Syllabus
Surveying and Mapping (FOR 223.001, 223.020)
(Spring 2018)

Instructor: Dr. Yanli Zhang
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Email: zhangy2@sfasu.edu
Phone: (936) 468-2157

Lecture Tuesday and Thursday 9:30AM-10:20AM, Forestry 102
Lab Thursday 12:30 PM – 3:15 PM, Forestry 108
Office hours: Tuesday 1:00pm -3:30pm, Wednesday 8:30am-12:00pm, 1:00pm–5:00pm

Class news/notices, lecture handouts and grades: All lecture handouts are available at D2L (https://d2l.sfasu.edu/). It is students’ responsibility to print handouts before coming to class. Grades for quizzes, labs, and exams are all available at D2L as well. Please check D2L for course related news and notices.

Course Description: 3 semester hours, 2 hours lecture and 3 hours lab per week. The course is designed to introduce the student to the principles and methods of land surveying and associated map production techniques. Elementary plane surveying procedures will be emphasized in this curriculum. Geodetic principles will also be incorporated into the discussion of the Global Positioning System. The course will include proven field procedures for data collection in the field, the analysis of the data collected, and the final product and conclusion of the analyzed data. Students should develop a working knowledge of field procedures, instrument use, field data reduction, map making, and accuracies of their work as the course progresses.

Program Learning Outcomes:
A. Demonstrate understanding and competency of land surveying principles;
B. Demonstrate understanding and competency of land surveying practices;
C. Demonstrate understanding and competency of surveying filed instruments.

Student learning outcomes
Upon successful completion of the course, the student will:
A. Understand land surveying theory and principles (PLO A);
B. Be familiar with land surveying methods (PLO B C);
C. Be able to use different land surveying instruments (PLO C);
D. Have demonstrated competency in oral and written communication skills through lab reports and class discussions.

Prerequisites:
Two years of high school algebra, one year of geometry, and MATH 143. MATH 220 is strongly recommended. Knowledge of calculator use in Trigonometry functions, rectangular to polar convergence, angular convergence, and other mathematical functions.
Textbook and required supplies

1. Hard hat
2. Scientific calculator
3. Field note book
4. Automatic pencil (0.5mm/0.7mm)
5. 3H-4H lead (0.5mm/0.7mm, corresponding to pencil)
6. Engineer’s scale

Tentative course calendar

<table>
<thead>
<tr>
<th>Wk.</th>
<th>date</th>
<th>Topic</th>
<th>Lab</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1.16.2018</td>
<td>1. Syllabus and course overview</td>
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<tr>
<td></td>
<td>1.18.2018</td>
<td>2. Survey introduction</td>
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<tr>
<td>2</td>
<td>1.23.2018</td>
<td>3. Required math review</td>
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<tr>
<td></td>
<td>1.25.2018</td>
<td>4. Azimuth and compass</td>
<td>lab 1: pacing</td>
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<tr>
<td>3</td>
<td>1.30.2018</td>
<td>5. Azimuth and bearing 1</td>
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<tr>
<td></td>
<td>2.1.2018</td>
<td>6. Azimuth and bearing 2</td>
<td>lab 2: compass &amp; pacing</td>
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<tr>
<td>4</td>
<td>2.6.2018</td>
<td>7. Distance measurement 1</td>
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<tr>
<td></td>
<td>2.8.2018</td>
<td>8. Distance measurement 2</td>
<td>lab 3: taping</td>
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<tr>
<td>5</td>
<td>2.13.2018</td>
<td>9. Azimuth and bearing in homework</td>
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<td></td>
<td>2.15.2018</td>
<td>10. Distance measurement 3 (HM)</td>
<td>lab 4: total station 1</td>
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<td>6</td>
<td>2.20.2018</td>
<td>11. Traverse 1</td>
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<td></td>
<td>2.22.2018</td>
<td>12. Traverse 2</td>
<td>lab 5: total station 2</td>
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<td>7</td>
<td>2.27.2018</td>
<td>13. Traverse 3</td>
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<td></td>
<td>3.1.2018</td>
<td>14. Area 1</td>
<td>lab 6: total station 3</td>
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<td>8</td>
<td>3.6.2018</td>
<td>15. Area 2</td>
<td></td>
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<tr>
<td>9</td>
<td>3.13.2018</td>
<td>Spring Break</td>
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<td></td>
<td>3.15.2018</td>
<td>Spring Break</td>
<td></td>
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<tr>
<td>10</td>
<td>3.20.2018</td>
<td>17. Deed 1</td>
<td></td>
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<tr>
<td></td>
<td>3.22.2018</td>
<td>18. Deed 2</td>
<td>lab 7: Appraisal district</td>
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<td>11</td>
<td>3.27.2018</td>
<td>19. Deed 3</td>
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<td></td>
<td>3.29.2018</td>
<td>Easter Holiday</td>
<td>Easter Holiday</td>
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<tr>
<td>12</td>
<td>4.3.2018</td>
<td>20. Leveling 1</td>
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<td></td>
<td>4.5.2018</td>
<td>21. Leveling 2</td>
<td>lab 8: leveling 1</td>
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<td>13</td>
<td>4.10.2018</td>
<td>22. Leveling 3</td>
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<td>4.26.2018</td>
<td>27. 3S (GIS, GNSS, RS) with survey</td>
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<td>16</td>
<td>5.1.2018</td>
<td>28. management &amp; ethical issues</td>
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<td></td>
<td>5.3.2018</td>
<td>Course review</td>
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<tr>
<td>17</td>
<td>5.10.2018</td>
<td>Final exam (8am-10am, Thursday)</td>
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Course Requirements:
There will be 2 closed book exams, 3 home works, and 10 labs. Due to the nature of this class, no labs will be made up unless there is a valid university excuse (health, family emergencies, or student participation in approved university-sponsored events) (http://www.sfasu.edu/policies/class-attendance-and-excused-absence.pdf) and the lab(s) can be re-arranged. Also it is the student’s responsibility to organize a team to work on the missed lab(s).

