, we would also like to mention (independent) published articles that study the effectiveness of the FTS Interactive Markets:

¹ For a discussion of some of the issues surrounding trading rooms, see the BizEd article available at http://www.aacsb.edu/publications/archives/jan03/p22-27.pdf

"Market Games In Finance Education," by F. Douglas Foster, Shirley Gregor, Richard Heaney, Terry O'Neill, Alex Richardson, Robert Wood

"Impact Of Computer Based Share Market Simulations On Learning: A Link Between Self-Efficacy And Understanding" by F. Douglas Foster, Shirley Gregor, Richard Heaney, William Northcott, Terry O'Neill, Alex Richardson, Emma Welch, Robert Wood

"<u>Using Trading Simulations to Teach Market MicrostructureConcepts</u>," by Asli Ascioglu, Bryant College Lynn Phillips Kugele