



## Tricks, Tips, and Timesavers

**Hyeong Jun Ahn, PhD; Yang Rui, MS;  
Jason Delos Reyes, BS  
Biostatistics Core  
Department of Complementary & Integrative Medicine  
John A. Burns School of Medicine**

1

## What is REDCap?

A secure, HIPAA-compliant, web-based application designed specifically to support data capture for research studies

- Research data collection forms and surveys
- Coordinate multi-site, collaborative studies through SAMS (Secure Access Management System)
- Diverse research applications

2

## REDCap Story

- Common problems for academic biomedical researchers:
  - First, major vendor electronic data capture (EDC) and clinical data management system (CDMS) solutions are targeted and priced for large clinical trials, and can be prohibitively expensive for investigator-initiated studies or other such studies at a smaller scale
  - Secondly, the independent research environment often lacks the informatics and other multidisciplinary support necessary for effective IT integration into research protocols

3

## REDCap Story

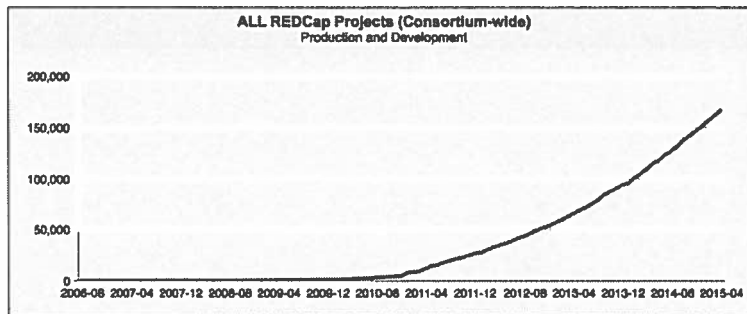
- Created in 2004 by Paul Harris at Vanderbilt University with ongoing support from NCRN and NIH grants
- Currently over 2,384 active institutional partners



4

## REDCap Story

- 419k projects currently in production or development-build status
- 504k active users
- 3516 articles as of 6/1/17



5

## Why are people choosing REDCap over Excel and Access?

- REDCap access is authenticated
  - Using University of Hawaii login name and password
- Secure hosting and regular data backups
  - Data backups, software grades, and system maintenance are handled automatically by JABSOM OIT
  - More on security shortly
- Allows multi site access
  - research teams can input data simultaneously, from across the hall or across the country

6

## Why are people choosing REDCap over Excel and Access?

- Research teams can quickly develop databases
  - Any user can login and start a project
- Research teams have autonomy
  - Creating a new database or survey
  - Assigning user permissions and roles
    - User agreement form should be submitted to REDCap administrator
  - Granting rights for data import and export

7

## REDCap workshop development

- Outreach workshop development targeting beginners since September 2016 (planned to launch in March 2017)
- Face to face hands-on training
- Extended to intermediate and advanced topics
- Online (iTunes U and Google Classroom)

8

## Basic Series

- Background/History
- Project Set up
- Project Instrument
  - Part 1 – *Learn how to create new instrument from scratch, copying/editing fields, field types*
  - Part 2 – *This is a continuation of field types. You will also learn how to use validation, custom alignment, and REDCap shared library*
- Branching Logic – *Introduction to branching logic, point and click branching*
- Piping Variables – *How to pipe into text fields, REDCap e-mails, etc.*
- Field Comment/History Log – *What is it for and how to use it.*

9

## Basic Series (continued)

- Data Dictionary, Import, Export
  - Part 1 – *Introduction to each component*
  - Part 2 – *How to build custom reports*
- **User Rights and Data Access groups**
- Surveys
  - Part 1 – *What is a survey, how to set an instrument to survey*
  - Part 2 – *Custom survey settings*
  - Part 3 – *How to use a public survey link, participant list, and survey invitation log*
- Longitudinal Studies – *Learn what a longitudinal study is, how to activate longitudinal studies, utilize events and arms*

