as a blended learning toolbox

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Please note!

- The purpose of this presentation is to show examples of Moodle activities.
- I will not show you how to create activities.
- Please take appropriate workshops offered by IITS.
- Or check out tutorials in YouTube.

Moodle Upgrade May 1st

- Today's presentation is based on the current (old) Moodle.
- The new Moodle (version 2.3) has very different look. But all activities are the same and how to edit activities are the same.
- Please attend IITS information session about the new Moodle.

About me

Biology ETA

I teach a lot of courses.

Japanese

I often mix up these letters.

L R

B V

About you

Blended Learning

- Instruction method that uses both in-class activities and online activities.

Example in-class activities

- Lecture
- Group discussion
- Hands on activities
- Clicker quizzes
- Exam
- Oral presentation

Example online activities

- Lecture slides
- Self-tutorials
- Video/podcast
- Discussion forum
- Assignment
- Online quizzes

Blended learning models

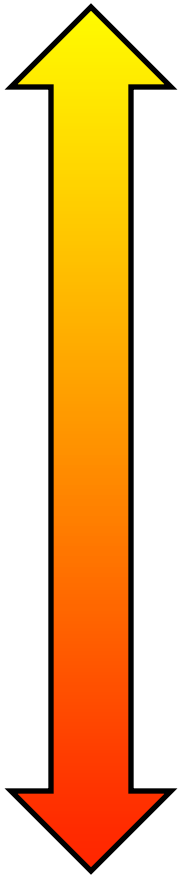
- Supplemental model
- Replacement model

Courses I teach

	Title	Enrollment	TA
Biol 202	Non-Major Biology	150	sometimes
Biol 368	Genetic Cell Biol Lab	60	6 TAs
Biol 461	Advanced Genetics	40	none
Biol 512	Functional Genomics	20	none

Different courses, different needs

Biol 202	diverse background
Biol 368	similar background
Biol 461	similar background
Biol 512	diverse background



Introductory

Advanced

Challenges

- Students come from diverse background.
- Not all courses come with TA support.
- 200-level courses:
  - Large class
  - Students may not know other students
- 400- and 500-level courses:
  - No tutor help
  - No textbook resources

Role of online activities

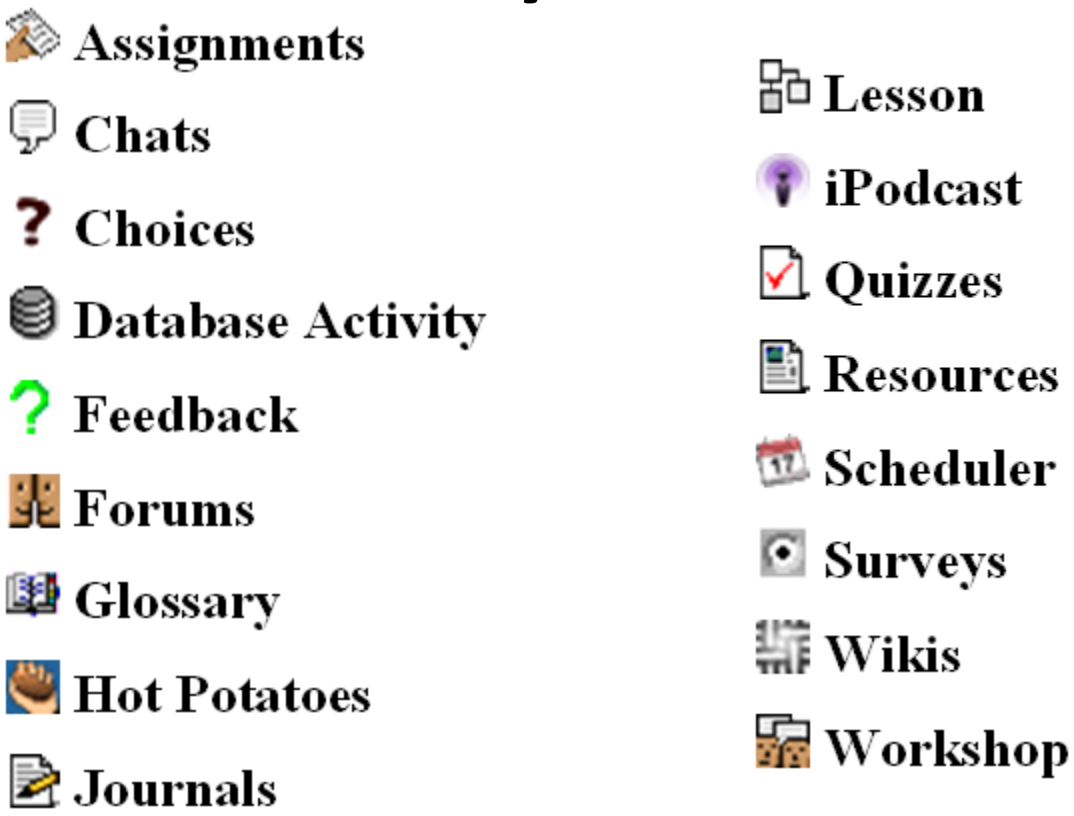
For students:

- Self-directed learning
  - Students can learn according to their own pace.
  - Students can learn from any place.
- Collaborative learning

For instructors:

- Students are more prepared.
- Automatic grading
- Automatic course management
- More time for in-class active learning.