Sharing of tools, calculator, notes, etc., is NOT allowed during exams.

Students are required to take proper care of the lab instruments.

Grading policy

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<th>Points</th>
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<tbody>
<tr>
<td>EXAMS</td>
<td>450</td>
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<tr>
<td>HOMEWORK</td>
<td>120</td>
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<tr>
<td>LAB ASSIGNMENTS</td>
<td>400</td>
</tr>
<tr>
<td>ATTENDANCE</td>
<td>30</td>
</tr>
<tr>
<td>TOTAL POINTS</td>
<td>1000</td>
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If lab(s) is canceled due to weather or other conditions, corresponding points will be deducted from the total points. Attendance will be taken 3 times during the semester. One absence without valid university excuse (consult student handbook for guidelines) will result in 0 credit for attendance.

Grading Scale:

- A       900 – 1000
- B       800 – 899
- C       700 – 799
- D       600 – 699
- F       599 or less

Questions regarding lab/homework/quiz/exam grading must be asked within one week after the lab/homework/quiz/exam is returned.

A class average will be computed and if warranted, a curve will be applied if the curve will result in a higher grade.

Class policy

1. Attendance and class participation are expected throughout the semester.
2. Complete all lab assignments on specified dates. Late assignment will lose 20% of the credit each day late.
3. All students submitting identical lab assignments (in whole or in part) will receive a grade of zero for that lab.
4. Exams are to be taken during scheduled times. Make-up exams will be given to students with a valid university excuse (consult student handbook for guidelines).
5. There is no exception for the grading policy and the grading scale.

Student Academic Dishonesty Policy (4.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism. Definition of Academic
Dishonesty: Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at http://www.sfasu.edu/policies/student_academic_dishonesty.pdf

Course Grades Policy (5.5)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. Please read the complete policy at http://www.sfasu.edu/policies/5.5_course-grades.pdf

Academic Accommodation for Students with Disabilities Policy (6.1)
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/

Responsible Use of Technology
It is expected that all students will only use cell phones, PDAs, laptop computers, MP3 players and other technology outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop computer for matters unrelated to the course may be grounds for dismissal from class or other penalties.

Acceptable Student Behavior
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy 10.4). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help...
D2L

For D2L technical support, contact student support in the Office of Instructional Technology (OIT) at d2l@sfasu.edu or 936-468-1919. If you call after regular business hours or on a weekend, please leave a voicemail.

For general computer support (not related to D2L), contact the Technical Support Center (TSC) at 936-468-HELP (4357) or at helpdesk@sfasu.edu.

To learn more about using D2L, visit SFA ONLINE at http://sfaonline.sfasu.edu, where you’ll find written instructions and video tutorials.

Syllabus Changes:

The instructor reserves the right to make changes as necessary to this syllabus.