

A Guide to Academic Technologies

available at Thomas Jefferson University

Design, Build and Deliver Your Courses



Need help getting started? **Just ask CTL**

Center for Teaching and Learning

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Introduction

The technologies which may be employed today for teaching are both exciting and daunting. We have written this booklet to assist Jefferson faculty in understanding those available at the University and the related support services. Although you will also find this information on our website: jefferson.edu/ctl, we felt it might be useful to have a print copy at your desk. Please know that CTL staff members are available to consult with you at any point in course development or delivery, including problem resolution. To facilitate that, we've included phone numbers and email addresses for the appropriate consultants.

Please don't hesitate to contact any of us.

Anthony J. Frisby

Director, Center for Teaching and Learning
and the Scott Memorial Library

1. Design/Plan Your Course or Presentation

1.1 Instructional Design

Whether you are preparing your first lecture or redesigning a traditional course you've taught for years into a distance learning format, working with one of Jefferson's instructional designers will help. Your instructional designer will work with you to define the audience and desired outcomes, create an engaging, learner-centered interaction with your content, and an appropriate assessment activity to document the outcome.

Options available to you include use of an audience response system (Turning Point), online testing, support for use of mobile technologies (e.g., iPads) by students, and more.

Jefferson's instructional design services are covered for all credit courses at the University.

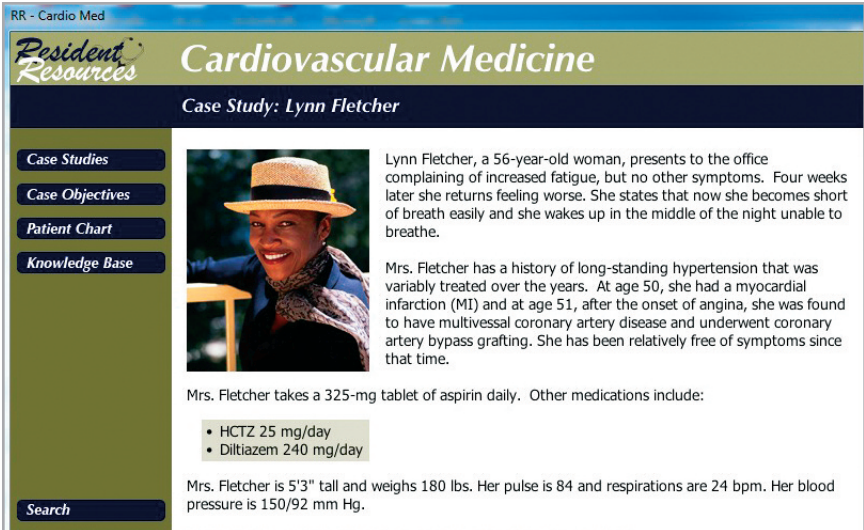
Contact:

Kathleen Day

Instructional Design Specialist

215-503-4991

Kathleen.Day@jefferson.edu




RR - Cardio Med

Resident Resources Cardiovascular Medicine

Case Study: Lynn Fletcher

Case Studies
Case Objectives
Patient Chart
Knowledge Base



Lynn Fletcher, a 56-year-old woman, presents to the office complaining of increased fatigue, but no other symptoms. Four weeks later she returns feeling worse. She states that now she becomes short of breath easily and she wakes up in the middle of the night unable to breathe.

Mrs. Fletcher has a history of long-standing hypertension that was variably treated over the years. At age 50, she had a myocardial infarction (MI) and at age 51, after the onset of angina, she was found to have multivessel coronary artery disease and underwent coronary artery bypass grafting. She has been relatively free of symptoms since that time.

Mrs. Fletcher takes a 325-mg tablet of aspirin daily. Other medications include:

- HCTZ 25 mg/day
- Diltiazem 240 mg/day

Mrs. Fletcher is 5'3" tall and weighs 180 lbs. Her pulse is 84 and respirations are 24 bpm. Her blood pressure is 150/92 mm Hg.

Search

Resident Resources: Cardiovascular Medicine was a case-based instructional application developed to help primary care residents prepare for their licensing exam.