Activity modules



- This list may be intimidating but you'll be surprised at how much you can do using only a few activity modules.

Online Quizzes

Madoka Gray-Mitsumune

Student diversity

How can we make sure that students have appropriate background knowledge?

Self-tutorials

Online quizzes

Plagiarism awareness

I talked about this in my class.
BUT do they really understand it?

Self-tutorials

Online quizzes

8 Online quizzes

Q1

Q2

Please review these files before taking quiz 1.

Concordia Academic Integrity

Not sure how to paraphrase or summerize? Check out this site!

PLEASE VIEW: How to cite without plagiarizing. Self tutorial prepaired by Danielle Dennie.

Please view before taking Quiz 2: Concentration and dilution: quick review

Course evaluation comment:

“I wish I had more opportunities to practice what I learned.”

How can I provide practice questions without spending too much time on grading?

Online quiz!

Online quizzes (Please disable popup blocker to open quizzes in new secure window.)

- General directions for online quizzes
- Demo quiz
- Quiz 1
- Quiz 2
- Quiz 3
- Quiz 4
- Quiz 5
- Quiz 6
- Practice quiz chapter 5 & 6
- Practice quiz Lectures 1-13
- Practice quiz Chapters 6 (chromosomal abnormality) & 7
- Practice quiz Chapters 8, 10, 11 &13
- Practice quiz Chapters 20-22 and 25

Moodle online quiz

Two step process:

- Add questions to the question bank.
- Build a quiz using the questions from the question bank.

Types of questions

- Multiple choice
- Word matching
- Short answer
- Numerical
- Calculated
- Essay (manual grading)

1

Marks: --/1

In the size exclusion chromatography, larger molecules move faster than smaller molecules.

Answer:

- True
- False

Submit

True or false

Which technique accomplish these tasks?

Separate proteins according to their charges.	Choose...
Separate proteins according to their interaction with specific ligand (example: antibody/antigen, biotin/streptavidin, etc).	Choose...
Separate proteins according to their sizes.	Choose...
Separate proteins according to hydrophobicity.	Choose...

Submit

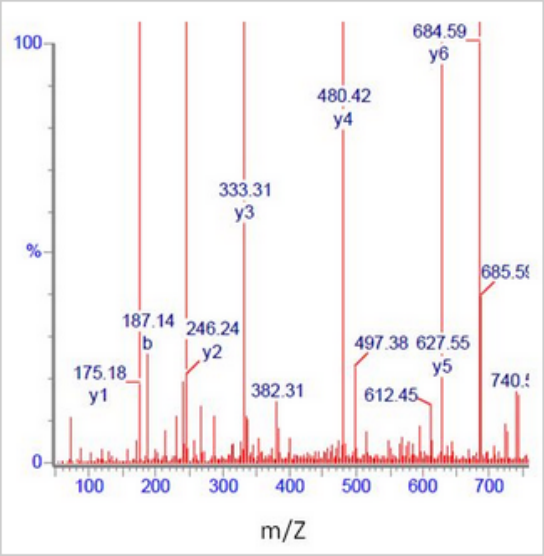
Matching

Shown below is a collision induced dissociation (CID) spectra of a peptide. What is the amino acid sequence deduced from the masses of y1, y2, y3, y4, y5 and y6?
Use amino acid mass information here http://education.expasy.org/student_projects/isotopident/htdocs/aa-list.html

Please use one letter amino acid code without any spaces. Your answer will be graded automatically by Moodle. Reminder: Amino acid sequence should always be written from the N-terminal end.

example answer: GQPLA

Hint1: There should be five amino acid in total.
Hint2: Y peptides are generated from C-terminal end.



Short answer

Answer:

Submit

Calculated (my favorite!)
Same question, different variables

How do you make 1 x saline solution from 35 x saline stock solution?

For a final volume of 350 ml, you need to add _____ ml 35 x stock solution and add water to 350 ml

Answer:

Submit

How do you make 1 x saline solution from 5 x saline stock solution?

For a final volume of 400 ml, you need to add _____ ml 5 x stock solution and add water to 400 ml

Answer:

Submit

How do you make 1 x saline solution from 40 x saline stock solution?

For a final volume of 450 ml, you need to add _____ ml 40 x stock solution and add water to 450 ml

Answer:

Submit

These questions were generated by Moodle using the same question.

