

MAP USE AND ANALYSIS (GEOG281) Spring 2018

In this course we will develop the knowledge necessary for skilled map use and analysis. We will explore the cartographic medium using a variety of examples. The complex roles of the both the map maker and user involved in map interpretation will also be examined.

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Office hours: Mon. & Wed. 3:00-5:00pm, or by appointment.

Text: *Map Use: Reading and Analysis*, Kimerling, Buckley, Muehrcke, and Muehrcke, 6th or 7th edition.

| DATE | TOPICS/EXAMS/READINGS | LAB TOPICS (M & F) |
|---------------|---|-------------------------------|
| W 1/17 | Introduction; Ancient Maps (text pages: 2-3, 228-229)..... | No labs |
| M 1/22 | Introduction to Basic Map Types (xiv-xxvii)..... | No labs |
| W 1/24 | Map Scales and Distance (22-33, 230-246) | |
| M 1/29 | Navigation (248-294)..... | Atlases (20 pts) |
| W 1/31 | Terrain and Contours (100-125, 345-365) | |
| M 2/5 | Terrain and Contours (100-125, 345-365), Exam Review..... | Scale and Direction (20 pts) |
| W 2/7 | Exam #1 | |
| M 2/12 | The Great Survey-DVD, <i>Topography Lab out (20pts.)</i> | Navigation 1 |
| W 2/14 | Map Projections (34-61) | |
| M 2/19 | Map Projections..... | Navigation 2 |
| W 2/21 | Grid Systems and Latitude & Longitude (4-20) | |
| M 2/26 | Grid Systems and Reference Systems..... | Navigation 3 |
| W 2/28 | Reference Systems (62-99), Exam Review | |
| M 3/5 | Exam #2 | Navigation 4 |
| W 3/7 | Place Names, Map selections due! | |
| M 3/12 | Map Misuse and Propaganda (xxiv-xxvi)..... | Makeup labs? |
| W 3/14 | Map Misuse and Exam #3 out | |
| M 3/19 | <i>Spring Break</i> | |
| M 3/26 | Symbols/Marginalia (126-144), Map Accuracy (204-227)..... | No labs |
| W 3/28 | Global Positioning Systems (296-321), Exam #3 due! | |
| M 4/2 | Cultural Patterns and Map Features..... | Makeup labs? |
| W 4/4 | Spatial Statistical Analysis (322-344, 366-415). | |
| M 4/9 | Intro to Aerial Photography, Map Analysis Project Due! ... | Aerial Lab 1 - Stereograms |
| W 4/11 | Stereoscopy and the Aerial Photo Process | |
| M 4/16 | Geometric Characteristics and Photo-Features..... | Aerial Lab 2 - Maps & Photos |
| W 4/18 | Aerial Photo Interpretation | |
| M 4/23 | Applications of Aerial Photography | Aerial Lab 3 - Photo Mosaics |
| W 4/25 | Applications of Aerial Photography | |
| M 4/30 | Aerial Landform Identification..... | No Labs |
| W 5/2 | Exam Review | |
| M 5/11 | Exam #4 at 1:00-3:00 p.m. | |

GRADING: Your final grade will be based on a percentage of the following total points:

| | | |
|---------------------------------------|---|------------------------|
| Four lecture exams @ 50 points each | = | 200 pts. (32 %) |
| Four navigation labs @ 50 points each | = | 200 pts. (32 %) |
| Six Lab Exercises @ 20 pts. each | = | 120 pts. (20 %) |
| One Map Analysis Project @ 100 points | = | <u>100 pts. (16 %)</u> |
| | | 620 pts. Total |

Final grades will be evaluated based on the following scale: (There is no curve.)

| | | |
|-------------------|-------------------|-------------------|
| A+ = 100% to 95% | B- = < 84% to 80% | D = < 67% to 64% |
| A = < 95% to 93% | C+ = < 80% to 77% | D- = < 64% to 60% |
| A- = < 93% to 90% | C = < 77% to 74% | F = < 60% to 0% |
| B+ = < 90% to 87% | C- = < 74% to 70% | |
| B = < 87% to 84% | D+ = < 70% to 67% | |

LECTURE EXAMINATIONS will focus on lecture materials and required readings covered since the previous exams, however, the exams will also be **COMPREHENSIVE** since we are building on concepts covered throughout the course. Topics covered in labs may also appear as lecture exam questions. Exams may not be taken early for any reason.

