



NORTHEAST IOWA COMMUNITY COLLEGE

Northeast Iowa Community College provides in-demand education and training focused on improving lives, driving business success and advancing community vitality.

MAT 156 84101 Statistics

Fall 2021

Delivery Method:

- Online

Meet Days/Times/Location:

- Online; ONL

Start and End Dates:

- 8/24/2021 - 12/13/2021

Academic Department: Liberal Arts, Science and Business

Required Materials

Beginning Statistics Software + eBook + Textbook

Bundle (3rd Edition)

ISBN: 9781642772807

Authors: Carolyn Warren Wiley, Kimberly Denley, and Emily Atchley

Publisher: Hawkes Learning

Publication Date: 2021

Edition: Third Edition

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not
available*

Beginning Statistics Software + eBook

ISBN: 9781642772791

Authors: Carolyn Warren Wiley, Kimberly Denley, and Emily Atchley

Publisher: Hawkes Learning

Publication Date: 2021

Edition: Third Edition

Course Information

Course Description: Introduces the basic methods of statistical reasoning to help develop the ability to summarize data, interpret data and draw conclusions based on the data.

Major Course Objective:

Students will demonstrate concepts involved in statistical reasoning.

Primary Common Learning Outcome Assessed: Critical Thinking

Educational Learning Outcomes:

- Students will be able to define Statistics
- Students will be able to create Frequency Distributions and Graphs
- Students will be able to explain Data Description
- Students will be able to compute Introduction to Probabilities
- Students will be able to interpret Discrete Probability Distributions
- Students will be able to interpret The Normal Distribution
- Students will be able to compute Confidence Intervals and Sample Sizes
- Students will be able to perform Hypothesis Testing for one or two parameters
- Students will be able to determine Correlation and Regression
- Students will be able to perform the Chi-Square Test

Prerequisite(s): A minimum grade of C- in MAT 102 or MAT 747 or qualifying placement score

Grading Procedures and Scale

Grade	Grading Scale by Percent of Total Points <i>Ex. (94 - 100%)</i>	Grading Scale by Points Minimum required per grade <i>Ex. (940 - 1000+)</i>
A	93 - 100	1548.5
A-	90 - 92	1498.5
B+	87 - 89	1448.6
B	83 - 86	1382
B-	80 - 82	1332
C+	77 - 79	1282.1
C	73 - 76	1215.5
C- (or P)	70 - 72	1165.5
D+	67 - 69	1115.6
D	63 - 66	1049
D-	60 - 62	999
F (or NP)	< 60	Less than 999

	# of Assignments	Points / Percentage
Hawkes Homework (10 pts. ea.)	41	410/ 24.6%
Brightspace Discussion Board Posts (10 pts. ea.)	3	30/ 1.8%
Brightspace Quizzes (5 pts. ea.)	5	25/ 1.5%
Hawkes Chapter Tests (100 pts. ea.)	10	1000/ 60.1%
Hawkes Final Exam	1	200/ 12.0%
Total Points possible		1665/ 100%

Course Calendar

The course calendar is a guide for activities and subject to change at faculty discretion.

Course Calendar – Statistics Online – Spring 2021

Due Date	Assignment/Exams/Etc.	Topic	Point Value	Course Unit Objective	Program Learning Outcome	Course Learning Objective
Fri. Aug. 27 by 11:59 p.m.	Discussion Board 1: Introduce yourself. Read syllabus in Brightspace. Register for Hawkes Learning Software	Attend class	10 pts.			
Tues. Aug. 31 by 11:59 p.m.	Read Chap. 1 & 2. Complete HW in Hawkes Learning for: Sec. 1.1 Sec. 1.2 Sec. 1.3 Sec. 1.4	Getting Started Data Classification The Process of a Statistical Study How to Critique a Published Study	10 pts. each assignment	The Nature of Probability and Statistics	Students will demonstrate competence in problem solving, logical thinking, and the application of mathematical processes	Th Cr

	Sec. 2.1	Frequency Distributions		Frequency Distributions and Graphs		
	Sec. 2.2	Graphical Displays of Data				
	Sec. 2.3	Analyzing Graphs				
Wed. Sept. 1 Ch. 1 & Ch. 2 tests By 11:59 p.m.	Exam 1 & 2: Take both the Ch. 1 & 2 Tests in Hawkes Learning. Two separate tests.		100 pts. +100 pts. = 200 pts.			
Tues. Sept. 7 by 11:59 p.m.	Read Chap 3 Complete HW in Hawkes Learning for: Sec. 3.1 Sec. 3.2 Sec. 3.3 Brightspace Quiz 1	Measure of Central Tendency Measures of Dispersion Measures of Relative Position	10pts. each 5 pts.	Data Description	Students will demonstrate competence in problem solving, logical thinking, and the application of mathematical processes.	Th Cr
Wed. Sept.	Exam 3: Ch. 3 in Hawkes Learning		100 pts.			

