

2018 AP Statistics Summer Institute
Advanced Placement Statistics Workshop
Augsburg University

Consultant

Chris Olsen

phone: 319-365-7473

COlsen@mchsi.com

Meeting Location

Oren Gateway Center, Augsburg University

Check in at Oren Lobby, room location to follow

Course Overview

While it may be difficult to imagine right now, there will come a time when your students will put down their pencils for the summer. Unfortunately, this luxury is not afforded to you; at least not during June 19 - 22, when you will be joining me at Augsburg University for an AP Statistics Institute -- your pencils will be quite busy. I am very much looking forward to meeting you and having the opportunity to discuss AP Statistics.

I would like to mention a bit of the plan for you for the week. We will provide coverage of the four major themes of AP Statistics: exploratory analysis, planning and executing studies, probability and random variables, and statistical inference. The use of technology will be stressed and demonstrated during the course of the week. **(Be sure to bring your calculators and an 8G flash drive.)** We will discuss topics in the AP Statistics syllabus and the course philosophy. Those of you who are experienced AP Statistics teachers will not be bored! I will bring lots of take-it-into-the-class-on-Monday resources and activities. This summer I would like to focus a bit more than usual in the ideas of random selection, random assignment, and power.

Every group of teachers has its own personality, and I always plan to be flexible and responsive to individual needs – and for this to happen, your input is crucial. You will see that I have appended a questionnaire for you to fill out. Based on the information you provide; I will fill in the last details for the week. If I have not asked the right questions, please feel free to scribble at will (or e-mail) and tell me how you can best benefit from the Institute. The more detail you can provide, the better I can match what we do to what will be most helpful to you.

See you this summer!

P.S. I will have a freeware statistical software program to give out. If you bring a District laptop with you please have the latest Java installed in order to use the software.

Accommodations & Accessibility

If you need accommodations because of a disability, please contact the CLASS Office 612-330-1053 or stop by the Gage Center welcome desk on the link level of the Lindell Library.

General sequence of statistical topics follows

Day 1: Our first day will be a plunge into the analysis of data. We will analyze data sets designed to highlight the important descriptive and inferential techniques, univariate and bivariate, in the AP Statistics course. The data sets are long on interest, and are classroom-ready.

Day 2: Our second day will be a tour of Experimental Design (completely randomized design and randomized block design) and Sampling techniques (simple, stratified, cluster, systematic). We will focus on the decisions involved in choosing an experimental design strategy, methods of control of potentially confounding variables, and what factors would lead one to particular choices of an appropriate sampling design.

Day 3/4: Our third and fourth days will focus on probability and random variables, and their role in statistical inference. We will explore the logic of statistical inference (hypothesis testing and confidence intervals). Then we will show how this logic threads its way through inferences about means, proportions, slopes in regression, and inferences about categorical data.

Interspersed with the content described above we will consider the philosophy of the AP Statistics course as an active encounter with data, and how this affects teaching strategies. Come armed and ready to get out of your seats! The structure and content of the AP syllabus will be examined, and of course the preparation of students for the AP Statistics Exam will be a continuing concern.

Participant Information Sheet

Please Return to Chris Olsen as soon as possible

By mail: Chris Olsen, 1750 34th St. SE, Cedar Rapids, IA 52403

By email: COlsen@mchsi.com

Name: _____ email: _____

School Name: _____

Teaching experience (what math/statistics courses, what level, how long, etc.):

Books you have used in statistics classes you have taught: _____

Education (undergraduate and above – institution, major, dates, degree): _____

College-level (or above) statistics courses you have taken: _____

What topics do you would you most like to see discussed in this workshop? _____

What is the main benefit you hope to gain from the workshop? _____
