PubH 6638
Excel® and Access® skills in public health settings
Spring 2017

Credits:	**1**
Meeting Days:	**Wednesday (first 7 weeks of the semester)**
Meeting Time:	**1:25 pm – 3:20 pm**
Meeting Place:	**Mayo A110**
Instructor:	**Claudia Munoz-Zanzi**
Office Address:	**484 WBOB**
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Office Hours:	**By appointment**

I.   Course Description

This is a hands-on course on computer skills to learn a wide range of methods to manipulate public health data. Students will be given "raw" datasets and practice computer methods to clean, filter, recode, combine, tabulate and report data within the Excel and Access environments. The course is ideal for students who may not pursue more advanced quantitative training but still want to feel comfortable using these widely available programs to produce quality datasets for further analysis, and to generate summary results or reports in their work as public health practitioners.

II.   Course Prerequisites

None

III.   Course Goals and Objectives

1)   To gain necessary computer skills to efficiently manipulate raw public health data and perform procedures to clean, validate, recode, summarize, and report data.

2)   To become familiar with commonly used software (Microsoft Excel and Access) for data manipulation and management.

3)   To gain experience in oral and visual reporting of summarized public health data.

IV. Methods of Instruction and Work Expectations

Weekly lectures (7) with in-class computer exercises. Students will work on an assigned task each session while following instructions and demonstrations by the instructor. Students will be asked to complete the assigned weekly work and submit for credit towards passing the course.

A laptop computer is needed for each student. SPH laptops with the necessary software (Excel and Access) will be made available for students who cannot bring one to class.

Privately-own laptops need to have Excel and Access installed.

Microsoft Office 365 ProPlus with Excel and Access is available to registered University of Minnesota students at no charge.

OIT website:

http://it.umn.edu/services/all/computer-device-support/purchasing/software/office/index.htm

For homework and/or practice outside class time, computers with Excel and Access are available free of charge at the Student Sphere Lounge in Moos (for SPH graduate students only), the EpiCH Student Lounge, and the Blegen 440 and Coffman computer laboratories in the East Bank.

Students using their own laptops should have the software installed and ready to work before the first day of class. Contact the instructor prior to the first day of class if you have any questions aboutobtaining and/or installing software.

V. Course Text and Readings

Files with public health datasets and handouts will be uploaded to Moodle prior to each class.

We will not follow a specific book but the following are resources that will be referenced throughout the course.

Required readings for specific lectures will come from this list and stated in the class schedule below as appropriate. Links to library resources and tutorial modules will be posted in Moodle.

Books or printed resources:

Excel® 2010 Formulas. John Walkenback. Wiley Publishing, Hoboken, NJ. (e-book access from the University of Minnesota Library).

Excel® 2013 Bible. John Walkenback. Wiley Publishing, Hoboken, NJ. (e-book access from the University of Minnesota Library).

Access® 2013 Bible. Michael Groh. Wiley Publishing, Hoboken, NJ. (e-book access from the University of Minnesota Library).

Online resources:

Microsoft Office Tutorials for Excel:

http://office.microsoft.com/en-us/excel-help/training-courses-for-excel-2013-HA104032083.aspx

Microsoft Office Tutorials for Access:

http://office.microsoft.com/en-us/access-help/training-courses-for-access-2013-HA104030993.aspx

VI. Course Outline/Weekly Schedule

WEEK 1: 1/18/17

Introduction to use of filters, formulas and built-in functions for data entry, exploration, and quality control in Excel. Advanced formulas in Excel for recoding, creation of new variables, and creation of summary outputs and tables

In-class exercise (Assignment No. 1-1, 1-2): Cleaning, exploring, and preparing toxoplasmosis survey data

Recommended Reading: Excel 2010® Formulas, Chapter 10: Basic Facts about Formulas. Pages: 39-61.

WEEK 2: 1/25/17

Use of Pivot tables for data exploration and creation of summary tables.

In-class exercise (Assignment No. 2): Pivot tables for summarizing health data

Due: Assignment No. 1 (upload to Moodle by 1:25 PM).

Required Reading: A. Catlin et al. Sankofa pediatric HIV disclosure intervention cyber data management: building capacity in a resource-limited setting and ensuring data quality. AIDS Care. 2015; 27, S1: 99–107

Recommended Reading: Excel® 2013 Bible, Chapter 33: Introducing Pivot tables.