1.2 Order Your Materials

If you expect to need instructional materials for your students to use such as videos, anatomical models, bone boxes, specialty software, or electronic reserves, contact a collection management professional with your request. The preferred format for journals and books is now electronic. Collection development policies apply to books, journals and non-print media.

An access-restricted streaming DVD server for online videos. Whenever possible, Scott Library will negotiate for user licensing that gives your students the greatest flexibility for access.

If you need copyright clearance for certain materials, the library will obtain quotes from the Copyright Clearance Center.



Over 100 models, mannequins and bone boxes are available at Scott Memorial Library.

Contact for journals, books and copyright clearance:

Diana Ryan,
Director, Collection Management
215-503-2829
Diana.Ryan@jefferson.edu

Contact for non-print media:

Rod MacNeil
Director, Library Operations
215-503-2827
Roderick.MacNeil@jefferson.edu

1.3 Graphics, Photography & Video Services

When you require professional-quality illustrations or photographs for presentations or publications, specialists are available to meet your need. Schedule our staff photographer to visit your site, or order medical illustrations or publication design services from our graphic artists. In-house printing of posters for display at professional meetings is surprisingly affordable.

If you want to document a special presentation or procedure with video recording, a full-service video production unit is at your service, from script planning to digital editing.

All work complies with University branding standards.

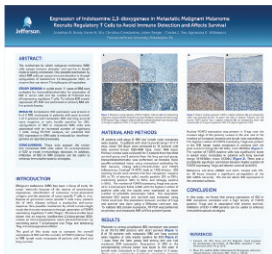
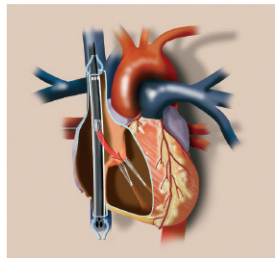
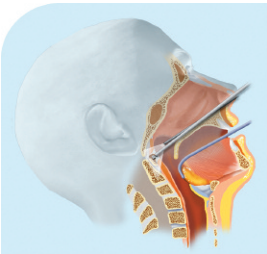
Contact:

Pejman Makarechi

Director, Biomedical Communications

215-503-7841

Pejman.Makarechi@jefferson.edu



2. Build Your Course with Blackboard LMS

2.1 Learning Management System

A Learning Management System (or LMS) is a software package that allows instructors to interact with students and put their courses on the web without having to be experts in coding or web development. Students get "anytime, anywhere" access to learning content and administration. Jefferson uses Blackboard software as its web-based LMS. Blackboard automates student registration, the delivery and tracking of e-learning courses and content, and testing. You can post your handouts and presentations, conduct quizzes, calculate student grades and post them online.

All credit-granting courses are automatically synched with data from the University's student record system (Banner). Blackboard is very easy to use and you can find a range of support materials, from "getting started" tips and easy-to-follow video demonstrations, to more advanced functions, on the CTL website. Personal support is available to all faculty teaching at Jefferson.

Supplemental modules in addition to basic Blackboard software are available for all courses:

- Respondus (for creating assessments and surveys)
- SafeAssign (to help identify potential plagiarism)
- Blogs (often used for student journals and reflection)
- Wikis (used for individual or group assignments)
- Podcasting (for your audio recordings)
- Automatic synchronization with the Classroom Lecture Archive System

Blackboard self-help is available at <http://www.jefferson.edu/university/teaching-learning/learning-technologies-support/blackboard.html>

Contact:

Kathleen Day

Instructional Design Specialist
215-503-4991
Kathleen.Day@jefferson.edu

2.2 Assessment for Traditional, Blended & Online Courses

Assessment is more than just a grade at the end of your course. At Jefferson, you'll want to practice continuous assessment, to help your students succeed, and to document the learning outcomes identified for your lecture, workshop or course. Blackboard supports a variety of assessment measures:

- Online testing (including multiple choice, true/false, short answer, essay, matching, and sorting, just to name a few).
- Tests can be entered directly into Blackboard or by using the Respondus application (useful if your questions are already in a Word or Excel file).
- An assignment drop box for written assignments.
- A specialized "Safe Assign" dropbox for written assignments you want to run through the plagiarism evaluation tool.

