MATH V44J: JUST-IN-TIME SUPPORT FOR ELEMENTARY STATISTICS

History

1. Apr 14, 2021 by Dorothy Farias (dfarias)

Viewing: MATH V44J : Just-in-Time Support for Elementary Statistics
Last approved: Wed, 14 Apr 2021 14:06:58 GMT
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Originator
churtado

Co-Contributor(s)

Name(s)
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Farias, Dorothy (dfarias)

College
Ventura College

Discipline (CB01A)
MATH - Mathematics

Course Number (CB01B)
V44J

Course Title (CB02)
Just-in-Time Support for Elementary Statistics

Banner/Short Title
Support for Elementary Stats

Credit Type
Credit

Start Term
Summer 2020

Catalog Course Description
This course provides just-in-time support and review for transfer-level Statistics. Math V44J is intended for students who are concurrently enrolled in Math V44. Topics include learning skills and just-in-time support for concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Recommended for students with little or no recent knowledge of algebra.

Additional Catalog Notes
This support course is required for some, but not all, sections of MATH V44; click the CRN information in the schedule of classes for each section of MATH V44 to determine whether support is required for that section; see your counselor or major advisor for more information.

Taxonomy of Programs (TOP) Code (CB03)
1701.00 - Mathematics, General

Course Credit Status (CB04)
S (Support Course - Credit - Not Degree Applicable)

Course Transfer Status (CB05) (select one only)
C (Not transferable)

Course Basic Skills Status (CB08)
B - The Course is a Basic Skills Course

SAM Priority Code (CB09)
E - Non-Occupational

Course Cooperative Work Experience Education Status (CB10)
N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)
Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)
N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)
A - One level below transfer

Course Noncredit Category (CB22)
Y - Credit Course

Funding Agency Category (CB23)
Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)
2 - Not Program Applicable

General Education Status (CB25)
Y - Not Applicable

Support Course Status (CB26)
S - Course is a support course

Field trips
Will not be required

Grading method
(P) Pass/No Pass Grading

Does this course require an instructional materials fee?
No

Repeatable for Credit
No

Is this course part of a family?
No

Units and Hours

Carnegie Unit Override
No

In-Class

Lecture
Minimum Contact/In-Class Lecture Hours
35
Maximum Contact/In-Class Lecture Hours
35

Activity

Laboratory

Total in-Class

Total in-Class
Total Minimum Contact/In-Class Hours
35
Total Maximum Contact/In-Class Hours
35

Outside-of-Class

Internship/Cooperative Work Experience

Paid

Unpaid

Total Outside-of-Class

Total Outside-of-Class
Minimum Outside-of-Class Hours
70
Maximum Outside-of-Class Hours
70

Total Student Learning

Total Student Learning
Total Minimum Student Learning Hours
105
Total Maximum Student Learning Hours
105

Minimum Units (CB07)
2
Maximum Units (CB06)
2

Corequisites
MATH V44

Requisite Justification

Requisite Type
Corequisite

Requisite
MATH V44

Requisite Description
Other (specify)

Specify Other Requisite Description
MATH V44 is the course for which MATH V44J provides support.

Level of Scrutiny/Justification
Content review

Student Learning Outcomes (CSLOs)

	Upon satisfactory completion of the course, students will be able to:
1	Students will locate, identify, collect and organize data in order to analyze, interpret, or evaluate it using mathematical skills.
2	Students will apply numerical, algebraic, and statistical reasoning and computational skills to support statistical analysis.
3	Students will apply algebraic and statistical knowledge to solve application problems.

Course Objectives

	Upon satisfactory completion of the course, students will be able to:
1	Evaluate expressions and perform operations over the set of real numbers.
2	Distinguish between inductive and deductive reasoning.
3	Interpret data displayed in tables and graphs.
4	Calculate measures of central tendency and variation for a given data set.
5	Simplify expressions and solve equations involving radicals.
6	Graph and determine linear equations using slope-intercept form.
7	Apply effective learning skills for success in college.

