



# Online Learning Opportunities (MOOCs, Coursera, Assessment)

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#### Outline



- MOOCs
  - □ Why MOOCs?
  - □ MOOCs at University of Alberta

Computer-based assessments for MOOCs

# Online Learning



One way universities are seeking to bring down costs for themselves and their students is by embracing online education.

 Online learning systems can raise graduation rates and boost enrolment among underprivileged students

- □ The leading players are involved:
  - Silicon Valley-based Coursera, and edX,
  - □ Harvard, MIT, several Canadian universities

### **MOOCs**



□ Massive Open Online Courses = MOOCs

A free, not-for-credit course open to anyone.

□ The University of Alberta has partnered with Coursera to develop MOOCs.

□ The purpose is to create highly-engaging and rigorous versions of MOOCs to the general public as well as for UAlberta students.

#### Current MOOCs





Dino 101: Dinosaur Paleobiology



**Understanding Video Games** 



Software Product Management - Specialization

#### **DINO 101**

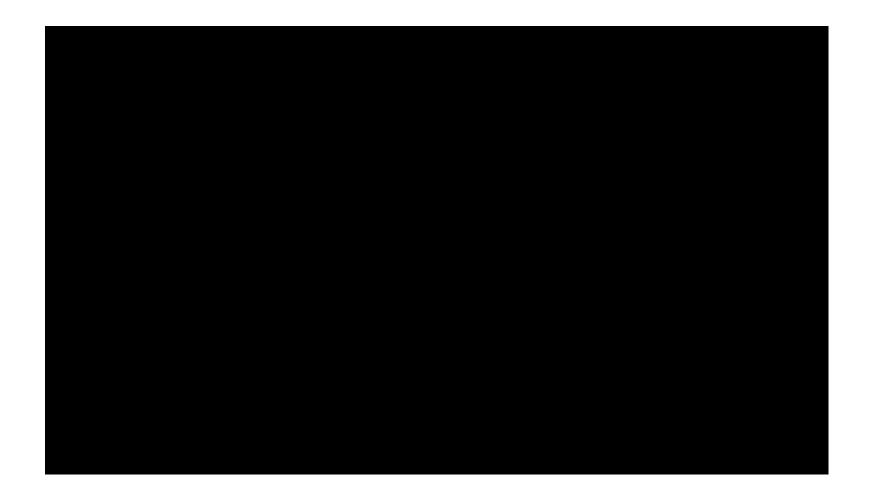


■ Dino 101 is the world's first paleobiology MOOC and Canada's first MOOC available for credit to University of Alberta students.

■ A 12-lesson course teaching a comprehensive overview of non-avian dinosaurs.

- □ The course will be available in two versions:
  - to the world for free (no exams)
  - up to University of Alberta students for UAlberta credit
  - □ For more information: https://uofa.ualberta.ca/courses/dino101





# Understanding Video Games

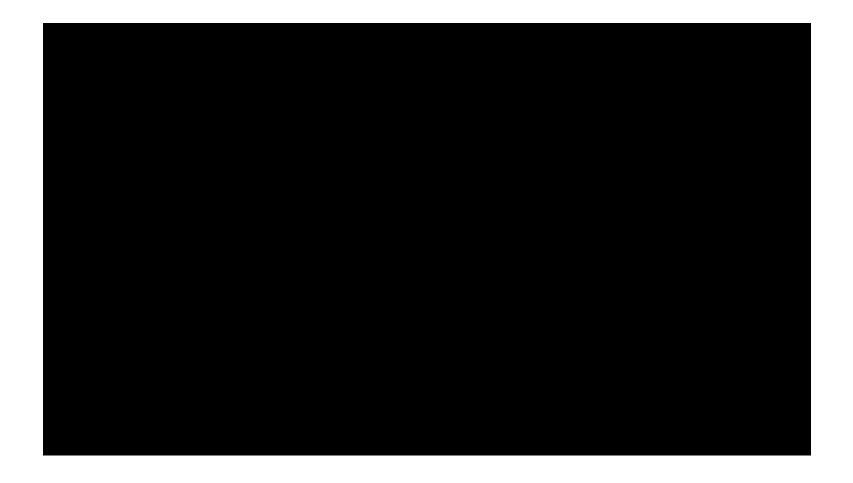


■ An 11-lesson course about analytical theory pertaining to video game media (game mechanics, story, interpretive theory, the culture of games, violence).

□ It was created with the help of world renowned video game developer, BioWare Corp, located in Alberta.

- □ The course is available in two versions:
  - to the world for free (no exams)
  - up to University of Alberta students for UAlberta credit
  - □ For more information: https://uab.ca/UVG





# Software Product Management Specialization



■ It was designed to help learners create better software, satisfy their clients, and grow their careers.

□ A 6-lesson course software product management

- □ The course is available in two versions:
  - to the world (priced by courses)
  - university of Alberta students for UAlberta credit
  - □ **For more information:** https://www.coursera.org/specializations/product-management

#### Future MOOCs



#### ■ Mountains 101:

- □ 10 lessons in total
- □ A comprehensive overview of mountains and their environmental and human impact.



