Term Information

Effective Term   Autumn 2024

General Information

Course Bulletin Listing/Subject Area   Statistics
Fiscal Unit/Academic Org   Statistics - D0694
College/Academic Group   Arts and Sciences
Level/Career   Graduate, Undergraduate
Course Number/Catalog   5732
Course Title   Introduction to R for Data Science II: Intermediate R
Transcript Abbreviation   Intermediate R
Course Description   The second course in a sequence designed for teaching students how to use R effectively for doing data science. This course dives deeper into tools in R at an intermediate level that is beneficial for complex projects and analyses, as well as fundamental programming concepts including basic and special data types, functions, and iteration.
Semester Credit Hours/Units   Fixed: 1

Offering Information

Length Of Course   7 Week, 6 Week, 4 Week
Flexibly Scheduled Course   Never
Does any section of this course have a distance education component?   Yes
Is any section of the course offered   100% at a distance
Grading Basis   Letter Grade
Repeatable   No
Course Components   Lecture
Grade Roster Component   Lecture
Credit Available by Exam   No
Admission Condition Course   No
Off Campus   Never
Campus of Offering   Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites   STAT 5731 or permission of the instructor.
Exclusions   Not open to students with credit for STAT 5730
Electronically Enforced   Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code   27.0501
Subsidy Level   Doctoral Course
Intended Rank   Junior, Senior, Masters, Doctoral

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes	• Understand and work with basic R data types.
	• Work with dates and times and understand fundamental issues such as time zones and durations.
	• Join multiple data frames.
	• Program in R with functions, conditional execution, and iteration.
Content Topic List	• Basic data types in R: logical and number types, dates and times
	• Joining and working with multiple tables
	• Functions and conditional execution
	• Iteration
Sought Concurrence	No

Attachments

• STAT5732_syllabus.pdf: syllabus

   (Syllabus. Owner: Lee,Yoonkyung)

• STAT5732_asc-distance-approval-cover-sheet-signed.pdf: distance approval cover sheet

   (Other Supporting Documentation. Owner: Lee,Yoonkyung)

• Restructuring_5730.pdf: rationale for restructuring 5730

   (Cover Letter. Owner: Lee,Yoonkyung)

• STAT5732_Rationale.pdf: rationale for 5732

   (Cover Letter. Owner: Lee,Yoonkyung)

• concurrence CSE_2019.pdf: CSE concurrence

   (Concurrence. Owner: Lee,Yoonkyung)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Lee,Yoonkyung	02/25/2024 06:34 PM	Submitted for Approval
Approved	Lee,Yoonkyung	02/25/2024 06:35 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	03/07/2024 05:17 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Neff,Jennifer Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	03/07/2024 05:17 PM	ASCCAO Approval

Statistics 5732: Introduction to R for Data Science II: Intermediate R

Rationale

R is an important software tool in statistics and data science, and being able to use R is almost a necessary skill for performing any sort of complex data analysis. This course is part two of a trio of courses that will cover basic usage, intermediate usage, and advanced visualization. The purpose of this course is to teach students more intermediate techniques in R that can enable them to work on more complex data analyses involving multiple data tables and to better understand fundamental programming concepts that will allow them to scale their analyses to larger problems.

Course objectives and/or student learning outcomes

By the end of this course, students should successfully be able to:

- Understand and work with basic R data types (e.g., logicals, numbers, factors)
- Work with dates and times and understand fundamental issues such as time zones and durations (e.g., one month is not always 30 days)
- Join multiple data frames
- Program in R with functions, conditional execution, and iteration

Restructuring STAT 5730

Statistics 5730 (Introduction to R for Data Science) is a course on R developed in 2019 and has served both undergraduate and graduate students in a wide range of disciplines since the initial offering in Spring 2020. It introduces underlying concepts of the R programming language and R package ecosystem for manipulation, visualization, and modeling of data, and for communicating the results of and enabling replication of their analyses. Due to the pandemic, the course was converted to an online course in Autumn 2020 and has been offered in Spring and Summer terms as a distance learning course since then. Enrollments have grown over the years from about 60 to 100 in Spring offerings and from 50 to 70 in Summer offerings. While a majority of students are from Arts and Sciences, this course has served students from other colleges as well, including Business, Public Health, Engineering, Agriculture, Education and Human Ecology.