Each of these can be set up for general student access (which you can specify a begin and end time for) or as an adaptive release access which lets you require specific prior activities or scores before the student can move forward to the next activity.

Blackboard workshops are offered each semester to help you take advantage of this powerful resource, or contact an instructional designer to answer your specific questions or request a consultation.


Contact:

Kathleen Day

Instructional Design Specialist

215-503-4991

Kathleen.Day@jefferson.edu



Preview Assessment: Medical Terminology - Quiz I

Name	Medical Terminology - Quiz I
Instructions	For each multiple choice question, select the letter that corresponds with the best answer. For each fill-in-the-blank question, enter the specific word element (prefix or suffix) that correctly completes the medical term. Please be sure to pay attention to spelling on the fill-in-the-blank responses as proper spelling for the answers to these questions is required. Mark true or false in the space provided for all true/false type questions.
Timed Assessment	This Test has a 1 hour timer. The elapsed time appears at the top right of the window. A 1 minute warning will be displayed. <i>[The timer does not appear when previewing this Test]</i>
Multiple Attempts	Not allowed. This Test can only be taken once.
Force Completion	This Test can be saved and resumed later.

▼ **Question Completion Status:**

Question 12	10 points	Save
Intercostal muscles can be found where in the body?		

Blackboard supports many different types of assessment to match the needs of your course.

2.3 Plan Ahead to Record Your Course: Classroom Lecture Archiving System (CLAS)

Your students will want to be able to revisit and study from your lectures. Be sure to schedule your recordings in advance, so any necessary releases can be obtained, and so your course can be scheduled for one of the classrooms in which CLAS is installed.

When you opt to have your presentations recorded, they are stored in a secure area and linked into your Blackboard course, so that only the students who have registered for your course and section will be able to review your lectures. They'll continue to have 24/7 access via Blackboard while enrolled at Jefferson, so they can refer to your materials as needed to study for licensing exams.

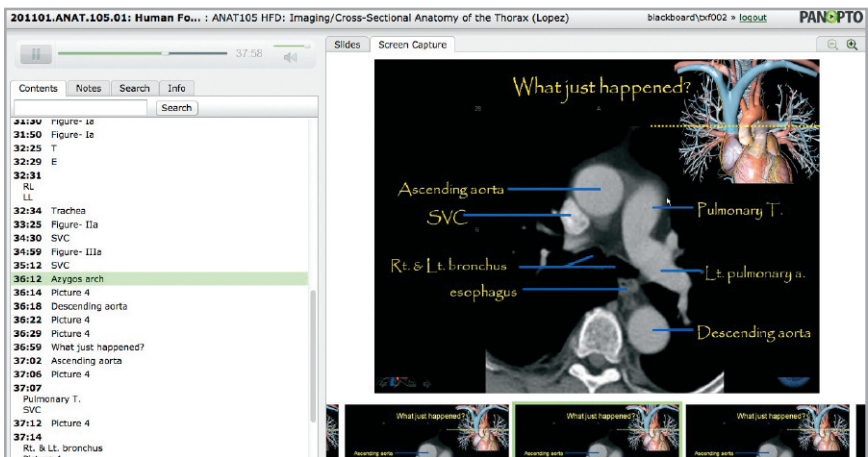
The archiving system will capture only your audio and your slides or computer-based displays – no live theater! You will be able to see statistics on the use of your recordings and review their content yourself when you are ready to plan your next course.

Visit the CTL website, select Lecture Capture Support (under the Learning Technologies Support menu) for the current list of classrooms served by CLAS, scheduling instructions, frequently-asked questions, and sample release forms.

Contact:

Chris Braster

Assistant Director, Educational Technologies
215-503-3120
Christopher.Braster@jefferson.edu



CLAS navigation allows viewers to identify and choose specific segments of the presentation for repeated viewing.

2.4 iCE Platform & App for Faculty

The iCE Platform & App holds potential to revolutionize the delivery of curriculum at TJU. Designed specifically for the iPad, it puts the device's functionality and user-friendly interface to good use.