Textbook resources

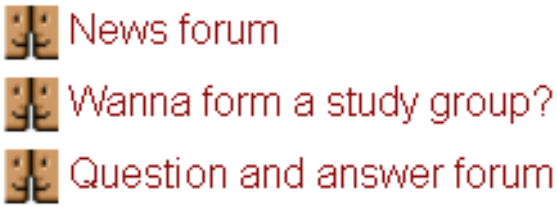
- 200- and 300-level courses: Online quizzes are available with many textbook subscriptions.

- 400- and up: Online quizzes are not available.

Forums

Madoka Gray-Mitsumune

How can we create an environment for collaborative learning?



Q & A forum

Add a new discussion topic

Discussion	Started by	Replies
Cool Biology-type Documentaries		3
4 major elements in living organisms		2
From the teacher	Madoka Gray-Mitsumune	3

Study group forum

Subscribe to this forum

This forum is setup for you to communicate with other students for the purpose of forming study groups. Please note that the instuctor will not be able to organize groups. It is up to you to utilize the system and how to carry out group study.

The student who wish to organize a study group should post the time and place for the meeting. Any students who wish to attend the meeting should indicate by replying to the post. Please note the number of students in a group should be sufficiently small (2 - 6).

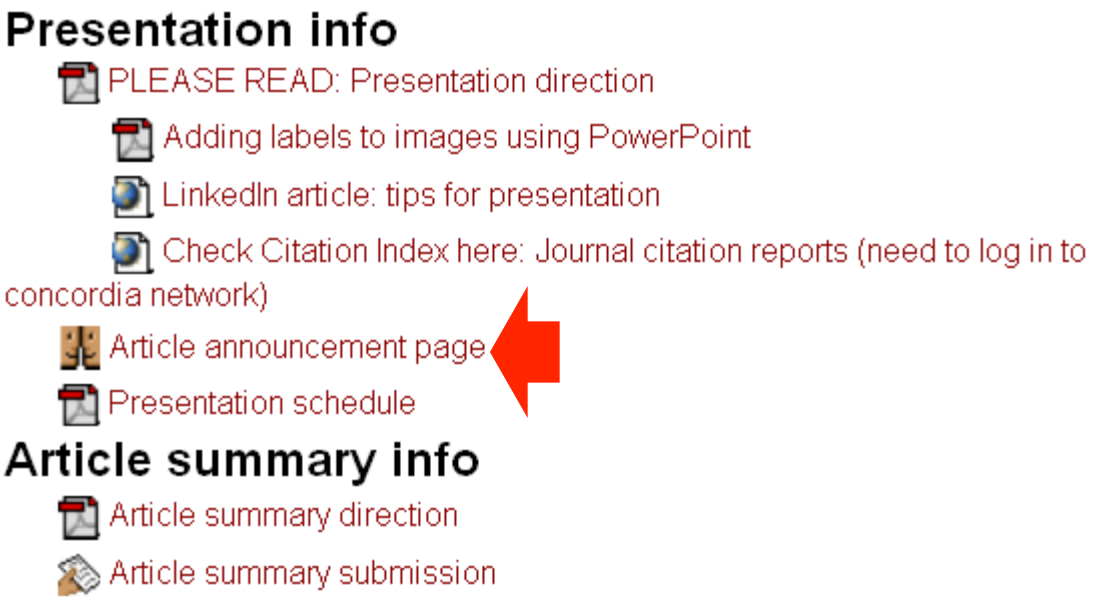
When you meet with other students, you should use general precaution about safety. It is not wise to share your personal information such as your home address and phone number with people you barely met.

If you subscribe to this forum, all forum posts will be automatically sent to your mail address.

Add a new discussion topic

Discussion	Started by	Replies	Last post
study partner wanted		2	Wed, 17 Feb 2010, 11:04 AM
study group????		13	Fri, 12 Feb 2010, 05:04 PM
Study partner wanted - Monday and Wednesday		2	Tue, 19 Jan 2010, 08:18 PM

How can students post files to the entire class?



Presentation announcement forum

Please make announcement by creating the new topic and attach the PDF file to your post. Put your group ID as the topic title.

Add a new discussion topic

Discussion	Started by	Replies
Group 9 - Complex Trait		3
Group 1 - human diease model organisms		3
Group 14		1
Group 11		1
Group 8		3