#### Future MOOCs



- Software Processes and Agile Practices
- Client Needs and Software Requirements
- □ Agile Planning for Software Products
- □ Reviews & Metrics for Software Improvements









# Computer-based Assessment



- □ Challenges through MOOCs:
  - ☐ How to administer digital exams to a large number of students?
  - ☐ Test security
  - Cost-effectiveness
  - □ Positive student experience

□ Solution: Computer-based assessment



**Learning Assessment Center (LAC)** 

### Computer-Based Assessment at LAC



□ TAO Open Source Assessment Platform tao

(see <u>www.taotesting.com</u>)

■ The instructors can build test items and generate an item bank within TAO.

□ The TAO platform allows images and other components to create innovative test items.

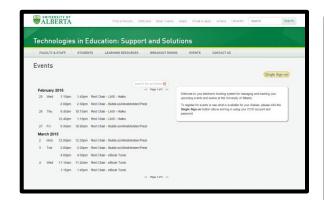
## Founding Principles of LAC

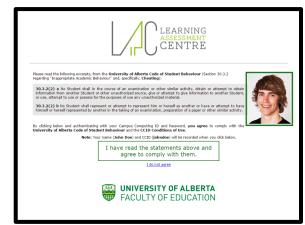


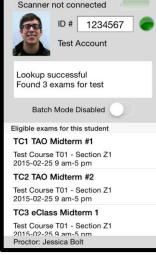
- Flexibility
- □ Time
- Instant feedback
- Cost







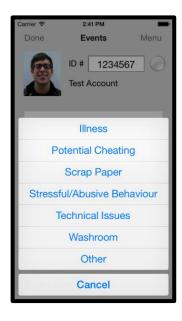




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Review

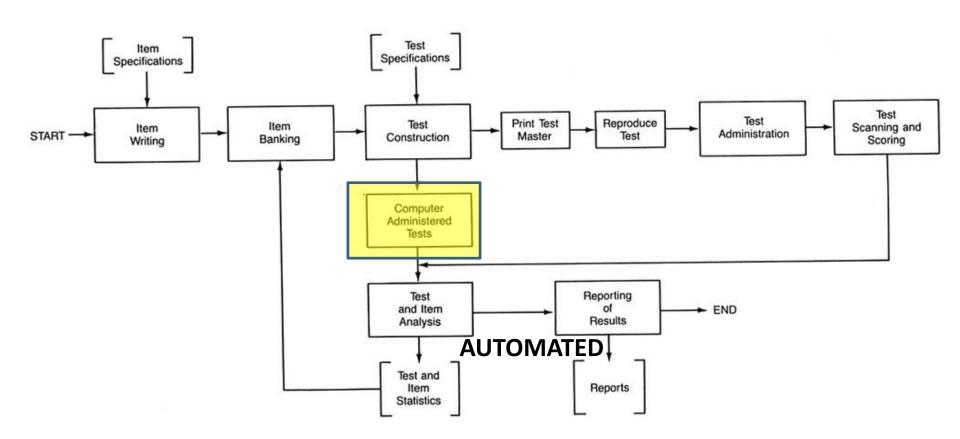
Proctors





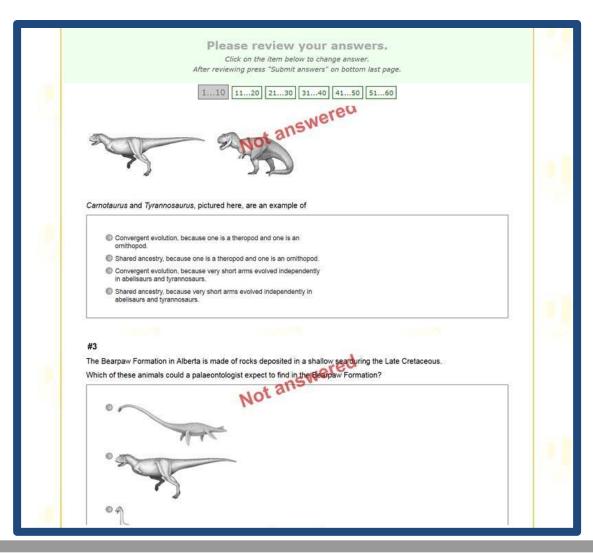
#### **Test Development Test Administration** Test Item Specifications Specifications Test Scanning and Test Reproduce Print Test Test Item Item Administration START Construction Master Test Banking Writing Scoring **Test Reporting** Test Reporting and Item END Results Analysis Test and Item Reports Statistics

# Time





# Feedback





# Cost



# Student Login





Welcome to the Learning Assessment Centre

Log In



# Student Sign In





Please read the following excerpts, from the **University of Alberta Code of Student Behaviour** (Section 30.3.2 regarding "Inappropriate Academic Behaviour" and, specifically, **Cheating**):

**30.3.2(2)** a No Student shall in the course of an examination or other similar activity, obtain or attempt to obtain information from another Student or other unauthorized source, give or attempt to give information to another Student, or use, attempt to use or possess for the purposes of use any unauthorized material.

30.3.2(2) b No Student shall represent or attempt to represent him or herself as another or have or attempt to have himself or herself represented by another in the taking of an examination, preparation of a paper or other similar activity.