The **MAP ANALYSIS PROJECT** will consist of a short paper (4-5 double-spaced, typed pages) in which you will interpret the physical and cultural features of a single topographic map. You will select the map, which must then meet my approval. Your map selection must be made no later than the beginning of lecture on **3/7** (Missing this deadline will take 10 points off of the project for each hour late.) **The projects will be due 4/9 at the beginning of class (Missing this deadline will take 20 points off of the project for each hour late.)**

MAKEUPS: Only **ONE** of either Exam #1 or #2 can be made up during the semester. If you miss both exams #1 and #2, you will receive a **zero** for Exam #2. **Makeups must be scheduled with Dr. Dugas within one class day of the missed event. If you do not reschedule by the next class period you not be allowed a makeup!** Exam #3 will have a due time/date with penalties for late submissions. Exam #4(final) cannot be made up. **ALL ASSIGNMENTS MUST BE TURNED IN ON TIME. LATE ASSIGNMENTS WILL BE ASSESSED A PENALTY OF 20% OFF FOR EACH HOUR LATE AFTER THE TIME/DATE DUE.**

- **Academic dishonesty** will not be tolerated and anyone found cheating on an examination or quiz will be given **zero** points for that exam or quiz. Additional sanctions may also be applied. The current Student Code of Conduct definition of plagiarism can be found at: <http://www.nmsu.edu/~vpsa/SCOC/misconduct.html>. Students who engage in disruptive activities in an academic setting (e.g., classrooms, academic offices or academic buildings) are subject to disciplinary action in accordance with Section IV. Such students are also subject to administrative actions in accordance with the NMSU Graduate and Undergraduate Catalogs.”
- **Add/Drops** - The deadline for registration/course additions (with instructor’s permission) is 1/26/2018. The last day to drop a course with a W (except courses carrying designated dates) is 3/15/2018. The last day to Withdraw from the university is 5/4/2018. Students are responsible for withdrawing from class. The instructor will not withdraw a student for not attending class or not completing the course.
- Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) covers issues relating to disability and accommodations. If a student has questions or needs an accommodation in the classroom (all medical information is treated confidentially), contact: Trudy Luken, Director, Student Accessibility Services (SAS), Corbett Center, Rm. 208, Phone: (575) 646-6840, E-mail: sas@nmsu.edu, Website: www.nmsu.edu/~ssd/

- NMSU policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct, sexual violence, sexual harassment and retaliation. For more information on discrimination issues, Title IX or NMSU's complaint process contact: Gerard Nevarez, Executive Director or Agustin Diaz, Associate Director, Office of Institutional Equity (OIE), O'Loughlin House, 1130 University Ave. Phone: (575) 646-3635, E- mail:equity@nmsu.edu Website: <http://www.nmsu.edu/~eeo/>

- Other NMSU Resources:
 - o NMSU Police Department: (575) 646-3311 www.nmsupolice.com
 - o NMSU Police Victim Services: (575) 646-3424
 - o NMSU Counseling Center: (575) 646-2731
 - o NMSU Dean of Students: (575) 646-1722
 - o For Any On-campus Emergencies: 911

- **Plagiarism:**

Plagiarism is using another person's work without acknowledgment, making it appear to be one's own. Intentional and unintentional instances of plagiarism are considered instances of academic misconduct and are subject to disciplinary action such as failure on the assignment, failure of the course or dismissal from the university. The NMSU Library has more information and help on how to avoid plagiarism at <http://lib.nmsu.edu/plagiarism/>

- The Teaching Academy has excellent resources for the development and review of syllabi. For more information please visit <http://teaching.nmsu.edu/Resources/rubrics/index.html>
- E-mail address: I will only use your NMSU e-mail address or the Canvas messaging system for electronic communications.

**A point of clarification: If a student drops by 5pm on the last day to cancel a class, a “W” will not appear on his/her transcript. After the last day to cancel a class and up to the deadline to drop a course, a “W” will appear on the transcript and students will not receive a refund of any tuition.

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COURSE DESCRIPTION:

Comprised of traditional lecture, indoor and outdoor labs, and interpretation projects; the primary goal of this course is the development of the knowledge necessary for proficient map interpretation skills and critical analysis aptitude resulting in functional "map literacy".

ENABLING COMPETENCIES: Student will gain knowledge of...

- a basic history of cartography.
- fundamental map categories (i.e. base, topographic, thematic, atlases, etc.).
- cartographic projections and their characteristics.
- ratio, scale, and distance calculations.
- reference systems (i.e. Latitude & Longitude, Universal Transverse Mercator, Township and Range, etc.).
- map symbols, marginalia, and legends.
- place name classification.
- cultural patterns and map features.
- map accuracy and precision.
- map misuse, propaganda, and critical analysis.
- terrain and landform representation, and contouring.
- land navigation principles (traditional map and magnetic compass skills, and basic map production using a compass).
- global positioning systems (GPS).
- map use in the field.
- elementary spatial statistics.

TERMINAL COMPETENCIES: students will be able to demonstrate the ability to...

- accurately measure bearings and distances on maps.
- read and interpret terrain and landform representation.
- utilize a magnetic compass for basic land navigation and basic map making.
- utilize a GPS instrument for basic land navigation.
- recognize and describe basic physical and cultural spatial patterns portrayed on maps.
- analyze and interpret the significance of spatial patterns portrayed on maps.
- perform elementary spatial statistical analysis on geographic data.
- appreciate and utilize the significance of place names and cultural patterns.
- critically examine maps for evidence of information misuse or propagandist motives.
- recognize and utilize appropriate map categories, symbols, projections, and coordinate systems to effectively and accurately portray, read, analyze, and interpret geographic data.