Course Content

Lecture/Course Content

1. Performing operations and evaluating expressions (Obj. 1)
   a. Operations with fractions and proportions
   b. Absolute value
   c. Adding, subtracting, multiplying, and dividing real numbers
   d. Exponents, square roots, order of operations, and scientific notation
   e. Ratios
   f. Percents
   g. Convert percentages to and from decimals
   h. Evaluate expressions with one or more variables
2. Inductive vs deductive reasoning (Obj. 2)
3. Summarizing data graphically and in tables (Obj. 3)
   a. Frequency distributions
   b. Histograms
   c. Dot plots
   d. Box plots
   e. Bar graphs
   f. Pie Charts
   g. Scatter plots
   h. Stem and leaf plots
4. Measures of center and spread (Obj. 4)
   a. Mean
   b. Median
   c. Mode
   d. Range
   e. Variance
   f. Standard Deviation
5. Radicals (Obj. 5)
   a. Simplify and evaluate radical expressions
   b. Solve equations involving radicals
6. Linear functions (Obj. 6)
   a. Slope and rates of change
   b. Determine the equation of a line using slope-intercept form

c. Graphing a line using slope-intercept form
d. Solving linear equations

7. Learning skills (Obj. 7)
   a. Apply learning skills that promote success in college

Laboratory or Activity Content

N/A - Lecture only.

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):

Problem solving exercises
Skills demonstrations
Written expression

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):

Computational homework
Group projects
Individual projects
Journals
Mathematical proofs
Objective exams
Oral presentations
Other (specify)
Problem-solving exams
Portfolios
Quizzes
Reports/papers
Research papers
Skills demonstrations
Skills tests or practical examinations

Other

Writing: Summarizing and interpreting answers to problems in paragraph form; articulating responses within the computational homework to demonstrate an understanding of concepts

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Audio-visual presentations
Computer-aided presentations
Collaborative group work
Class activities
Class discussions
Distance Education
Demonstrations
Group discussions
Guest speakers
Instructor-guided interpretation and analysis
Instructor-guided use of technology
Internet research
Lecture
Other (specify)
Small group activities

Specify other method of instruction

Large Group Activities
Problem Solving
Reading Assignments
Web-based Presentation

Representative Course Assignments

Writing Assignments

Summarizing and interpreting answers to problems in paragraph form; articulating responses within the computational homework to demonstrate an understanding of concepts.

Reading Assignments

Text and other scholarly articles, 1 to 2 sections/articles per week.

Problem-Solving and Other Assignments (if applicable)

Solving problems using various forms of technology; use of technology may be incorporated into the computational homework, or assigned in addition to computational homework.

Outside Assignments

Representative Outside Assignments

Representative outside assignments may include, but are not limited to, homework problems, projects, activities, and group work in which students:

- Perform operations with fractions, proportions, absolute value, real numbers, exponents, square roots, scientific notation, ratios, and percents
- Convert percentages to and from decimals
- Evaluate expressions with one or more variables
- Describe the differences between inductive vs deductive reasoning
- Summarizing data graphically and in tables, using frequency distributions, histograms, dot plots, box plots, bar graphs, pie charts, scatter plots, and stem and leaf plots
- Apply measures of center and spread, including mean, median, mode, range, variance, and standard deviation
- Simplify and evaluate radical expressions and solve equations involving radicals
- Apply the theory of linear equations, computing the slope and rates of change, determining the equation of a line using slope-intercept form, graphing a line using slope-intercept form and solving linear equations
- Apply learning skills that promote success in college

Textbooks and Lab Manuals

Resource Type

Textbook

Description

Sobecki, D. Mercer, B. (2018). *Pathways to Math Literacy* (2nd). McGraw Hill. 9781259985607