10

## Intermediate Series

- Project Instrument
  - Downloading/Uploading Projects & Instruments
  - Action Tags
- Branching Logic
  - Part 1 – *Branching logic for administrative uses*
  - Part 2 – **Advanced branching using syntax**
- **Piping Variables** – *Learn how to utilize piping to customize matrix type surveys and check boxes. How to pipe across events for longitudinal studies*
- Data Dictionary, Import, Export—*learn how to upload repetitive instrument with data dictionary using data dictionary and Microsoft Excel*

11

## Intermediate Series (continued)

- REDCap Mobile App
- File Repository
- **Data Quality Check**
- Surveys
  - Part 1— *Learn how to set automated invitations based on time and logic/workflow, reminders, piping into survey invitations*
  - Part 2 – *Learn how to set a designating email field within the instrument, set secondary unique identifier, and utilize surveys in a longitudinal setting (participant list)*
- Longitudinal Studies
  - **Setting repeatable instruments and events**
  - Designating email field, setting secondary unique identifiers, utilizing surveys in a longitudinal settings, participant list.

12

## Advanced Series

- Dynamic SQL Link
- API
- Data Entry Trigger

13

How to Access iTunes U Course

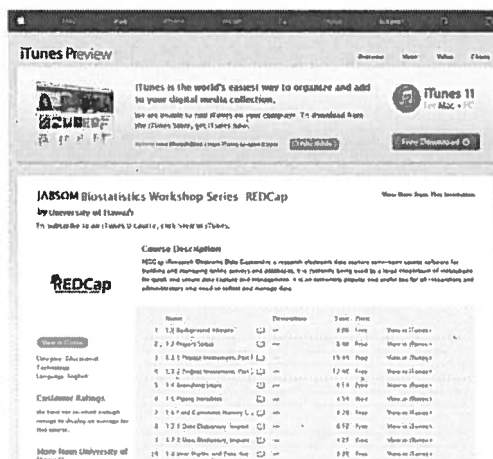
**JABSOM Biostat Workshop Series: REDCAP**

## How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP

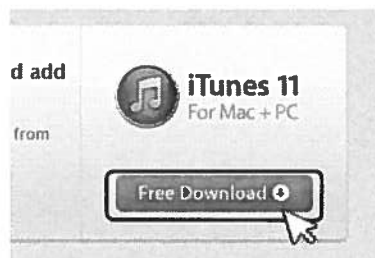
1

Go to following link to view the list of materials:

<https://itunes.apple.com/us/course/jabsom-biostatistics-workshop-series-redcap/id1232079058>



## How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP



2

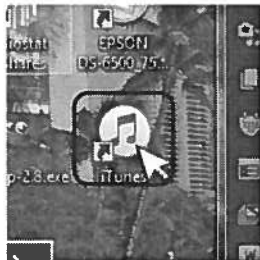
If you don't have iTunes on your computer, click **Free Download** and install iTunes onto your system. Once you have iTunes, or if you already have it installed, proceed to step 3.



### How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP

3

Open in **iTunes** in Windows and Mac, or the **iTunes U** app on an iOS device such as an iPad, iPhone, or iPod Touch.