The iCE Faculty Dashboard allows instructors to create and use content objects to design modules and topics to make up their courseware. They can add any number of related content assets to support their learning goals, such as recordings for the auditory learner, extra literature for students who want to delve deeper, interactive graphics, links to web pages, images, and much more. These learning resources are stored in a database and can be shared throughout the curriculum, across all programs, creating a shared student experience.

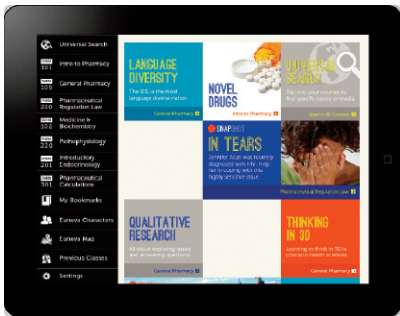
Contact:

Martha Ankeny

Director, Learning Initiatives

215-503-3124

Martha.Ankeny@jefferson.edu



Easily build modules and topics with the iCE Platform and deliver them directly to students' iPads

3. Deliver Your Course or Presentation

3.1 Teaching Support Services: You are Never Alone

Jefferson has over 100 technology-equipped teaching spaces on campus, automated lecture capture in 40 classrooms and auditoria, Symposium interactive tablets for live presentation annotation, webcasting, video streaming and videoteleconferencing – all the technology choices can be a bit challenging. The CTL audiovisual technicians are there for you at your point of need, supporting the new academic technologies while also providing familiar and traditional audiovisual support services, such as laptops, video projection, and microphones.

A menu of basic services is available to all Colleges and Schools without charge, for all curriculum-based courses scheduled to start between 8 a.m. and 6 p.m. Monday-Friday. Specialty services (including attendance by an audiovisual technology specialist), special event support and non-curriculum-based activity support are also available on a fee basis.

Contact:

Pejman Makarechi

Director, Biomedical Communications
215-503-7841
Pejman.Makarechi@jefferson.edu

No-Charge Services	Fee-based Services
Basic AV support for University classes starting between 8 am and 6 pm.	AV services for special events, evening (starting after 6 pm) and weekend classes and meetings.
Set up by an AV Technician at the start of each class and trouble shooting, when needed.	Attendance by an AV Technician for the duration of an event.
Central scheduling for automated lecture capture (where available).	Manual recording of classes or special events, webcasting, web streaming and videoteleconferencing.
Access to basic AV equipment for students and student organizations between 8 am and 5 pm on weekdays.	Evening (after 5 pm) and weekend access for students and student organizations for AV equipment and services.
Faculty and staff may reserve LRC computer classrooms in advance.	LRC usage outside of regular hours and/or if a technician is needed.
	LRC usage by non-Jeffersonians.

3.2 Computer Classrooms on Campus

When your students need hands-on experience or group computing support, consider using a computer classroom. There are 3 Mac classrooms and 4 Dell/Windows-equipped rooms, including a wet lab and the Center for Pharmacy Informatics. Course-related specialty software, such as SAS, SPSS or ArcView, is already loaded; staff can also load unique software that you provide.

A menu of basic services is available to all Colleges and Schools without charge, for all curriculum-based courses scheduled to start between 8 a.m. and 6 p.m. Monday-Friday. Specialty services (including attendance by an audiovisual technology specialist), special event support and non-curriculum-based activity support are also available on a fee basis.

Building	Room	MAC	PC	Special software/use
Scott Memorial Library	306	50		iWork
Scott Memorial Library	307		30	SAS, ArcView, Adobe Creative Suite
Jefferson Alumni Hall	M12			Video/Graphics & Video Conferencing
Jefferson Alumni Hall	M13A		40 *	
Jefferson Alumni Hall	M13B		40 *	SPSS
Jefferson Alumni Hall	311	25		NVivo, iWork
Jefferson Alumni Hall	509	75		Wet lab that incorporates the use of computers for microscopic anatomy along with general computing capabilities
Dorrance H. Hamilton	616		54	Center for Pharmacy Informatics

* Can be combined into an single 80 seat classroom.