Presentation announcement forum

Group 1 - human diease model organisms

by Melissa - Sunday, 24 March 2013, 06:21 PM

NeuralCellsFromEScells.pdf

http://www.marcottelab.org/users/CH391L/Handouts/NeuralCellsFromEScells.pdf

Here is an article that Connor and myself would like to present on

Edit | Delete | Reply

Re: Group 1 - human diease model organisms

by Madoka Gray-Mitsumune - Monday, 25 March 2013, 11:22 AM

Hi, Melissa,

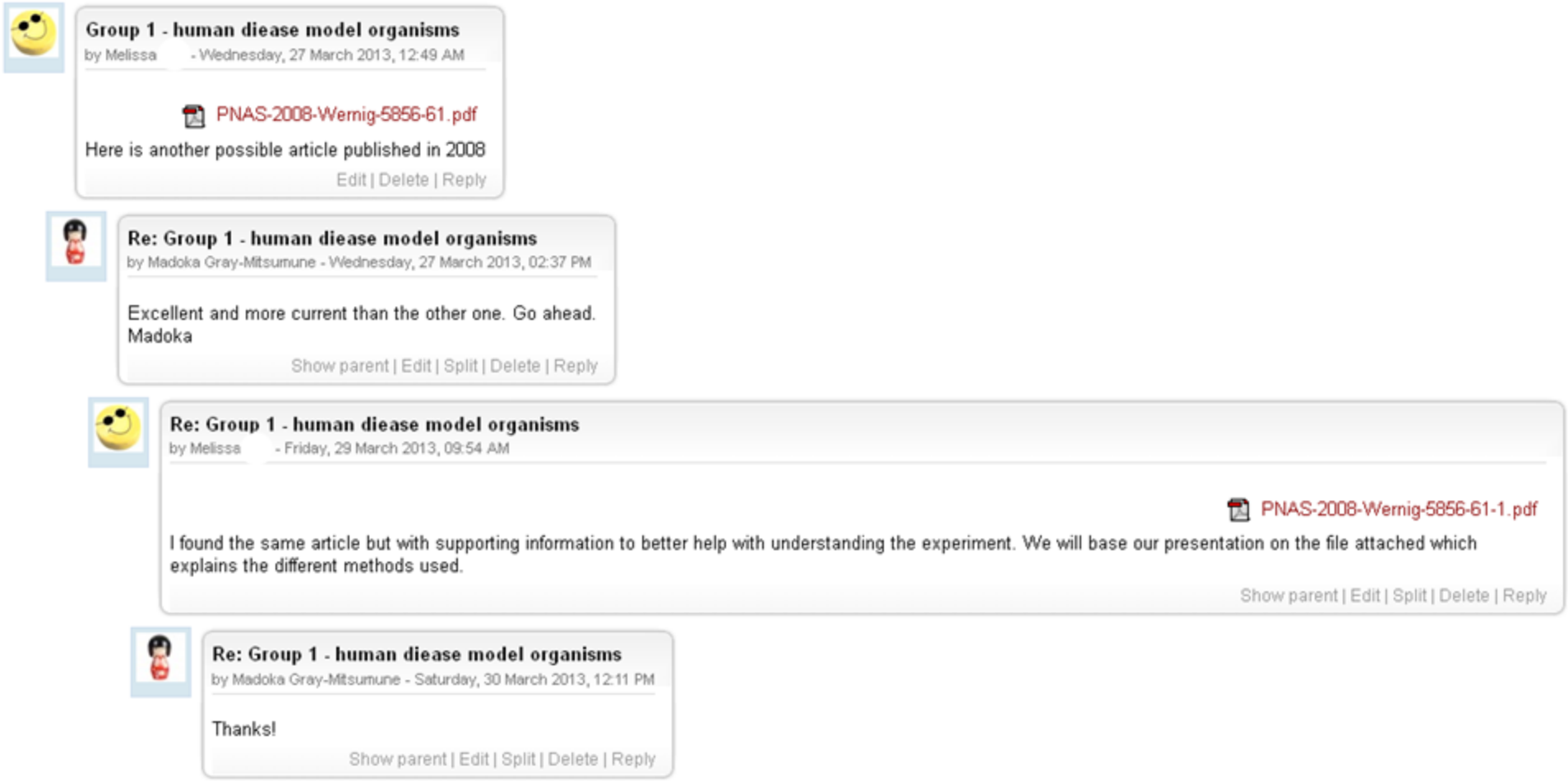
The article is interesting BUT it is older than what I specified. I'm sure you can find something newer.

Try again.

Madoka

Show parent | Edit | Split | Delete | Reply

Presentation announcement forum



Discussion forum

Recommended for only small classes
(~ 20 students)

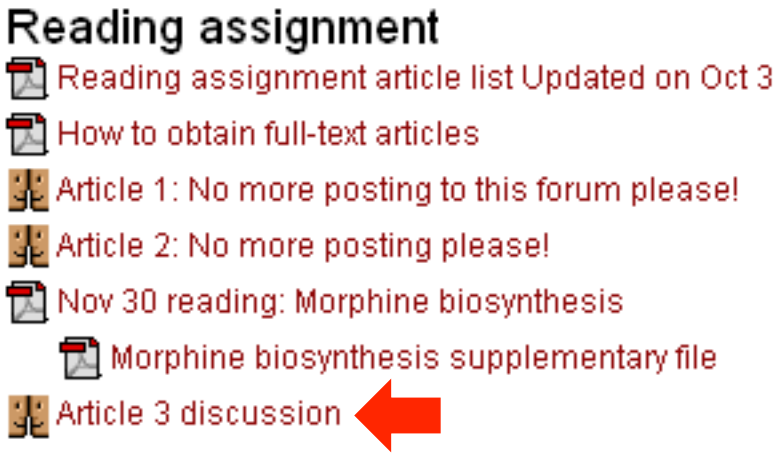
Reading assignments

Online

- Before class: post questions or answer questions in discussion forum.
- Forum closes one week after the in-class activities.