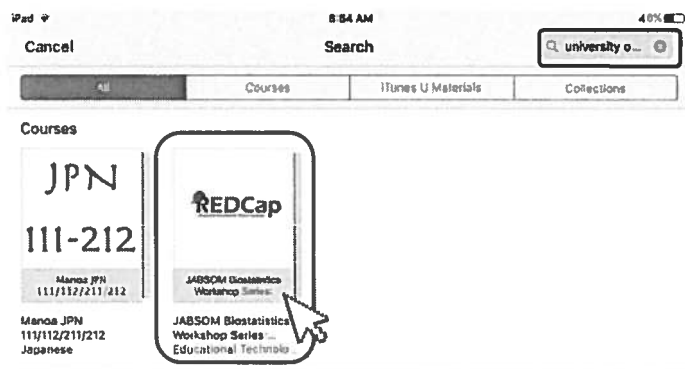
OR



### How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP

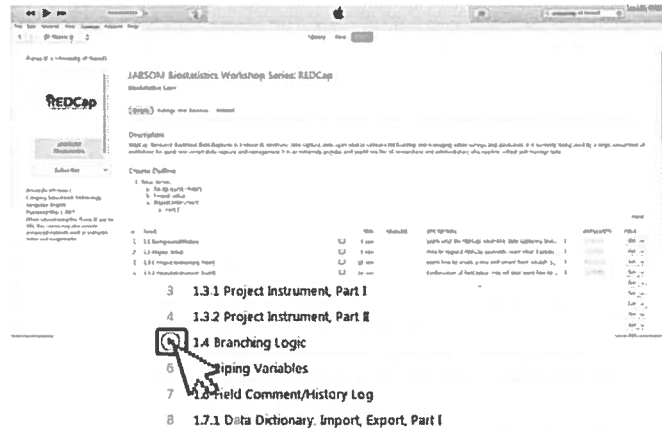
4

On the search bar on the right hand corner, search **"University of Hawaii"**. These two courses should appear; select the one entitled **"JABSOM Biostatistics Workshop Series: REDCap"**. *For iOS devices, skip to step 6.*



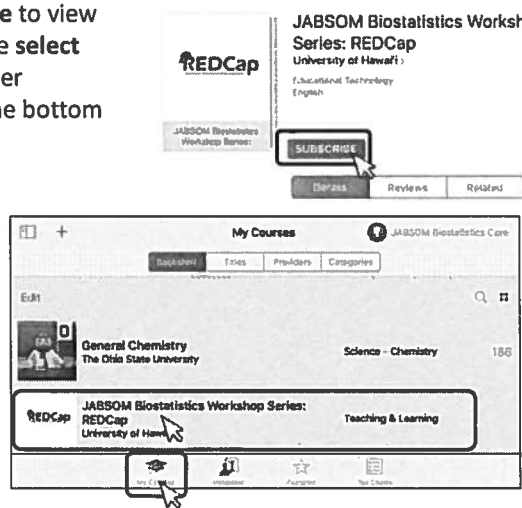
How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP

**5** Navigate through our materials and select the video you would like to view. Hover over the number next to the video and click right-arrow button **play** to view the video. *Skip to step 8.*



How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP

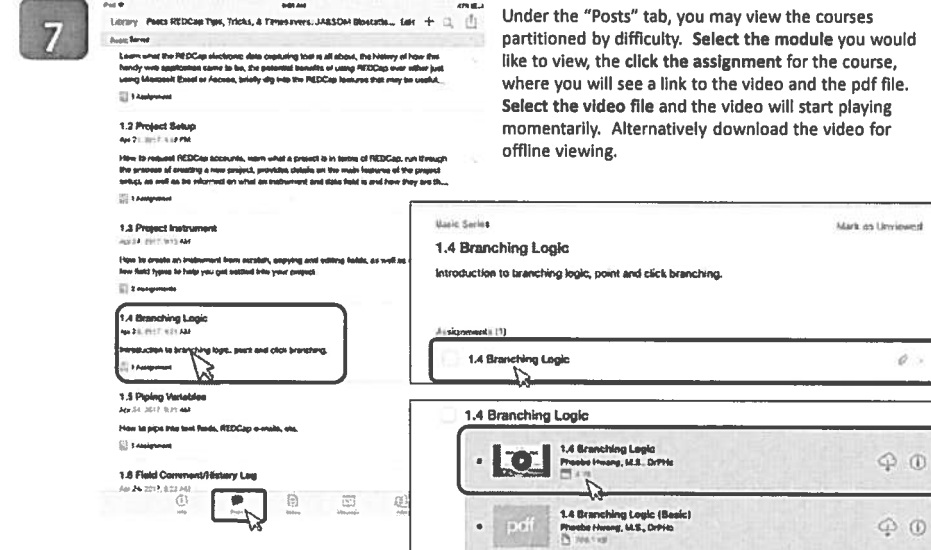
**6** Select **subscribe** to view the course. The select **the course** under "courses" on the bottom panel.



