THE UNIVERSITY OF KANSAS

From CRMDA

Contents

- 1 Statistical Literacy
  - 1.1 Institute Overview
  - 1.2 Objectives
  - 1.3 Audience
  - 1.4 Instructors
  - 1.5 Software and Computer Support
  - 1.6 Syllabus
  - 1.7 Course Files
  - 1.8 Contact Information

Statistical Literacy

Five-day Course • June 3 - 7, 2013• Lawrence, Kansas

Presented by the Quantitative Training Program of Psychology and the Center for Research Methods and Data Analysis at the Univers

Institute Overview

Designed for practitioners. This course provides a conceptual understanding of both basic and advanced statistical concepts and issue understanding and interpreting statistical techniques as commonly applied in the clinical, educational, social, and behavioral sciences.

The five-day institute sessions will be Monday – Friday from 9:00 a.m. to 5:00 p.m. each day.

Objectives

This course teaches the skills necessary to read, interpret and translate basic (ANOVA and Regression) and advanced statistical analy Modeling, Multi-Level Modeling) as referenced in articles, seminars, and other publications. At the end of this course students will be a

- Understand and evaluate published research studies as presented in the media.
- Understand the underlying statistical methods for research-based training.
- Participate in critical conversations with colleagues about research that informs practice.

Audience

Are you interested in learning more about today's statistical topics that inform best practice? If you have a basic statistical background, beneficial. The focus of this course will be on introducing many of the modern statistical methods now commonly used in exploring and best practice in a fun and friendly manner. In addition, this course is designed to promote consumer awareness and provide a persona research and statistical analyses.

Instructors

Vicki Peyton and Patricia H. Hawley (coordinating instructors)

Software and Computer Support

No particular software is needed for this course. However, participants are highly encouraged to bring a laptop computer with the abilit adobe acrobat and Microsoft office.

Syllabus

Statistical Literacy
Vicki Peyton

Patricia H. Hawley
University of Kansas

Monday   **June 3, 2013**
9:00 – 9:30   Welcome and Introductions
9:30 – 11:00   Lies, damned lies, and statistics: Descriptive, Summary Statistics, and Data Displays.
11:00 – 12:00 Correlation
12:00 – 1:30   Lunch *
1:30 – 2:30   Data Visualization and Data Displays
2:30 – 3:30   Effect Size Estimates and Significance Levels
3:30 – 5:00   Individual Consultations
5:00 – 8:30   Social Mixer: Free dinner and open beer/wine bar at Holiday Inn
Tuesday   **June 4, 2013**
9:00 – 10:00   Introduction to General and Generalized Models
10:00 – 12:00 General Regression Models
12:00 – 1:30   Lunch *
1:30 – 3:30   Generalized Regression Models
3:30 – 5:00   Individual Consultations
5:45   Free Bus to Downtown Departs
8:45   Free Bus returns from Downtown
Wednesday   **June 5, 2013**
9:00 – 10:30   Confirmatory Factor Analysis
10:30 – 12: 00Exploratory Factor Analysis
12:00 – 1:30   Lunch *
1:30 – 2:00   Multi-group Confirmatory Factor Analysis
2:00 – 3:30   Introduction to Structural Equation Modeling
3:30 – 5:00   Individual Consultations
5:45   Free Bus to Downtown Departs
8:45   Free Bus returns from Downtown
Thursday   **June 6, 2013**
9:00 – 10:30   Mediator and Moderator Analyses
10:30 – 11:00 Introduction to Dependency Issues in Data Analyses
11:00 – 12:00 Multilevel Models
12:00 – 1:30   Lunch *
1:30 – 2:30   Longitudinal Models
2:30 – 3:30   Dyadic Data Analysis
3:30 – 5:00   Individual Consultations
5:45   Free Bus to Downtown Departs
8:45   Free Bus returns from Downtown
Friday   **June 7, 2013**
9:00 – 10:30   Modern Missing Data Methods
10:30 – 12:00 Meta Analysis
12:00 – 1:30   Lunch *
1:30 – 3:30**   Individual Consultations

* Our group lunch is included in the Holiday Inn room rate and tickets for the group lunch are also available for purchase for those not s
Inn. There are other lunch options in Lawrence as well.
** Feel free to wrap-up with the instructors and head to the airport.

Course Files

Below are links to course files for those who enrolled in the course. *The files are password protected to respect the intellectual propert*
By using your login information you agree not to share your login information or the content protected by it.

(If your browser displays a page of nonsense characters rather than downloading the file simply refresh the page. Sometimes the brow
file rather than downloading it as it should.)

Complete Statistical Literacy Course Files (http://crmda.ku.edu/StatsCamps/literacy/2013/Stats_Camp_2013_Statistical_Litera

01.Lies, damned lies, and statistics: Descriptive, Summary Statistics, and Data Displays.