In class

- Group and class discussions.
- Questions in the discussion forum may be used.
- Students answer questionnaires based on the in-class discussion.



Reading assignment discussions

First article

Add a new discussion topic

Discussion	Started by	Replies
SAGE		4
Does any body knows what is splice-croos reads ?		7
RNA standards		3
linear range		2
Splice Isoforms		6
long-range splice contiguity		5

- Questions were mostly about the terms they don't understand.

Reading assignment discussions

Third article

(Required) Please post questions regarding the article 3. If you can't think of any questions, then please answer at least one question posted by other students. Please feel free to expand the discussion.

Add a new discussion topic

Discussion	Started by	Replies
Elicited cell culture		3
Perfect number of wild-type strains		2
2 sequential plasmids?		1
fig2a)		2
protoberberine alkaloid		5
fig1c-		2

- Some students are now asking questions about experimental designs.

Assignment management

We have to handle over 500 reports per term for this course!

3 Lab report submission area

Please read 'Lab Report Guideline' and specific report grading schemes above before writing the report.

You must submit report in two ways: via Moodle and bring in a hard copy to the lab. **Late penalty will be applied if you failed to upload the file or bring in the hard copy on time.** Moodle submission is for keeping track of late penalties and scan for possible plagiarism. Evaluation is based on the hard copy.

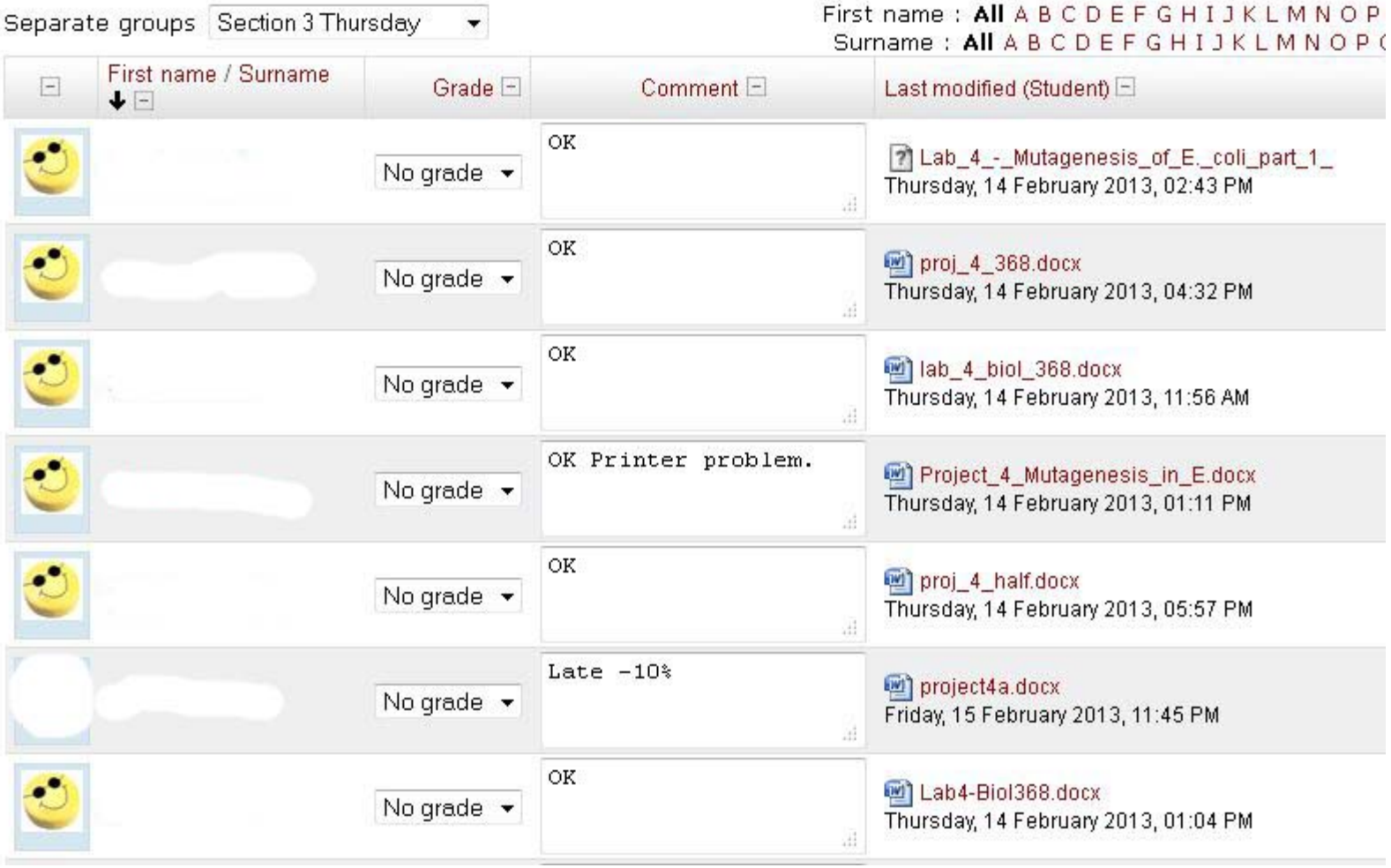
1. Hard copy must be submitted **at the beginning of the lab.**
2. Electronic submission: **Report file must be uploaded to Moodle by 6 pm** on the report due date. Use designated area for each report. Save your report file as an MS word doc. The soft copy should include all texts and tables. However, it is not necessary to include pre-labs, drawings or any other materials needs to be hand drawn.