WEEK 3: 2/1/17

Visualizing and summarizing data using charts, creating and updating reports directly from Excel.

In-class exercise (Assignment No. 3): Charts and visual displays

Individual project assignment: Preparing and presenting a one-page summary report on infectious disease prevention practices among farmers and slum residents from Chile.

Each student will be assigned a raw dataset from 5 different options.

Due: Assignment No. 2 (upload to Moodle by 1:25 PM).

Recommended Reading: Excel® 2013 Bible, Chapter 19: Getting started making charts.

WEEK 4: 2/8/17

Individual presentations of one-page summary reports from Individual project Assignment.

Due: Assignment No. 3 (upload to Moodle by 1:25 PM).

Due: Individual project Assignment (upload to Moodle by 1:25 PM).

WEEK 5: 2/15/17

Microsoft Access: creating and importing tables, managing data projects.

In-class exercise (Assignment No. 4): Database development for managing multi-center data – Part 1

(Recommended) Watch Microsoft on-line Tutorial: Design and build tables for a database (Access basics, part 1)

- Key concepts and terms (4:35 mins)
- Start a new database from a blank template (4:09 mins)

WEEK 6: 2/22/17

Microsoft Access: creating relationships between multiples tables, use of queries, and creation of new datasets by combining variables from different tables.

In-class exercise (Assignment No. 5): Database development for managing multi-center data – Part 2

Due: Assignment No. 4 (upload to Moodle by 1:25 PM).

WEEK 7: 3/1/17

Demonstration of add-in programs in Excel and additional on-line resources.

Final project:

In-class component (1.5 hours): Upload to Moodle by 3:20 PM on 3/1/17 (end of class time).

At-home component: Due on 3/8/17 (upload to Moodle by 5:00 PM)

Due: Assignment No. 5 (upload to Moodle by 1:25 PM).

VII. Evaluation and Grading

Maximum possible score is 100, distributed as follows:

<u>Five assignments (10 points each):</u> Students will begin work on the assignment during class and will be due at 1:20 PM the following week. Late assignments will lose 1 point (out of 10) per day unless prior arrangements are made with the instructor.

<u>Individual class project assignment (15 points):</u> One page summary report from raw dataset. Late assignment will lose 1 point (out of 15) per day unless prior arrangements are made with the instructor.

<u>Group sharing of summary report from Individual class project (5 points):</u> This is a brief presentation of the prepared summary report simulating typical reporting during a team meeting in a work setting.

<u>Computer-based final exam (30 points):</u> The final exam will consist of 2 parts, an in-class part that needs to be submitted during class (10 points) and a take-home part due the following week (20 points). Late submissions for either part will lose 1 point per day unless prior arrangements are made with the instructor.

Final grades will be assigned as follows:

100.0 - 92.5	A	Represents achievement that is outstanding relative to the level necessary to meet course requirements
90.0 - 92.4	A-	
87.5 - 89.9	B+	Represents achievement that is significantly above the level necessary to meet course requirements
82.5 - 87.4	B	
80.0 - 82.4	B-	
77.5 - 79.9	C+	
72.5 - 77.4	C	Represents achievement that meets the course requirements in every respect
70.0 - 72.4	C-	
67.5 - 69.9	D+	
62.5 - 67.4	D	Represents achievement that is worthy of credit though it fails to meet fully the course requirements
60.0 - 62.4	D-	
< 60	F	Represents failure and signifies that the work was completed but not a level of achievement worthy of credit.
S		Represents achievement that is satisfactory, which is equivalent to a C- or better
N		Represents no credit and signifies that the work was not completed at a satisfactory level of achievement and carries no grade points.

For additional information, please refer to:
http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html.

Course Evaluation
The SPH will collect student course evaluations electronically using a software system called CoursEval: www.sph.umn.edu/courseval. The system will send email notifications to students when they can access and complete their course evaluations. Students who complete their course evaluations promptly will be able to access their final grades just as soon as the faculty member renders the grade in SPHGrades: www.sph.umn.edu/grades. All students will have access to their final grades through OneStop two weeks after the last day of the semester regardless of whether they completed their course evaluation or not. Student feedback on course content and faculty teaching skills are an important means for improving our work. Please take the time to complete a course evaluation for each of the courses for which you are registered.

