COURSE OUTLINE: NET150 - DATA ANALYSIS/PRESEN

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Approved: Sherri Smith, Chair, Natural Environment, Business, Design and Culinary

Course Code: Title	NET150: DATA ANALYSIS AND PRESENTATION
Program Number: Name	5220: NAT ENVIRONMENT TN 5221: NAT ENVIRONMENT TY
Department:	NATURAL RESOURCES PRG
Semesters/Terms:	21W
Course Description:	This course provides students with an introduction to statistics and experience using the spreadsheet program Microsoft Excel to enter and manipulate data, generate descriptive statistics, create tables and graphs, and conduct basic inferential statistics. Students will also be introduced to the database program Microsoft Access. In addition, students will learn how to use PowerPoint as an effective visual communication tool.
Total Credits:	2
Hours/Week:	2
Total Hours:	30
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**5220 - NAT ENVIRONMENT TN** VLO 7　Work safely in adherence to occupational health and safety standards. VLO 11　Communicate technical information accurately and effectively in oral, written and visual forms. **5221 - NAT ENVIRONMENT TY** VLO 10　Communicate technical information accurately and effectively in oral, written, visual and electronic forms.
Essential Employability Skills (EES) addressed in this course:	EES 1　Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. EES 2　Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 3　Execute mathematical operations accurately. EES 4　Apply a systematic approach to solve problems. EES 5　Use a variety of thinking skills to anticipate and solve problems. EES 11　Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D A minimum program GPA of 2.0 or higher where program specific standards exist is required

In response to public health requirements pertaining to the COVID19 pandemic, course delivery and assessment traditionally delivered in-class, may occur remotely either in whole or in part in the 2020-2021 academic year.

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	for graduation.
Other Course Evaluation & Assessment Requirements:	Academic success is directly linked to attendance. Missing more than 1/3 of the course hours in a semester shall result in a F Grade for this Course
	Absences during field labs, tests, quizzes, and other assessments will not be excused without documented personal or health reasons.
	Late assignments will only be accepted within 24 hours past the due date and will be penalized 20% except under extenuating circumstances with appropriate documentation.
	Changes to the Course Evaluation scheme may be considered during the semester if approved by the majority of the class (majority = approval by 75% of students present at time of vote).
	The instructor cannot guarantee responses to questions in the 24-hour period prior to assignment deadlines and tests via phone message or email.

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
1. Demonstrate ability to use PowerPoint to design an effective slide show and large format poster presentation.	1.1 Discuss the advantages and limitations of using a PowerPoint slide show as an effective visual communication tool. 1.2 Define criteria which contribute to an effective poster presentation and PowerPoint slide show and establish rules to guide their preparation.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
2. Demonstrate ability to use spreadsheet and database programs (Microsoft Excel and Access) for the purposes of data entry, organization, and analysis.	2.1 Demonstrate ability to set up an Excel spreadsheet to accommodate data entry (e.g., create column headers to organize data into discrete records, create dropdown lists, embed data validation). 2.2 Demonstrate ability to utilize the data form feature to enter additional data to a spreadsheet. 2.3 Demonstrate ability to utilize the database capabilities of Microsoft Excel to sort, filter and organize raw data sets in a meaningful way. 2.4 Demonstrate ability to use the data analysis tools available in Microsoft Excel (use descriptive statistics to explore data, use basic parametric and non-parametric inferential statistics). 2.5 Prepare graphs and tables using Microsoft Excel to summarize descriptive data and statistical analysis. 2.6 Demonstrate proficiency in measurement unit conversions (i.e., within and between english and metric systems).
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Demonstrate knowledge of elementary statistics and associated terminology.	3.1 Define and distinguish between qualitative and quantitative data. 3.2 Describe the differences and strengths and weaknesses among the four levels of measurement: nominal(categorical), ordinal(rank order), interval, and ratio. 3.3 Define and distinguish between discrete and continuous variables. 3.4 Understand how descriptive statistics can be used to explore field data: a)measures of central tendency (mean,

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median, mode), measures of spread (range, standard deviation, variance), skewness, tables and graphs (e.g., frequencies or percentages), associations between two or more variables (contingency tables for categorical variables, scatterplots and correlation for quantitative variables)
3.5 Understand concepts underlying inferential statistics:
- Normal distribution
- Confidence intervals
- Regression analysis

Evaluation Process and Grading System:	

Evaluation Type	Evaluation Weight
Assignments	50%
Tests and Quizzes	50%

Date:	June 17, 2020
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.

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