Course: **MinE 201—Mine Surveying**

Semester: Fall 2014

Course Format
And Credit Hours: 50 min Lecture, 1 hr. 50 min Laboratory

Prerequisite: Math 155

Instructor: Dr. Brijes Mishra, 359E Mineral Resources Building.
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☏ 304-293-3872

Schedule: Monday 10.00 to 10.50 a.m. Lab: 1.00 to 2.50 p.m.
Wednesday 10.00 to 10.50 a.m. Lab: 1.00 to 2.50 p.m.

Location: Room 243, Mineral Resources Building

Office Hours: **Monday 3.00 – 5.00 p.m. or by appointment**

Course Objectives: The objectives of this course are to present the theory of surveying, errors in observations, leveling, distance measurement, angle measurements, coordinate calculations, underground traversing and global positioning systems.

Expected Learning
Outcomes: Upon successful completion of this course:

1. Students will have gained an understanding of the concepts of mine surveying.
2. Students will be able to able to solve problems involving distance measurement, angle calculations etc.
3. Students will be able to recognize errors in observations.
4. Students will have gained experience in underground surveying.
5. Students will have gained experience in working within a team of their peers.

Required Text: Surveying Fundamental and Practices- 6th edition

Grading:

a.	Attendance	05%
b.	Quiz	05%
c.	Homework	10%
d.	Exam #1	25%
e.	Exam #2	25%
f.	Final Exam	30%
	TOTAL	**100%**

Grade Assignment:

100-97	96-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	59-0
A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

Grading Policy: No make-up exams except by prior arrangement with instructor
Late assignment = no assignment
Exam grading appeals in writing on the day the exam is returned

HW Assignments: Homework assignments will be given approximately every week and each assignment will be worth approximately the same credit (Typically there will be between 10 and 12 homeworks each worth the same amount with the total worth 10% of the final grade).

Attendance Policy: Attendance is Compulsory. Consistent with WVU guidelines, students absent from regularly scheduled examinations because of authorized University activities will have the opportunity to take them at an alternate time. Make-up exams for absences due to any other reason will be at the discretion of the instructor.

Social Justice Statement: "West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and nondiscrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.
If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class. Please advise me and make appropriate arrangement with Disability Services (293-6700)."

Cell Phone Policy **Cellphones are not allowed in class (includes lab). ALL CELL PHONES MUST BE TURNED OFF (not placed on vibrate) prior to the beginning of class. Furthermore, your phone (and any other personal electronic device with the exception of laptop computers) should not be visible at any point during class time. The use of cell phones in the classroom will not be tolerated and you will be asked to leave the class immediately.**

Course Schedule:

Lecture	Starting	Topic	Book	Ecampus
1	Aug 18, 2014	Introduction to Surveying	Chap. 1	ppt
2	Aug 19, 2014	Units, Significant Figures and Field Notes	Chap.1&2	ppt
3	Aug 25, 2014	Theory of Errors In Observations	Chapter 2	ppt
4	Aug 27, 2014	Mapping Surveys and Mapping	Handout	ppt
	Sept 1, 2014	**Labor Day - Holiday**		
5	Sept 3, 2014	Total Station Instruments	Chap 4-75,	ppt
6	Sept 8, 2014	Measuring Horizontal Distances	Chapter 4	ppt
7	Sept 10, 2014	Electronic Distance Measurement	Chapter 5	ppt
8	Sept 15, 2014	Angles, Azimuths and Bearings	Chapter 6	ppt
9	Sept 17, 2014	Angles, Azimuths and Bearings	Chapter 7	ppt
10	Sept 22, 2014	Total Station –Angle Observations	ch 6-129	ppt
11	Sept 24, 2014	Traversing	Chapter 7	ppt
12	Sept 29, 2014	Traversing Computations	Chapter 7	ppt
	Sept 30, 2014	**Exam 1 (Lecture 1-9)**		
13	Oct 1, 2014	Underground Mine Surveying	Handout	ppt
14	Oct 6, 2014	Determination of True Meridian	Handout	ppt
15	Oct 7, 2014	Underground Traversing	Handout	ppt
	Oct 13, 2014	**Columbus Day (Fall Recess)**		
16	Oct 15, 2014	Transferring the Meridian: Tunnels and Inclines	Handout	ppt
17	Oct 20, 2014	Transferring the Meridian- Tunnels and Inclines	Handout	ppt
18	Oct 22, 2014	Transferring the Meridian-Vertical Openings	Handout	ppt
19	Oct 27, 2014	Transferring the Meridian-Vertical Openings	Handout	ppt
20	Oct 29, 2014	Leveling- Theory and Methods	Chapter 5	ppt
21	Nov 3, 2014	Equipment for differential leveling	Chapter 5	ppt
22	Nov 5, 2014	Leveling Field Procedure and Computation	Chapter 5	ppt
23	Nov 10, 2014	Surface Mine Introduction	Handout	ppt
	Nov 12, 2014	**Exam 2 (Lecture 10-19)**		
24	Nov 7, 2014	Topographic Survey	Chapter 9	ppt
25	Nov 19, 2014	Topographic Survey	Chapter 9	ppt
	Nov 24, 2014	**Thanksgiving Holiday**		
	Nov 26, 2014	**Thanksgiving Holiday**		
26	Dec 1, 2014	Curves or Guest Lecture	Chapter 10	ppt
27	Dec 3, 2014	Curves or Guest Lecture	Chapter 11	ppt
	Dec 8, 2014	Final Exam Review		
	Dec 15, 2014	**Final Exam (Lecture 20-27)**		