Incomplete Contracts
A grade of incomplete "I" shall be assigned at the discretion of the instructor when, due to extraordinary circumstances (e.g., documented illness or hospitalization, death in family, etc.), the student was prevented from completing the work of the course on time. The assignment of an "I" requires that a contract be initiated and completed by the student before the last official day of class, and signed by both the student and instructor. If an incomplete is deemed appropriate by the instructor, the student in consultation with the instructor, will specify the time and manner in which the student will complete course requirements. Extension for completion of the work will not exceed one year (or earlier if designated by the student's college). For more information and to initiate an incomplete contract, students should go to SPHGrades at: www.sph.umn.edu/grades.

University of Minnesota Uniform Grading and Transcript Policy
A link to the policy can be found at onestop.umn.edu.

VIII. Other Course Information and Policies

Grade Option Change (if applicable):
For full-semester courses, students may change their grade option, if applicable, through the second week of the semester. Grade option change deadlines for other terms (i.e. summer and half-semester courses) can be found at onestop.umn.edu.

Course Withdrawal:
Students should refer to the Refund and Drop/Add Deadlines for the particular term at onestop.umn.edu for information and deadlines for withdrawing from a course. As a courtesy, students should notify their instructor and, if applicable, advisor of their intent to withdraw.

Students wishing to withdraw from a course after the noted final deadline for a particular term must contact the School of Public Health Office of Admissions and Student Resources at sph-ssc@umn.edu for further information.

Student Conduct Code:
The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community.

As a student at the University you are expected adhere to Board of Regents Policy: *Student Conduct Code*. To review the Student Conduct Code, please see: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf.

Note that the conduct code specifically addresses disruptive classroom conduct, which means "engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."

Use of Personal Electronic Devices in the Classroom:
Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. To this end, the University establishes the right of each faculty member to determine if and how personal electronic devices are allowed to be used in the classroom. For complete information, please reference: http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html.

Scholastic Dishonesty:
You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see: http://policy.umn.edu/Policies/Education/Education/INSTRUCTORRESP.html.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: http://www1.umn.edu/oscai/integrity/student/index.html. If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.

Makeup Work for Legitimate Absences:
Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see: http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html.

Appropriate Student Use of Class Notes and Course Materials:
Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see: http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html.

Sexual Harassment:
"Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents Policy: http://regents.umn.edu/sites/default/files/policies/SexHarassment.pdf

Equity, Diversity, Equal Opportunity, and Affirmative Action:
The University will provide equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents Policy: http://regents.umn.edu/sites/default/files/policies/Equity_Diversity_EO_AA.pdf.

Disability Accommodations:
The University of Minnesota is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center Student Services is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact DRC at 612-626-1333 or drc@umn.edu to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with DS and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course.

For more information, please see the DS website, https://diversity.umn.edu/disability/.

Mental Health and Stress Management:
As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. University of Minnesota services are available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website: http://www.mentalhealth.umn.edu.

The Office of Student Affairs at the University of Minnesota:
The Office for Student Affairs provides services, programs, and facilities that advance student success, inspire students to make life-long positive contributions to society, promote an inclusive environment, and enrich the University of Minnesota community.
Units within the Office for Student Affairs include, the Aurora Center for Advocacy & Education, Boynton Health Service, Central Career Initiatives (CCE, CDes, CFANS), Leadership Education and Development – Undergraduate Programs (LEAD-UP), the Office for Fraternity and Sorority Life, the Office for Student Conduct and Academic Integrity, the Office for Student Engagement, the Parent Program, Recreational Sports, Student and Community Relations, the Student Conflict Resolution Center, the Student Parent HELP Center, Student Unions & Activities, University Counseling & Consulting Services, and University Student Legal Service.

For more information, please see the Office of Student Affairs at http://www.osa.umn.edu/index.html.

Academic Freedom and Responsibility: *for courses that do <u>not</u> involve students in research:*
Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.*

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, (Dr Kristin Anderson, SPH Dean of Student Affairs), or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

* Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".

Student Academic Success Services (SASS): http://www.sass.umn.edu:
Students who wish to improve their academic performance may find assistance from Student Academic Support Services.   While tutoring and advising are not offered, SASS provides resources such as individual consultations, workshops, and self-help materials.

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