Classroom and CPI reservations:

<http://library.jefferson.edu/Services/classroom.html>

Wet lab reservations:

<http://www.jefferson.edu/registrar/roomreserve.cfm>

Faculty may reserve a classroom for instructional use or professional activities at no charge. The classrooms are available for open use by students when not reserved for a class.

The Center for Pharmacy Informatics (CPI), on the 6th floor of the Hamilton building, is designed for small group work within a large classroom setting. Though this classroom is within the CPI, it is available for use by other programs.

Jefferson Alumni Hall room 509 is a BL-2 wet lab, where chemical material or biological matter can be used. The computers in this lab can be used for microscopic anatomy, neuroinformatics, and other, more general computing. Both the CPI and room 509 are reserved through the Registrar's office.

Contact:

Kevin Johnson

Coordinator of Learning Resources

215-503-2832

Kevin.Johnson@jefferson.edu



JAH room 509 wet lab.



Students working together in JAH 509.



JAH LRC, two 40-seat Windows classrooms can be combined into an 80-seat room.

3.3 Distance Learning: Videoteleconferencing Streaming & Virtual Classrooms

While most Jefferson courses use Blackboard for their online component, you may need additional support when you or your students are located off campus. Several tools are available to support distance education and professional presentations: consult a media specialist for advice about the most appropriate technology to meet your need.

Videoteleconferencing

For fully interactive and "real time" connection with distant students, you have access to videoteleconferencing over the Internet (VTC/IP) service. In addition to sharing a presentation among the sites, this service allows for two-way, fully interactive audio and video communication between the sites. It's perfect for classes where students need to be able to view materials, communicate questions and comments, and make presentations to their peers.

This technology has been used for graduate-level nursing classes, clerkship and residency sessions with remote affiliates, and special presentations and meetings for other Jefferson departments. Trained media support staff coordinate the arrangements with the remote site so you can focus on teaching.

The Jefferson Alumni Hall computer classroom includes a room designed for video conferencing, equipped with high-quality two-way audio and video communication with an audience at a remote site. Room 200A in Scott Memorial Library also supports videoteleconferencing. Faculty may reserve the room, and of course, training is available from our helpful staff.

A fee schedule for videoteleconferencing services is available upon request.

Contacts:

Pejman Makarechi

Director, Biomedical Communications
215-503-7841
Pejman.Makarechi@jefferson.edu

Patrick Gilligan

Assistant Director, Biomedical Communications,
Manager of Video Production, Webcasting and Video Conferencing
215-503-1543
Patrick.Gilligan@jefferson.edu

Streaming

Think of streaming as live broadcasting over the web. One presenter is able to present to multiple viewers, and your event can be recorded for later viewing.

Web streaming is perfect for special events, like a campus town hall, or a major lecture, where you don't require a great deal of interactivity. Access to the recorded event can be limited to Jeffersonians only, or can be made freely accessible by all via the Jefferson Digital Commons.

CTL's streaming server and professional videographers deliver realtime video-based web streaming for clinical or University events. This is a fee-based service; a fee schedule is available upon request.

Contact:

Pejman Makarechi

Director, Biomedical Communications

215-503-7841

Pejman.Makarechi@jefferson.edu

The image shows a screenshot of a video player interface. The main content area displays a blue background with white text for a lecture titled "Primary Care Meets Population Health: Medical Homes, Medical Neighborhoods, and the Transformation of Health Care". The speaker is identified as Kevin Grumbach, MD, from the Department of Family & Community Medicine at the University of California, San Francisco. The lecture is part of the Paul C. Brucker, MD Lecture series, dated April 11, 2014. The Jefferson University logo is visible in the bottom left corner of the video frame, and a circular seal is in the bottom right. The video player interface includes a search bar at the top, a table of contents on the left, and playback controls at the bottom.