8						
By 11:59 p.m.						
	Read Chapter 4 & complete HW in Hawkes Learning for:			Probability and Counting Rules	Students will demonstrate competence in problem solving, logical thinking, and the application of mathematical processes.	Tr Cr
	Sec. 4.1	Intro to Probability	10 pts. each			
	Sec. 4.2	Addition Rules for Probability				
Tues. Sept. 14 by 11:59 p.m.	Sec. 4.3	Multiplication Rules for Probability				
	Sec. 4.4	Combinations & Permutations				
	Sec. 4.5	Combining Probability and Counting Techniques				
	Brightspace Quiz 2		5 pts.			
	Exam 4: Ch. 4 in Hawkes Learning		100 pts.			
Wed. Sept. 15 by 11:59 p.m.						
Tues. Sept. 21 by 11:59 p.m.	Read Chap. 5 & complete HW in Hawkes Learning for:			Discrete Probability Distributions	Students will demonstrate competence in problem solving, logical thinking, and	Tr Cr
	Sec. 5.1	Discrete Random Variables	10 pts. each			

Wed. Sept. 29 by 11:59 p.m.	Exam 6: Ch. 6 in Hawkes Learning		100 pts.			
Tues. Oct. 5 by 11:59 p.m.	Read Ch. 7 & complete HW in Hawkes Learning for: Sec. 7.1 Sec. 7.2	Sampling Distributions and the Central Limit Theorem Central Limit Theorem with Means	10 pts. each	Confidence Intervals and Sample Size	Students will demonstrate competence in problem solving, logical thinking, and the application of mathematical processes.	Tr Cr
Wed. Oct. 6 by 11:59 p.m.	Exam 7: Ch. 7 in Hawkes Learning		100 pts.			
Sat. Oct. 16 by 11:59 p.m.	Discussion Board 2: How's it going?		10 pts.			
Tues. Oct. 19 by 11:59 p.m.	Read Ch. 8 and complete HW in Hawkes Learning for: Sec. 8.1	Estimating Population Means (sigma known)	10 pts. each	Hypothesis Testing	Students will demonstrate competence in problem solving, logical thinking, and	Tr Cr

	Sec. 8.2 Sec. 8.3 Sec. 8.4 Sec 8.5	Students t-distribution Estimating Population Means (sigma unknown) Estimating Population Proportions Estimating Population Variances			the application of mathematical processes.	
Wed. Oct. 20 by 11:59 p.m.	Exam 8: Ch. 8 In Hawkes Learning		100 pts.			
Tues. Nov. 9 by 11:59 p.m.	Read Ch. 10 . Complete HW in Hawkes Learning for: Sec. 10.1 Sec. 10.2 Sec. 10.3 Sec. 10.4 Sec. 10.5 Sec. 10.6	Fundamentals of Hypothesis Testing Hypothesis Testing for Population Means (sigma known) Hyp. Testing for Population Means (sigma unknown) Hyp. Testing for Population Proportions	10 pts. each.	Correlation and Regression	Students will demonstrate competence in problem solving, logical thinking, and the application of mathematical processes.	Th Cr

	Brightspace Quiz 4 - PLO	Hyp. Test for Population Variances Chi-Square for Goodness of Fit	5 pts.			
Wed. Nov. 10 by 11:59 p.m.	Exam 9: Chapter 10 in Hawkes Learning		100 pts.			
Tues. Nov. 23 by 11:59 p.m.	Sec. 11.1 Sec. 11.2 Brightspace Quiz 5	Hyp. Testing: 2 Population Means (sigma known, Indep. samples) Hyp. Testing: 2 Population Means (sigma unknown, indep. samples)	10 pts. 5 pts.	Other Chi-Square Tests	Students will demonstrate competence in problem solving, logical thinking, and the application of mathematical processes.	Th Cr
Tues. Dec. 7 by 11:59 p.m.	Read Chapter 12 Complete HW in Hawkes Learning for Sec. 12.1 Sec. 12.2	Scatter Plots and Correlation Linear Regression	10 pts. ea.			
Wed. Dec.	Exam 10: Chapters 11 & 12 in Hawkes		100 pts.		.	