Lab report late penalty FAQ
Project 1
Project 2
Project 3
Project 4 Part I
Project 4 Part 2
Project 5
Project 6

Assignment management

Deadline is Feb 13 for this section.

Assignment management



Separate groups: Section 3 Thursday

First name : **All** A B C D E F G H I J K L M N O P
Surname : **All** A B C D E F G H I J K L M N O P

First name / Surname	Grade	Comment	Last modified (Student)
[redacted]	No grade	OK	Lab_4_-_Mutagenesis_of_E._coli_part_1_ Thursday, 14 February 2013, 02:43 PM
[redacted]	No grade	OK	proj_4_368.docx Thursday, 14 February 2013, 04:32 PM
[redacted]	No grade	OK	lab_4_biol_368.docx Thursday, 14 February 2013, 11:56 AM
[redacted]	No grade	OK Printer problem.	Project_4_Mutagenesis_in_E.docx Thursday, 14 February 2013, 01:11 PM
[redacted]	No grade	OK	proj_4_half.docx Thursday, 14 February 2013, 05:57 PM
[redacted]	No grade	Late -10%	project4a.docx Friday, 15 February 2013, 11:45 PM
[redacted]	No grade	OK	Lab4-Biol368.docx Thursday, 14 February 2013, 01:04 PM

Deadline is Feb 14 for this section.

moodle

? Choices

Scheduler

(go to Moodle)

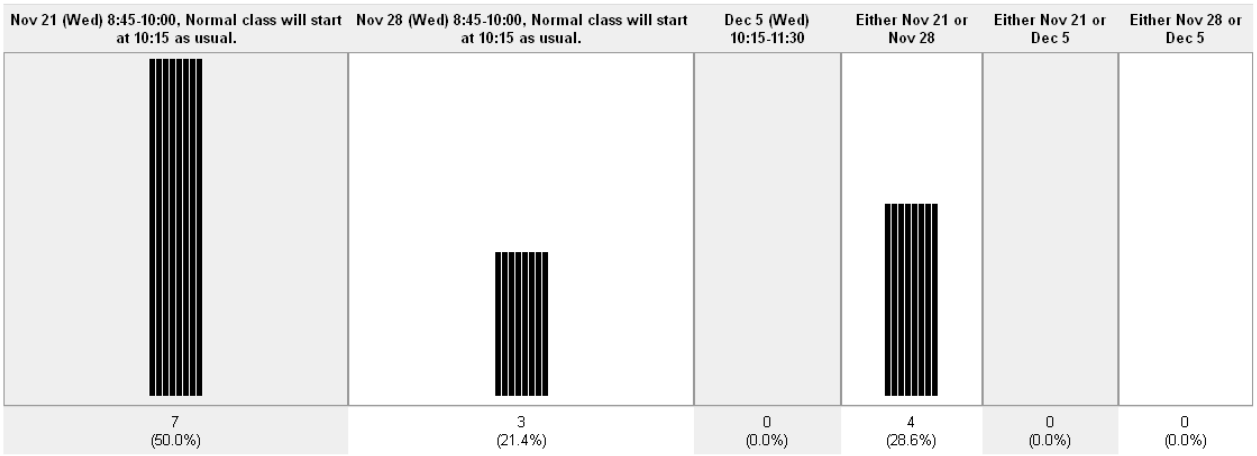
“Choices” as a survey tool

Since I had to cancel a class early in the first week of the term, we need to have an extra lecture date. Please select one of the following options as the time for the make-up lecture. (Note: I had to remove Dec 4th afternoon to prevent conflict with BIOL511/BIOL498O make-up day)
Please vote before the midnight of Nov 8th (Thu).