## How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP

**7**

Under the "Posts" tab, you may view the courses partitioned by difficulty. Select the module you would like to view, then click the assignment for the course, where you will see a link to the video and the pdf file. Select the video file and the video will start playing momentarily. Alternatively download the video for offline viewing.

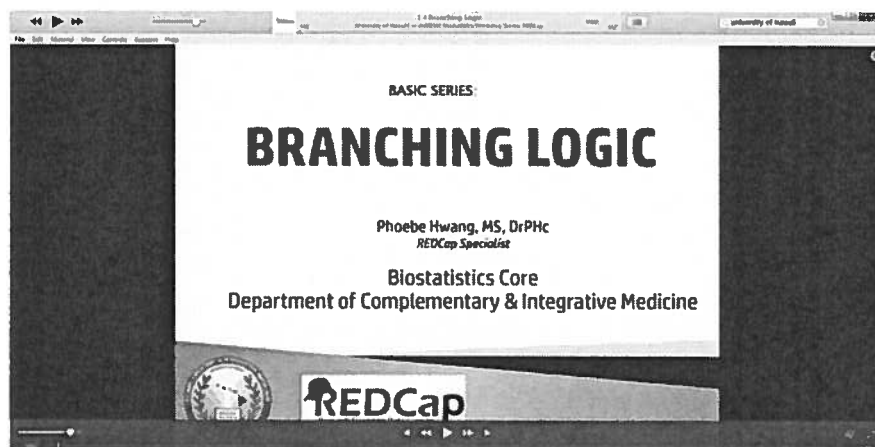


The screenshot shows a course page with a list of assignments. The assignments are organized into a 'Basic Series' and a '1.4 Branching Logic' section. The '1.4 Branching Logic' section contains two assignments: '1.4 Branching Logic' and '1.4 Branching Logic (Basic)'. The '1.4 Branching Logic (Basic)' assignment is highlighted with a red box, and a red box also highlights the '1.4 Branching Logic' assignment above it. The video file '1.4 Branching Logic (Basic)' is also highlighted with a red box.

## How to Access iTunes U Course - JABSOM Biostat Workshop Series: REDCAP

**8**

Select **play** to view the video. You may have to wait a while for the video to load depending on your internet connection speed. When loaded, the video will then begin playing.



## How to Access Google Classroom Course

# JABSOM Biostat Workshop Series: REDCAP

23

## How to Access Google Classroom Course

# JABSOM Biostat Workshop Series: REDCAP

1 Go to Google Classroom: <http://google.com/classroom>



## JABSOM Biostat Workshop Series: REDCAP

2

**Log-in to your UH Google Account.**  
In order to view material on Google Classroom, you must log in with your UH credentials or else the succeeding steps will not work.

Google

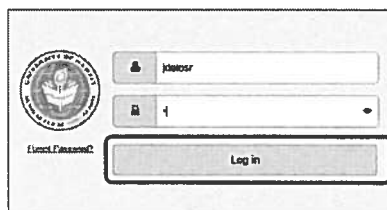
Sign in  
with your Google Account

Email or phone  
jdelosr@hawaii.edu

Forgot email?