8 by 11:59 p.m.	Learning - One exam Ch. 11.1-11.2; 12.1-12.2					
Sun. Dec. 12 By 11:59 p.m.	(Discussion Board 3) in Brightspace - Summative Quiz	All Chapters Studied this semester.	10 pts.		Students will demonstrate competence in problem solving, logical thinking, and the application of mathematical processes.	Tr Cr
Wed. Dec. 15 by 11:59 p.m.	Final Exam in Hawkes Learning (Cumulative)	Lessons from Week 1 to Week 17	200 pts.	Review Chap. 1-4 Review Chap 5-6 Review Chap 7-8 Review Chap 9-10	.	

(Note: This calendar is subject to change. Check Brightspace for updates.)

Student Course Feedback

Prior to course completion you will receive an email providing a link to share your feedback. You are EXPECTED to complete the feedback form for each class.

Assessment

Northeast Iowa Community College is an institution dedicated to continuous instructional improvement as part of our assessment efforts. It is necessary for us to collect and analyze course level data. Data drawn from student work for the purposes of institutional assessment will be posted in aggregate and

will not identify individual students. Your continued support in our ongoing effort to provide quality instructional services at NICC is appreciated.

College Policies

Attendance/Academic Engagement

(See College Handbook for more details) Regular attendance is expected. A strong relationship exists between success in college and class attendance. Absence in class interferes with the learning process and may lead to academic failure. Students should confer with the instructor immediately following an absence. When there is advance knowledge of an absence, students should discuss this with the instructor prior to the absence.

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

Academic Integrity

Academic integrity is the commitment to and demonstration of honesty, ethics, and taking personal responsibility for your work in an academic setting. Academic integrity includes honesty, fairness, respect and responsibility. Academic integrity requires student's work to be the product of their own thought and effort, and to ensure that the intellectual contribution of others is properly documented. Academic integrity applies to all academic activities, including, but not limited to, classwork, labs, clinical field, practicum or co-op assignments. Examples of violations of academic integrity include, but are not limited to, plagiarism, cheating, lying, falsifying data, and aiding dishonesty. Violations of academic integrity are addressed according to the [Academic Integrity Policy](#), and sanctions may include, but not be limited to, warnings (either verbal or written), grade reduction for an assignment, project or test, or a failing grade for the course. Sanctions for violations of academic integrity for a course shall be determined by the faculty member for the course. Pursuant to the Student Conduct Code, egregious or repeated violations of the academic integrity policy may result in the suspension or expulsion from a class or from the College, as determined by the College.

Class Continuation during Campus or Center Closing

Instructional continuity is critical to the College mission and to your success in this class. As such, should a campus or center close due to weather or unforeseen circumstances, please check your

Brightspace class for specific instructions and expectations from your instructor due to the campus closure.

Classes will not be canceled, and students will be expected to continue to engage in this class remotely until such a time as classes can return to normal.

For notification on campus closures, please refer to the following:

<https://www.nicc.edu/about/consumer-information/emergency-response-and-procedure/>

Campus Emergencies

In the event of a campus emergency, an alarm will sound or an appropriate announcement will be made. An emergency response guide, building evacuation routes and severe weather shelter areas are posted in each room. Safety drills are held on a regular basis. For more information, visit campus emergencies in the college catalog.

Course Section Policies

Absence/Illness

Attendance will be taken when the Introductory Board (Discussion Board 1) and the MyLab registration are completed by the due date. Failure to meet this first deadline will be reported to the financial aid office as "non-attending" and a student might risk losing financial aid. Any additional attendance reporting to the registrar or financial aid office will be submitted as needed.

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

Academic Integrity Violations

Academic dishonesty will not be tolerated in any course at NICC. Plagiarism and other forms of cheating are examples of such dishonesty and are subject to review and possible sanctions as outlined in the NICC Student Conduct Code. For a detailed explanation of plagiarism, please visit the Plagiarism Lib Guide at <http://nicc.lebguises.com/citingsources>.

Cheating will result in disciplinary action. Examples of cheating include copying another student's work, copying or using unauthorized resources to answer questions on exams or graded

assignments.

First offense: The student will receive a "0" for the given assignment or exam. The student will not be allowed to redo the assignment or exam. Documentation of the offense will be given to the Dean and placed in the student's academic file. Students are encouraged to speak with the instructor to discuss their actions.

Second offense: If a student conducts another act of academic misconduct, the student will receive a "0" for the given assignment or exam and a final grade of "F" for the course. Documentation will be given to the Dean and placed in the student's academic file.