By clicking below and authenticating with your Campus Computing ID and Password, you agree to comply with the University of Alberta Code of Student Behaviour and the CCID Conditions of Use.

Note: Your name (John Doe) and CCID (johndoe) will be recorded when you click below.

I have read the statements above and agree to comply with them.

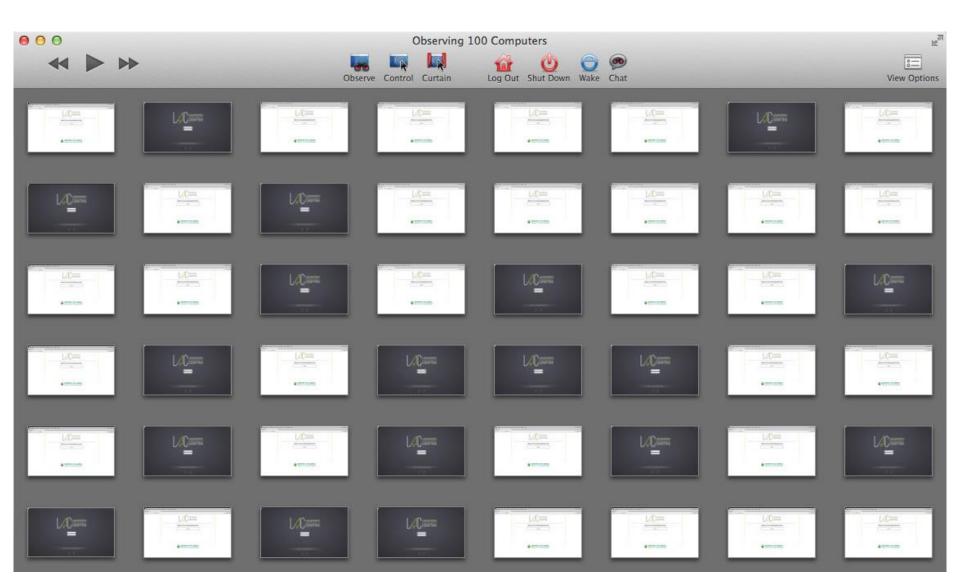
I do not agree





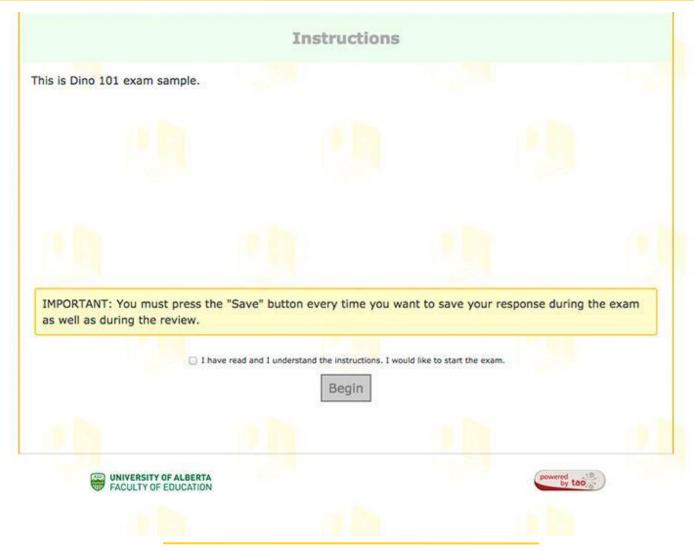
# Remote Monitoring





## Exam Start Page





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1 2 3 4 5 6 7 8 9 10 11 ...







#### Carnotaurus and Tyrannosaurus, pictured here, are an example of

Convergent evolution, because one is a theropod and one is an discard ornithopod.

Shared ancestry, because one is a theropod and one is an ornithopod.
discard

 Convergent evolution, because very short arms evolved independently in abelisaurs and tyrannosaurs.

Shared ancestry, because very short arms evolved independently in abeliaaurs and tyrannosaurs.

Next

Review and submit





#### Please review your answers.

Click on the item below to change answer. After reviewing press "Submit answers" on bottom last page.

11...20 21...30 31...40 41...50 51...60



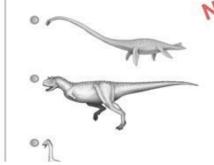


Carnotaurus and Tyrannosaurus, pictured here, are an example of

- Convergent evolution, because one is a theropod and one is an ornithopod.
- Shared ancestry, because one is a theropod and one is an ornithopod.
- Convergent evolution, because very short arms evolved independently in abelisaurs and tyrannosaurs.
- Shared ancestry, because very short arms evolved independently in abelisaurs and tyrannosaurs.

#### #3

The Bearpaw Formation in Alberta is made of rocks deposited in a shallow sear during the Late Cretaceous. Which of these animals could a palaeontologist expect to find in the Bearpaw Formation?



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### Future Directions



■ More MOOCs at University of Alberta

□ Expanding the assessment center

□ Creating a comprehensive online score reporting system to provide instant feedback to students



Thank you!

For questions/comments: bulut@ualberta.ca