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/01.Descriptives_StatLit2013.pdf)

02.Correlation

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/02.Correlation_StatLit2013.pdf)

03.Data Visualization and Data Displays

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/03.Displays_StatLit2013.pdf)

04.Effect Size Estimates and Significance Levels

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/04.EffectSize.Significance_StatLit2013.pdf)

05.Introduction to General and Generalized Models

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/05.RegressionIntro_StatLit2013.pdf)

06.General Regression Models

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/06.GeneralRegressionModels_StatLit2013.pdf)
- Erfle(2013)-LinearRegressionNon-normalDist (http://crmda.ku.edu/StatsCamps/literacy/2013/06.reading.Erfle(2013)-LinearRegress

07.Generalized Regression Models

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/07.GeneralizedRegressionModels_StatLit2013.pdf)
- CourtneyBarth(1996)-MultinomialAdoption (http://crmda.ku.edu/StatsCamps/literacy/2013/07.reading.CourtneyBarth(1996)-Multino

08.Confirmatory Factor Analysis

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/08.CFA_StatLit2013.pdf)

09.Exploratory Factor Analysis

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/09.EFA_StatLit2013.pdf)

10.Multi-group Confirmatory Factor Analysis

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/10.MultipleGroupCFA_StatLit2013.pdf)
- Ng(2006)-Physical and cognitive domains of the instrumental activities of daily living (http://crmda.ku.edu/StatsCamps/literacy/2013/
  Physical%20and%20cognitive%20domains%20of%20the%20instrumental%20activities%20of%20daily%20living.pdf)
- Shogren(2007) (http://crmda.ku.edu/StatsCamps/literacy/2013/10.reading.Shogren(2007).pdf)

11.Introduction to Structural Equation Modeling

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/11.IntroSEM_StatLit2013.pdf)

12.Mediator and Moderator Analyses

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/12.MedModAnalyses_StatLit2013.pdf)

13.Introduction to Dependency Issues in Data Analyses

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/13.DependencyIssues_StatLit2013.pdf)

14.Multilevel Models

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/14.MultilevelModels_StatLit2013.pdf)

15.Longitudinal Models

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/15.Longitudinal_StatLit2013.pdf)

16.Dyadic Data Analysis

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/16.DyadicData_StatLit2013.pdf)

17.Modern Missing Data Methods

- Updated Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/18.Updated.Modern_Missing_Data_Methods_StatsLit2013.

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/17.Modern_Missing_Data_Methods_StatsLit2013.pdf)
- Karna(2011)-Evaluation of the KiVa Antibullying Program (http://crmda.ku.edu/StatsCamps/literacy/2013/17.reading.Karna(2011)-E 20the%20KiVa%20Antibullying%20Program.pdf)

18.Meta Analysis

- Lecture Slides (http://crmda.ku.edu/StatsCamps/literacy/2013/18.MetaAnalysis_StatLit2013.pdf)
- Cooper (2003) - Editorial (http://crmda.ku.edu/StatsCamps/literacy/2013/18.reading.Cooper%20(2003)%20-%20Editorial.pdf)
- Field & Gillett (2010) How to do a meta-analysis (http://crmda.ku.edu/StatsCamps/literacy/2013/18.reading.Field%20and%20Gillett 20to%20do%20a%20meta-analysis.pdf)
- Glass (1976) - Primary, secondary, and meta-analysis research (http://crmda.ku.edu/StatsCamps/literacy/2013/18.reading.Glass%2 20Primary%20secondary%20and%20meta-analysis%20research.pdf)
- Gray-Little & Hafdahl (2000) factors influencing racial comparisons (http://crmda.ku.edu/StatsCamps/literacy/2013/18.reading.Gray 20Hafdahl%20(2000)%20factors%20influencing%20racial%20comparisons.pdf)
- Hedges & Vevea (1998) - Fixed and random effects models in meta-analysis (http://crmda.ku.edu/StatsCamps/literacy/2013/18.rea 20Vevea%20(1998)%20-%20Fixed%20and%20random%20effects%20models%20in%20meta-analysis.pdf)
- Kranke (2010) - Evidence-based practice (http://crmda.ku.edu/StatsCamps/literacy/2013/18.reading.Kranke%20(2010)%20-%20Ev 20practice.pdf)
- Maxwell & Cole (1995) - Tips for writting (http://crmda.ku.edu/StatsCamps/literacy/2013/18.reading.Maxwell%20and%20Cole%20(1 20for%20writting.pdf)

Contact Information

For information on course content, contact Vicki Peyton (mailto:vpeyton@ku.edu) .
A full list of prices and fellowship opportunities for this course and all the courses offered at this year's Summer Institutes in Statistics c **and Registration Page**.

Retrieved from "http://crmda.ku.edu/main/Statistical_Literacy"

Views

Welcome to the CRMDA
KU Home
CRMDA Home
Computing Documentation
Events Calendar
Contact Info

About Us
Overview
People
Advisory Board
Donate

Consulting Services
Request an Appointment
Services Provided
Fee Structure
Forms
FAQ

Resources
KUant Guides
Presentations
KUant Tools
Calculators
Figures
Supplemental Materials
Statistical Library
Links

Educational Opportunities
Saturday Seminar Series
Summer Institutes in Statistics

Weekly Colloquium
Graduate Programs
SBSM Undergraduate Minor

Research
REDCap
Methods Workgroups
CRMDA Curriculum Vitae

Outreach
APA Div. 5 Review Form
Guilford Press
Oxford University Press

Center for Research Methods and Data Analysis
1425 Jayhawk Blvd.
Watson Library, 470
Lawrence , KS 66045 -7556
Phone: (785) 864-3353
Or e-mail: quant@ku.edu