Late Work

I do not accept late work. Students are expected to follow assignments as specified in the syllabus Course Calendar. If you are absent from class, it is your responsibility to contact the instructor to clarify assignments that are due. You are expected to keep up with the deadlines and submit your work on time. Homework is your responsibility and you cannot learn mathematics without doing it. Keep your class homework assignments in a spiral-bound notebook.

Make sure you have a backup plan if your computer is not functioning properly.

Missing Assignments

It is the responsibility of the student to retrieve missing assignments from the instructor or another classmate. You are expected to complete all assignments, even from the days that you were absent. It is your responsibility to contact another student or the instructor for the missing assignments. Any assignment not submitted by the due date will result in no credit given (0 points).

Makeup Testing

You are expected to take the exams and quizzes at the scheduled time. Any exam missed without prior permission will result in 0 credit earned. If you are going to miss an exam because of an extreme emergency, you must contact the instructor (prior to the date and time of the exam) to inform her that you will be missing the exam and make arrangements to make up the exam. Contact the instructor by the instructor's NICC email or telephone number. I check my emails frequently. Your exam must be made up the first day of your return to class.

Use of Technology

Cell Phone/Text Messaging Usage

NA

Laptop Use

NA

Recording

NA

Classroom Conduct

As a student in this course (and at this College) you are expected to maintain a high degree of professionalism, commitment to active learning and participation in this class; and also integrity in your behavior in and out of the classroom in which the rights, dignity, worth, and freedom of all members of the class are respected. Please refer to the [College Catalog](#) for detailed information on the [Student Conduct Code](#).

Additional Information

Learning Center

The NICC Learning Centers provide tutoring assistance free of charge to any student in person Monday through Friday or virtually online with our online tutoring service 24/7 with [Upswing](#). Students are encouraged to utilize the Learning Centers in Calmar, Peosta or Dubuque.

Access

Take advantage of the *ReadSpeaker Listen Button* to enhance understanding and comprehension of the materials in this and any syllabus within the content area. All of the materials posted in the content area of NICC Brightspace classrooms have a *Listen Button* to have the text highlighted and read for you. Listening to text read aloud is shown to improve reading comprehension.

www.nicc.edu/readspeaker

ReadSpeaker for Brightspace by D2L



Course Copyright

All course materials students receive or to which students have online access are protected by copyright laws. Students may use course materials and make copies for their own use as needed, but unauthorized distribution and/or uploading of materials without the instructor's express written permission is strictly prohibited. Students who engage in the unauthorized distribution of copyrighted materials may be held in violation of the College's Code of Conduct, and/or liable under Federal and State laws.

Netiquette

The term "Netiquette" refers to the etiquette guidelines for electronic communications, such as e-mail and bulletin board postings. Netiquette covers not only rules to maintain civility in discussions, but also special guidelines unique to the electronic nature of forum messages.

Accommodation Policy

In accordance with the Americans with Disability Act, NICC ensures the accessibility of its programs, classes, and services to students with disabilities. For any questions or to apply for disability services please contact the Accessibility Services Office to set up an appointment, or visit the Accessibility Services website at: <https://www.nicc.edu/academic-support/disability-services/accommodations/> for additional information. Any student eligible for and needing academic accommodations because of a disability is requested to speak with their instructor.

Sally Mallam, M.S.

Director of Accessibility Services

844.642.2338 ext. 1258

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Statement of Non-Discrimination

It is the policy of Northeast Iowa Community College not to discriminate on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family or marital status in its programs, activities, or employment practices as required by federal and state civil rights regulations. If you have questions, concerns or to read the full policy at: <https://www.nicc.edu/aboutnicc/nondiscriminationpolicy/>.

Title IX: Confidentiality and Responsible Employee Statement

Northeast Iowa Community College faculty are committed to helping create a safe and open learning environment for all students. If you (or someone you know) have experienced any form of sexual misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available. The College strongly encourages all members of the community to take action, seek support and report incidents of sexual misconduct to the Title IX Office. Please be aware that under Title IX of the Education Amendments of 1972, I am required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact one of NICC's Counselors (Calmar Campus 844.642.2338, ext. 1378 / Peosta Campus 844.642.2338, ext. 2215). For more information about reporting options and resources visit [Sexual Respect and Title IX](#).

Disclaimer

This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check the Learning Management System (Currently Brightspace) for corrections or updates to the syllabus. Any changes will be clearly noted by your instructor or listed in the course announcements or through NICC email.