Content	Time
Primary Care Meets Population Health: Medical Homes...	0:00
This is a health system	6:38
Kevin Grumbach, MD, Department of Family & Community...	6:58
Group 20	6:42
Primary Care Meets Population Health: Medical Homes...	7:38
Group 21	7:39
This is a health system	7:58
This is a health system	7:51
A Strong Foundation of Primary Care is Essential to...	7:55
"Simple research concludes..."	8:45
Source: Kessler & Chandra, health Affairs, April 7...	9:02
Source: Kessler & Chandra, health Affairs, April 7...	9:42
Tam O'Sullivan, Secretary for Senate Health Committee...	10:02
Group 12	10:58
Health page, Jan 2, 2013: Primary care doctors growing...	12:23
Family Medicine Residency Program and Number 1500...	13:03
Bodenheimer T. No Big Deal (N Engl J Med 2006;355:862) 864	14:18
The President Wants More Family Doctors	15:02
The President Wants More Family Doctors	15:02
Senator Chris Smith Senate Finance Committee Researche...	16:04
Kandy MacDonell, for UP issues Ways and Means hearing...	16:44
Compassion: And the sacred issue?	17:58
"No, if you don't fix the first issue and do not..."	17:25
Rehabilitation of primary care requires 3 things	18:53
Ratio of Average US Primary Care Physician Income...	18:55

Virtual Classrooms

Most courses call for live, synchronous sessions that allow your distant students to respond and interact with you and/or your campus-based students in “real time.” The virtual classroom is perfect for classes that have synchronous meetings (e.g., lectures) or for online office hours or review sessions.

Virtual classroom technology, sometimes also called “webcasting,” is used to host an online session with a presenter and participants in multiple locations. It supports a shared desktop and PowerPoint presentation, breakout rooms, polling features, text chat and session recording/archiving. Audio and video can be one way or include all participants.

You can originate a virtual classroom session from your home, office or classroom computer. Remote students can sit at a PC, hear the faculty member’s audio presentation and see slides as they are being shown to the class. Remote students are also able to send their questions and comments back to their teacher using a chat window. For classes that require student presentations, remote participants can be enabled to speak and present to the whole class electronically.

Of course, the virtual classroom tool can be added to any course in Blackboard, and the cost of related support services is covered for all University credit courses.

If you only teach students remotely from your office or home, consider requesting an orientation to the virtual classroom so you will be comfortable using the application before your first session with the students.

Contact:

Kathleen Day

Instructional Design Specialist

215-503-4991

Kathleen.Day@jefferson.edu

3.4 iCE Platform & App for Students

For students, the iCE App allows a tailored approach to suit their learning needs. It also eliminates frustration and uncertainty by centralizing everything they need in order to learn a particular concept in one place--on their iPads. It's all organized and accessible through the iCE App: lecture slides, the textbook, their notes, and self-assessments.

Students can view content in different ways and become more active participants in the learning process. They can swipe between modules, jump to topic pages, open embedded videos and interactive components, and link directly to other useful apps (note-taking, textbooks, podcasts, etc.) with the touch of a finger. Plus, it gives them the ability to search for content across courses and then choose and download this content for offline viewing, which means learning isn't anchored to a Wi-Fi signal. With the iCE App, students can, literally, carry their classroom anywhere, in the palm of their hand.

Contact:

Martha Ankeny

Director, Learning Initiatives

215-503-3124

Martha.Ankeny@jefferson.edu



Deliver custom content directly to students' iPads

Instructional Design

Learning Management System Assessment for Traditional, Blended and Online Courses

Distance Learning: Virtual Classrooms

Kathleen Day, Instructional Design Specialist
215-503-4991, Kathleen.Day@jefferson.edu

Plan Ahead to Record Your Course: Classroom Lecture Archiving System (CLAS)

Chris Braster, Assistant Director, Educational Technologies
215-503-3120, Christopher.Braster@jefferson.edu

Computer Classrooms on Campus

Kevin Johnson, Coordinator of Learning Resources
215-503-2832, Kevin.Johnson@jefferson.edu

iCE Platform & App for Faculty

iCE Platform & App for Students

Martha Ankeny, Director, Learning Initiatives
215-503-3124, Martha.Ankeny@jefferson.edu

Graphics, Photography and Video Services

Teaching Support Services

Distance Learning: Videoteleconferencing & Streaming

Pejman Makarechi, Director, Biomedical Communications
215-503-7841, Pejman.Makarechi@jefferson.edu