Resource Type

Textbook

Description

Triola, M. (2017). *Elementary Statistics* (13). Pearson. 9780134763798

Library Resources

Sufficient Library Resources exist

Yes

Distance Education Addendum

Definitions

Distance Education Modalities

Hybrid (51%–99% online)
Hybrid (1%–50% online)
100% online

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

Regular Effective/Substantive Contact

Hybrid (1%—50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Regular use of asynchronous discussion boards encourages various types of interaction and critical thinking skills among all course participants. Questions and topics posed will allow students to discuss, compare and contrast, identify, and analyze elements of the course outcomes. Other discussion boards may be used for Q&A and general class discussion by students and instructor to facilitate student success and strengthen student learning outcomes.
E-mail	E-mail, class announcements and various learning management system tools such as “Message Students Who” and “Assignment Comments”, will be used to regularly communicate with all students on matters such as clarification of class content, reminders of upcoming assignments and/or course responsibilities, to provide prompt feedback to students on coursework to facilitate student learning outcomes, or to increase the role of an individual educator in the academic lives of a student. Students will be given multiple ways to email instructor through both the learning management system inbox and faculty provided email accounts.
Face to Face (by student request; cannot be required)	Students will have direct face-to-face contact with instructor during weekly class meetings. This time will provide the opportunity for students to discuss and ask questions about the material to facilitate student learning objectives and course outcomes. The instructor will also hold weekly, scheduled office hours for students to be able to meet and discuss course materials or individual progress. Students can request additional in-person or web conferencing meetings with faculty member as needed. Faculty may encourage online students to form “study groups” in person or online. Note: For hybrid classes, face-to-face class time will provide opportunities for students to discuss amongst themselves (in groups or pairs) and ask questions about the material to facilitate SLOs and course outcomes.
Other DE (e.g., recorded lectures)	Faculty may use a variety of ADA compliant tools and media integrated within the learning management system to help students reach SLO competency. Tools may include: o Recorded Lectures, Narrated Slides, Screencasts o Instructor created content o VC Online Library Resources o Canvas Peer Review Tool o Canvas Student Groups (Assignments, Discussions) o 3rd Party (Publisher) Tools (MyOpenMath) o Websites and Blogs o Multimedia (YouTube, Films on Demand, 3CMedia, Khan Academy, etc.)
Synchronous Dialog (e.g., online chat)	Instructor may provide a set time each week where they will be available for synchronous chat and be available in the discussion board and can answer questions in live time.
Video Conferencing	Video tools such as ConferZoom can be used to provide live synchronous or asynchronous sessions with students. ADA compliance will be upheld with Closed Captioning during the session or of the recorded session. Video Conferences will be used to facilitate SLOs and student-to-student group meetings will also be encouraged.

Telephone	Students can request for instructor to call or vice versa in order to answer one-on-one questions about course material or student progress.

Hybrid (51%–99% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Regular use of asynchronous discussion boards encourages various types of interaction and critical thinking skills among all course participants. Questions and topics posed will allow students to discuss, compare and contrast, identify, and analyze elements of the course outcomes. Other discussion boards may be used for Q&A and general class discussion by students and instructor to facilitate student success and strengthen student learning outcomes.
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Telephone	Students can request for instructor to call or vice versa in order to answer one-on-one questions about course material or student progress.

100% online Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
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E-mail	E-mail, class announcements and various learning management system tools such as “Message Students Who” and “Assignment Comments”, will be used to regularly communicate with all students on matters such as clarification of class content, reminders of upcoming assignments and/or course responsibilities, to provide prompt feedback to students on coursework to facilitate student learning outcomes, or to increase the role of an individual educator in the academic lives of a student. Students will be given multiple ways to email instructor through both the learning management system inbox and faculty provided email accounts.
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Examinations

Hybrid (1%–50% online) Modality
Online
On campus

Hybrid (51%–99% online) Modality
Online
On campus

Primary Minimum Qualification
MATHEMATICS

Review and Approval Dates

Department Chair
MM/DD/YYYY

Dean
MM/DD/YYYY

Technical Review
MM/DD/YYYY

Curriculum Committee
09/15/2020

DTRW-I
n/a

Curriculum Committee
09/15/2020

Board
n/a

CCCCO
10/05/2020

Control Number
CCC000598610

DOE/accreditation approval date
MM/DD/YYYY

Reviewer Comments

lwright (Fri, 18 Oct 2019 22:30:25 GMT): Dean Reviewed 10/18/2019

Michael Bowen (mbowen) (Fri, 24 Jul 2020 02:35:12 GMT): Rollback: Rollback requested by Chloe so that Blanket DE Addendum information may be added.

Sharon Oxford (soxford) (Thu, 30 Jul 2020 01:29:40 GMT): To provide support to all students, consider setting the V44J to be available to be permanent DE in same modalities as V44.

Michael Bowen (mbowen) (Sun, 16 Aug 2020 02:41:11 GMT): Emergency-only DE selections were made permanent by vote of math department 20200814.

Michael Bowen (mbowen) (Fri, 28 Aug 2020 00:53:42 GMT): Rollback: Wait for 9/15 CC meeting.

Kelly Denton (kdenton) (Thu, 11 Mar 2021 01:32:01 GMT): SYNC ERROR FIX: Edited Additional Catalog Notes field by replacing the period with a semicolon between the two topics.

Key: 5009