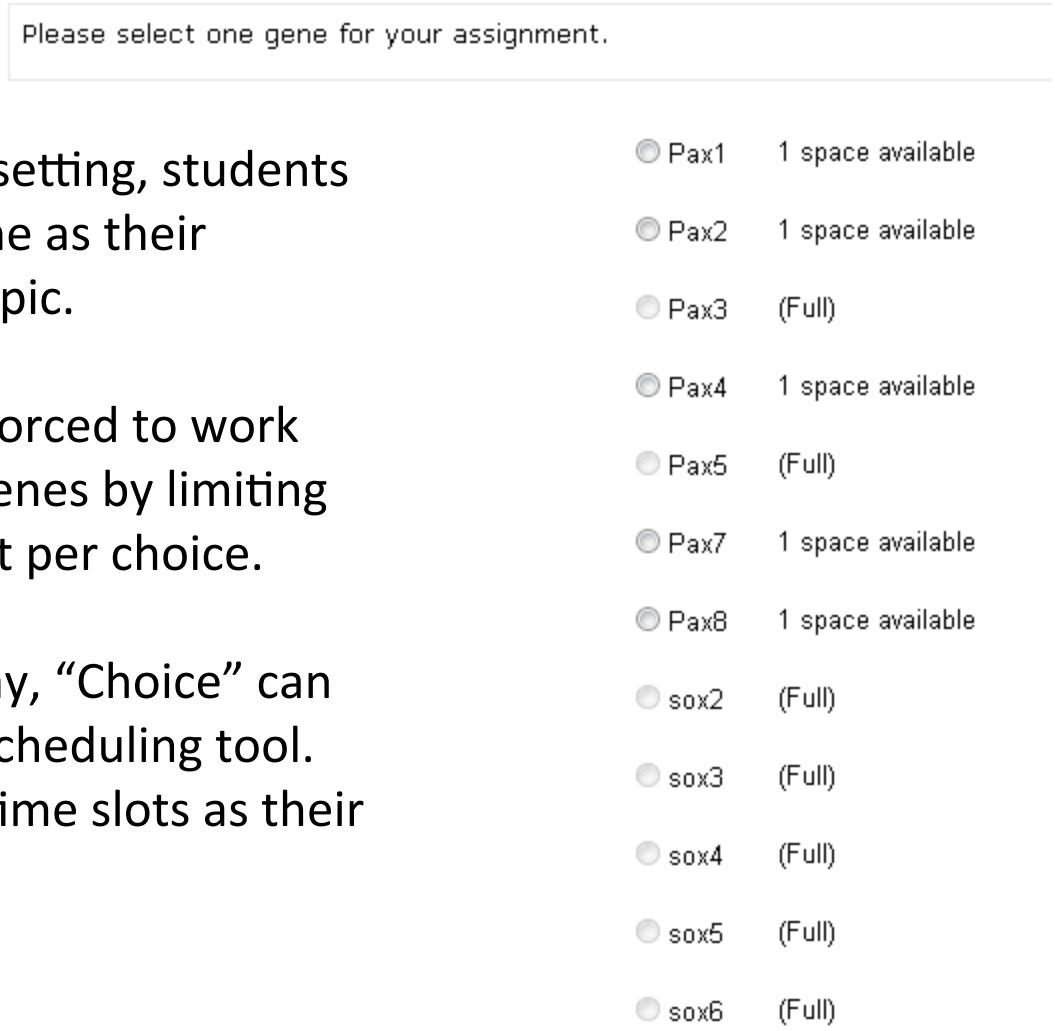
- ○ Nov 21 (Wed) 8:45-10:00, Normal class will start at 10:15 as usual.
- ○ Nov 28 (Wed) 8:45-10:00, Normal class will start at 10:15 as usual.
- ○ Dec 5 (Wed) 10:15-11:30
- ○ Either Nov 21 or Nov 28
- ○ Either Nov 21 or Dec 5
- ○ Either Nov 28 or Dec 5

Save my choice

Responses



“Choices” as a sign-up tool



In this choice setting, students select one gene as their assignment topic.

Students are forced to work on different genes by limiting to one student per choice.

In a similar way, “Choice” can be used as a scheduling tool. Put different time slots as their choice.

Scheduler

Appointment with Madoka

The bold line in the table below highlights your chosen appointment time. You can change to any other available slot.

