

# CE 5310 Hydroinformatics Flipped Classroom and Blended Learning

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# MEET THE MODERN LEARNER

As training moves to more digital formats, it's colliding with new realities in learners' jobs, behaviors, habits, and preferences.

Today's employees are overwhelmed, distracted, and impatient. Flexibility in where and how they learn is increasingly important. They want to learn from their peers and managers as much as from experts. And they're taking more control over their *own* development.

## OVERWHELMED...

Number of times online every day  
early days of the Internet **5** | today **27**

**41%** of time workers spend on things that offer little personal satisfaction and do not help them get work done.

## DISTRACTED...

Most learners won't watch videos longer than **4 minutes**

Knowledge workers are constantly distracted with millions of websites, apps, and video clips.

People unlock their smartphones up to **9 times** every hour

**2/3** of knowledge workers actually complain that they don't have time to do their jobs

## IMPATIENT...

Online, designers now have between **5 and 10 seconds** to grab someone's attention before they click away

**5 minutes**—Workers now get interrupted as frequently as every 5 minutes—ironically, often by work applications and collaboration tools

**1%**  
of a typical workweek  
is all that employees  
have to focus on  
training and  
development

## ON-DEMAND

Today's employees find themselves working from several locations and structuring the work in nontraditional ways to accommodate their lifestyles. Companies are finding it difficult to reach these people consistently and even harder to develop them efficiently.

**37%**  
of the global workforce is expected to be "mobile" by the end of 2015

**30%**  
of full-time employees do most of their work somewhere other than the employer's location

**20%**  
of workforce comprised of temps, contractors, and freelancers

## ON-DEMAND

Employees are accessing information—and learning—differently than they did just a few years ago. Most are looking for answers outside of traditional training and development channels. For example:

To learn what they need for their jobs, employees access:

search engines  
online courses  
**70%+** **50-60%**

People are increasingly turning to their smartphones to find just-in-time answers to unexpected problems



## COLLABORATIVE

Learners are also developing and accessing personal and professional networks to obtain information about their industries and professions.

**~80%**  
of workforce learning happens via on-the-job interactions with peers, teammates, and managers

Learners are:  
asking other people  
sharing what they know

at Google, **55%**  
of training courses are delivered by an ecosystem of **2,000+** peer learners

## EMPOWERED

Rapid change in business and organizations means everyone needs to constantly be learning. More and more people are looking for options on their own because they aren't getting what they need from their employers.

**2½ to 5**  
times more people are looking for learning options on their own

**38%**  
of employees are looking for learning options on their own

**62%**  
of employees are looking for learning options on their own

Sources:  
"The Global Workforce Study: Simplify the Work, Strengthen It" © 2014 University Press  
"The Knowledge Worker's Day" © 2014  
"Make Time for the Work That Matters" Harvard Business Review  
"Collaboration: A Social Tech Disruptor in Business Productivity, Creating 500 new jobs with 100 new employees" Business  
"How to Grow Big a Culture of Collaboration" [www.pw.com](http://www.pw.com)  
"Only for 10% of the Workforce, Our Preference List Is 10% of the Day" © 2014  
"The Future of Work: How to Stay Relevant in a World of Work" © 2014  
"The Future of Work: How to Stay Relevant in a World of Work" © 2014  
"The Future of Work: How to Stay Relevant in a World of Work" © 2014  
"The Future of Work: How to Stay Relevant in a World of Work" © 2014

# Flipped Classroom

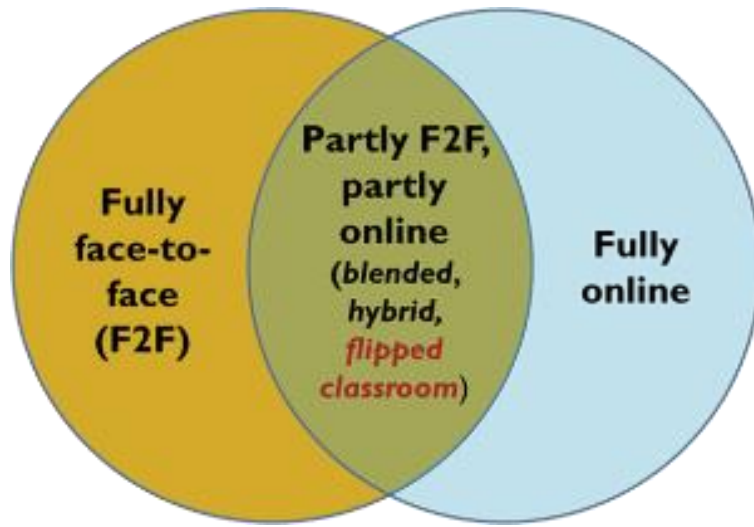


“Flipping the classroom” means that students: gain **first exposure** to new material outside of class, usually via reading or lecture videos, and then, **use class time** to do the harder work of assimilating that knowledge, perhaps through problem-solving, discussion, or debates.

Key elements - flipped classroom

- Provide an opportunity for students to gain **first exposure prior** to class.
- Provide **in-class** activities that focus on **higher level cognitive activities**.
- Provide a **mechanism to assess student understanding**.
- Provide an **incentive** for students to **prepare for class**.

# Hydroinformatics module is offered in a blended learning mode



## What is Blended Learning

a combination of face-to-face with online experiences to produce effective, efficient and flexible learning

## Why Blended Learning?

A well-designed blended learning module aims to promote deeper level of engagement and deeper learning among learners. Blended learning assists in:

- Increased guidance and triggers
- Easier access to learning activities
- Individualized learning opportunities
- Increased engagement through social interaction
- Time to task