 **University of Texas at Arlington**

**School of Social Work**

**SOCW 6341:** Advanced Statistical Methods in Human Services

Spring 2015

**Instructors:** Dr. Ling Xu and Dr. Mike Killian

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**Faculty Profile:**

Dr. Xu: <https://www.uta.edu/profiles/ling-xu>

Dr. Killian: <https://www.uta.edu/profiles/michael-killian>

**Office Hours:**

Dr. Xu: Tuesdays, 11:00am-12:00pm, and by appointment

Dr. Killian: Fridays, 11:00am-12:00pm, and by appointment

**Section Information:** SOCW 6341 – 001 - Advanced Statistical Methods in Human Services

**Time and Place of Class Meetings:** Social Work Building A, Room 114

**Description of Course Content:** Advanced statistical applications in the human services. Emphasis on multivariate statistical approaches including multiple regression analysis, logistic regression, and advanced general linear modeling approaches to analyzing data from social work research. Prerequisite: SOCW 6347.

**Student Learning Outcomes:**

1. To increase the student’s understanding of the role of research and advanced statistics in social work practice, theory construction, and policy formation
2. To increase the student’s ability to interpret, utilize and analyze advanced statistical outcomes presented in empirical studies in social science
3. To increase the ability of students to match appropriate advanced statistical procedures to type of data, and research questions
4. To increase the student’s ability to perform advanced statistical analyses using SPSS software
5. To increase the ability of students to interpret research outcomes based on their statistical results

**Required Textbooks and Other Course Materials:**

Required:

Abu-Bader, S. H. (2010).*Advanced & multivariate statistical methods for social science*. Chicago: Lyceum Books Inc.

Suggested additional materials:

Randolph, K. A., & Myers, L. L. (2013). *Basic statistics in multivariate analysis*. New York: Oxford University Press.

Orme, J. G., & Combs-Orme, T. (2009). *Multiple regression with discrete dependent variables.* New York: Oxford University Press.

Dattalo, P. (2013). *Analysis of multiple dependent variables.* New York: Oxford University Press.

**Descriptions of major assignments and examinations:** The major assignments in the course consist of weekly homework projects, two exams, and one final submission of an abstract to a major social work research conference. Weekly homework assignments, assigned after class on Tuesday, are each due by Sunday at midnight for each week they are assigned.

**Attendance:** At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students’ academic performance, which includes establishing course-specific policies on attendance. As the instructors of this section, we acknowledge that your attendance and participation are essential. Although the expectation for Ph.D. level study is perfect attendance, any student who misses more than (3) scheduled classes will receive an “F” in the class. In the event of extenuating circumstances, please notify an instructor ahead of time, to the degree that it is possible.

**Grading**: The grade in this course will be determined through weekly assignments, two examinations, and a final project submission:

Weekly assignments: 40%

Midterm exam: 20%

Final exam: 30%

Final project submission: 10%

Grading Scale:

90% – 100% = A

80% – 89% = B

70% – 79% = C

60% – 69%= D

< 60% = F

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Title IX:** The University of Texas at Arlington is committed to upholding U.S. Federal Law “Title IX” such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents’ Rule* 50101, §2.2, suspected violations of university’s standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located on the south side of this building directly outside the classroom. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

**Student Support Services**:UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

**Course Schedule**

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| --- | --- | --- | --- | --- | --- |
| Week | Class Date | Topic | Readings | Weekly Lead Instructor | Assignments |
| 1 | Jan., 20 | ANOVA and GLM | Ch. 1 and 2 | Killian | Weekly HW 1 due by 1/25 |
| 2 | Jan., 27 | Two-Way ANOVA and interactions | Ch. 6 | Killian | Weekly HW 2 due by 2/1 |
| 3 | Feb., 3 | ANCOVA | Ch. 7 | Xu | Weekly HW 3 due by 2/8 |
| 4 | Feb., 10 | Repeated measures ANOVA | Ch. 8 | Killian | Weekly HW 4 due by 2/15 |
| 5 | Feb., 17 | MANOVA and MANCOVA | Ch. 9 | Xu | Weekly HW 5 due by 2/22 |
| 6 | Feb., 24 | OLS Regression and GLM | Ch. 2 and 3 | Killian | Weekly HW 6 due by 3/1 |
| 7 | Mar., 3 | Exam 1 | - | - | - |
| 8 | Mar., 10 | Spring Break | - | - | - |
| 9 | Mar., 17 | Multiple Regression | Ch. 4 | Xu | Weekly HW 7 due by 3/22 |
| 10 | Mar., 24 | Multiple Regression | Ch. 4 | Killian | Weekly HW 8 due by 3/29 |
| 11 | Mar., 31 | Logistic Regression – Odds Ratios | Ch. 5 | Killian | Weekly HW 9 due by 4/5 |
| 12 | Apr., 7 | Logistic Regression | Ch. 5 | Killian | Weekly HW 10 due by 4/12 |
| 13 | Apr., 14 | Logistic Regression (special cases) | Ch. 5 | Xu | Weekly HW 11 due by 4/19 |
| 14 | Apr., 21 | Logistic Regression (special cases) | Ch. 5 | Xu | Weekly HW 12 due by 4/26 |
| 15 | Apr., 28 | HLM | Handout | Xu | Weekly HW 13 due by 5/3 |
| 16 | May 5 | Exploratory Factor Analyses and GLM | Handout | Killian | Weekly HW 14 due by 5/10 |
| 17 | May 12 | Finals week, Tuesday, 2:00-4:30pm |  |  | Final Exam |

As the instructors for this course, we reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.

**Emergency Phone Numbers**: In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911.

For non-emergencies, contact the UTA PD at 817-272-3381.

Faculty members should feel free to incorporate any of the following information into your course syllabus or other course materials.

Library Home Page <http://www.uta.edu/library>

Subject Guides <http://libguides.uta.edu>

Subject Librarians <http://www.uta.edu/library/help/subject-librarians.php>

Database List <http://www.uta.edu/library/databases/index.php>

Course Reserves <http://pulse.uta.edu/vwebv/enterCourseReserve.do>

Library Tutorials <http://www.uta.edu/library/help/tutorials.php>

Connecting from Off- Campus <http://libguides.uta.edu/offcampus>

Ask A Librarian [http://ask.uta.edu](http://ask.uta.edu/)

The following URL houses a page where we have gathered many commonly used resources needed by students in online courses: <http://www.uta.edu/library/services/distance.php>.

The subject librarian for your area can work with you to build a customized course page to support your class if you wish. For examples, visit <http://libguides.uta.edu/os> and <http://libguides.uta.edu/pols2311fm> . If you have any questions, please feel free to contact Suzanne Beckett, at [sbeckett@uta.edu](mailto:sbeckett@uta.edu) or at 817.272.0923.