Slots

Date	Start	End	Choice	Member of Staff	Group Session
Friday, 5 April 2013	02:00 PM	02:45 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	02:45 PM	03:30 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	03:30 PM	04:15 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	04:15 PM	05:00 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
Monday, 8 April 2013	02:00 PM	02:45 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	02:45 PM	03:30 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	03:30 PM	04:15 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	04:15 PM	05:00 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
Tuesday, 9 April 2013	02:00 PM	02:45 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	02:45 PM	03:30 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	03:30 PM	04:15 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)
	04:15 PM	05:00 PM	○	Madoka Gray-Mitsumune	Limited (1/1 left)

I use Moodle for

- Course file distribution **Resource**
- Announcement **Forum**
- Discussions **Forum**
- Self-learning **Resource** **Quiz** **Forum**
- Assignments **Assignment** **Choice** **Forum**
- Grade management **Grade book**
- Appointment **Schedule** **Choice**
- Survey **Choice**

Activity modules

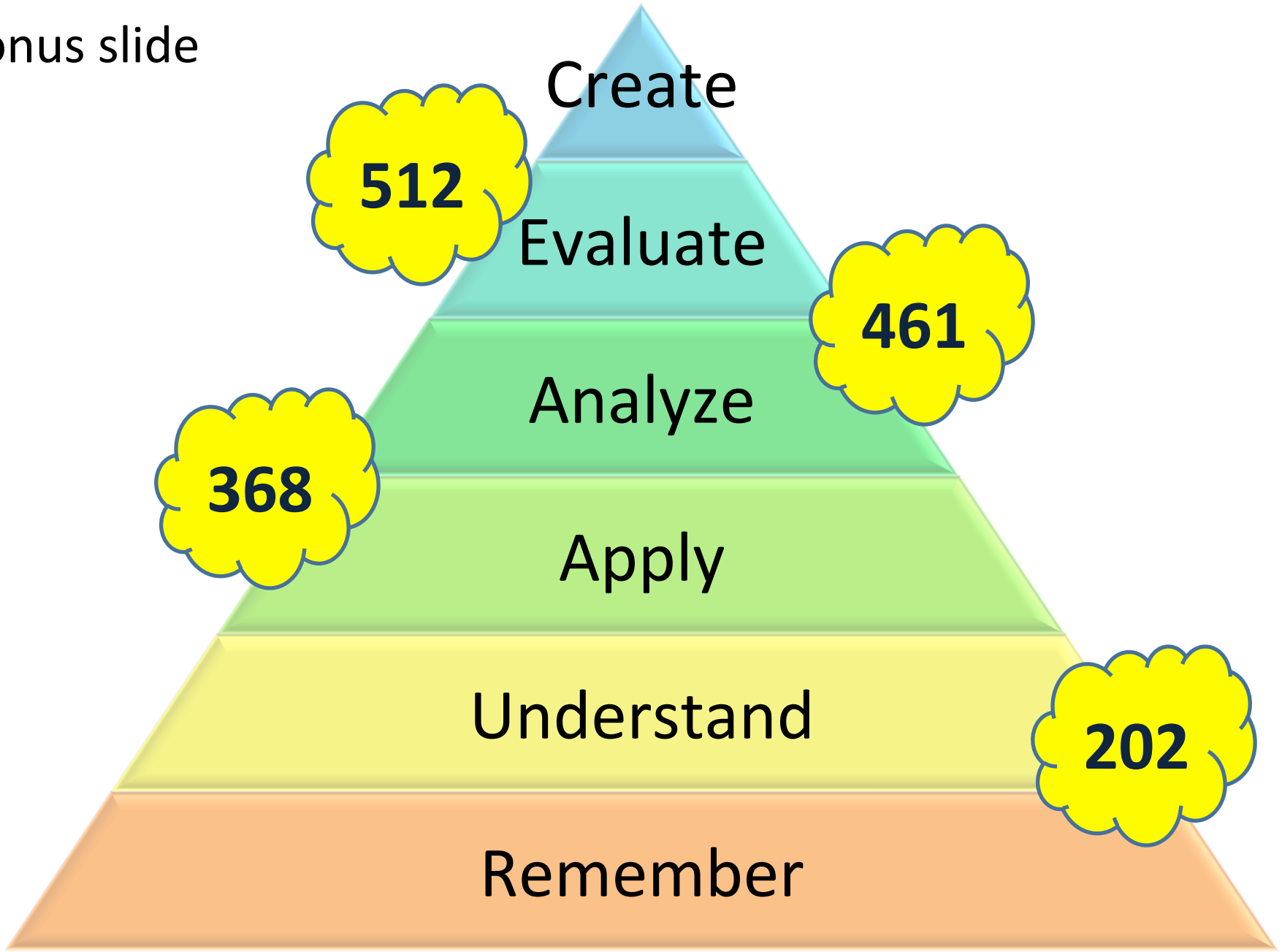
- Assignments ✓
- Chats
- Choices ✓
- Database Activity
- Feedback
- Forums ✓
- Glossary
- Hot Potatoes
- Journals
- Lesson
- iPodcast
- Quizzes ✓
- Resources ✓
- Scheduler ✓
- Surveys
- Wikis
- Workshop

Why do I love Moodle so much?

Classroom experience can be intimidating

Online activities bring us a little closer to each other.

Bonus slide



Revised Bloom's taxonomy, modified from
http://ww2.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm

Madoka Gray-Mitsumune