More options

NEXT



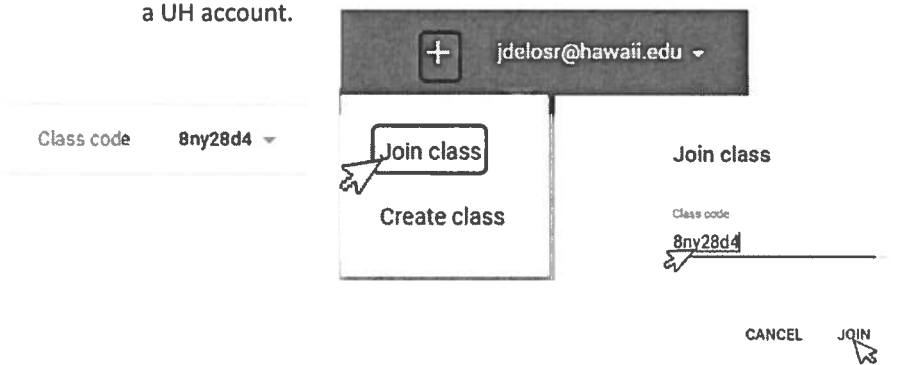
The image shows a login form for a UH Google Account. It features the UH logo on the left. To the right, there are two input fields: the top one contains the email 'jdelosr' and the bottom one contains the number '1'. Below these fields is a 'Log in' button. A mouse cursor is pointing at the 'Log in' button.

25

## JABSOM Biostat Workshop Series: REDCAP

3

**Click the plus (+) icon on the top right hand corner next to your email address. Then select 'Join Class' and enter the class code **8ny28d4**. Class code may change without notice, so please contact us if you are unable to login with a UH account.**



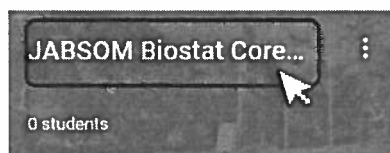
The image shows a Google Classroom interface. At the top, there is a dark header with a plus sign icon and the email 'jdelosr@hawaii.edu'. Below this, a 'Join class' dialog box is open. The dialog has a 'Class code' field with the value '8ny28d4'. There are two buttons: 'Join class' and 'Create class'. A mouse cursor is pointing at the 'Join class' button. To the right of the dialog, there is a 'Join class' label and another 'Class code' field with the value '8ny28d4'. At the bottom right, there are 'CANCEL' and 'JOIN' buttons, with a mouse cursor pointing at the 'JOIN' button.

26

## JABSOM Biostat Workshop Series: REDCAP

4

The *JABSOM Biostat Workshop Series: REDCap* course should now on the left hand corner of the page. Select this course to open it.

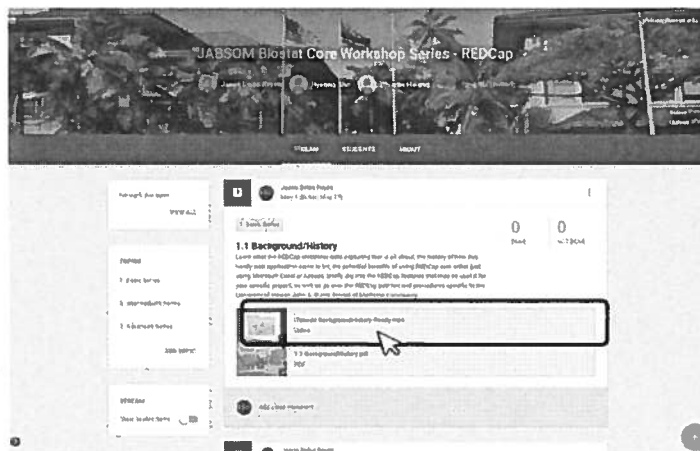


27

## JABSOM Biostat Workshop Series: REDCAP

5

Pick a topic and select the first file in the topic to open the video.



## JABSOM Biostat Workshop Series: REDCAP

- 6** Select the triangular “play” button when the video pops up to start the video. The video will start playing from the beginning and guide you through your selected lecture topic.



29



John A. Burns School of Medicine Biostatistics Core  
 Department of Complementary & Integrative Medicine  
<http://biostat.jabsom.hawaii.edu/>

808-692-1840

30