Rationale

The R programming language continues to gain popularity in a range of subject areas. With successful offerings of 5730 so far and increasing enrollments of both undergraduate and graduate students from a variety of disciplines, we propose to restructure STAT 5730 and offer a split course with two 7-week components. The first component (5731) will be on the usage of R at a basic level while the second component (5732) will be at an intermediate level. The shorter 7-week format is likely to be more attractive to undergraduate students who want to learn only the basics of R programming. This shorter format is also likely to be attractive to units who already offer data analysis courses that rely on R skills, who may recommend their students take this one-credit course prior or concurrently. This revised structure also sets the stage for long-term development of a collection of 7-week follow-up courses on different R programming topics for those who would like a deeper understanding. As an example, we are currently developing a 7-week course on data visualization with R.

Relationship to other courses/curricula

When we proposed STAT 5730 as a new course in 2019, we sought concurrence from the Department of Computer Science and Engineering. Since 5731 and 5732 are split courses of 5730 with no substantial change in the course content, we have included a copy of the previous concurrence letter from CSE in this course request.

Syllabus

STAT 5732

Introduction to R for Data Science II: Intermediate R

Autumn 2024

1 Credit Hours

Online

Course overview

Instructor

- Name
- E-mail address
- Office Hours on Zoom:
  - Complete schedule and meeting links in Carmen

Note: My preferred method of contact is email.

Course Prerequisites

STAT 5731 or permission of the instructor.

Course description

R is a freely available statistical computing environment and programming language. It has become a dominant workhorse for modern statistical research and data analysis and has been widely adopted in industrial data analytics as well. This course is part of a sequence whose goal is to teach students how to use R effectively for doing data science – importing raw

data and transforming it into insights and knowledge that can be communicated with others. Throughout the sequence, there will be an emphasis on coding practices for ensuring reliability, reproducibility, and transparency of data analyses. Part I of the sequence introduced students to the basic workflow and important tools in R for visualization, transformation, and organization of data. Part II of the sequence dives deeper into these components at a more intermediate level that is beneficial for more complex projects and analyses, as well as more fundamental programming concepts including basic and special data types, functions, and iteration.

Course expected learning outcomes

By the end of this course, students should successfully be able to:

1. Understand and work with basic R data types (e.g., logicals, numbers, factors).
2. Work with dates and times and understand fundamental issues such as time zones and durations (e.g., one month is not always 30 days).
3. Join multiple data frames.
4. Program in R with functions, conditional execution, and iteration.

How this online course works

Mode of delivery

This course is 100% online. There are no required sessions when you must be logged in to Carmen at a scheduled time. I will send all important class-wide messages through the Announcements tool in Carmen. Please check your notification preferences (go.osu.edu/canvas-notifications) to ensure you receive these messages.

Pace of online activities

This course is divided into weekly modules, consisting of short video lectures and assignments, that are generally released at the beginning of each week. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations

This is a 7-week, **1-credit-hour course**. According to Ohio State policy (go.osu.edu/credithours), students should expect around 2 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 4 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Participation requirements

Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of students' expected participation:

Participating in online activities

You are expected to log in to the course in Carmen every week. Online activities also include watching pre-recorded lecture videos and posting in Carmen discussion forums, including a weekly discussion assignment. During most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.

Office hours (optional)

My office hours are optional.

Course communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

Writing style

While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation.

Tone and civility

Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. A more conversational tone is fine for non-academic topics.

Citing your sources

When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.

Protecting and saving your work

Consider composing your academic posts in a word processor/text editor, where you can save your work, and then copying into the Carmen discussion.

Course materials and technologies

Textbooks

Required

1. [**R4DS2E**] Wickham, Çetinkaya-Rundel, and Grolemund (2023): *R for Data Science, 2nd Edition*. Electronic version: https://r4ds.hadley.nz. This web version of the book can be accessed freely from any web browser.

Course technology

Technology support

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at it.osu.edu/help, and support for urgent issues is available 24/7.

- Self-Service and Chat support: it.osu.edu/help
- Phone: 614-688-4357(HELP)
- Email: 8help@osu.edu
- TDD: 614-688-8743

Technology skills needed for this course

- Basic computer and web-browsing skills
- Navigating Carmen (go.osu.edu/canvasstudent)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)

Required Equipment

- Computer: current Mac (MacOs) or PC (Windows 10 or Linux) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

Required software

- **R** and **RStudio (Desktop IDE):** Students will be required to use R and RStudio software. RStudio can be downloaded for free at https://posit.co/download/rstudio-desktop/. **Before installing RStudio, you must also download and install the base R software at** https://cloud.r-project.org/. You are expected to

install up to date versions of R and RStudio on your personal computer by downloading the software from the links above. As of December 27, 2023, the current versions are **4.3.2** and **2023.12.0+369**, respectively. You will also have to install the packages **tidyverse** and **rmarkdown** in R. Further instructions will be provided in the lectures.

Carmen Access

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

Grading and instructor response

How your grade is calculated

Assignment Category	Points and/or Percentage
Participation	10%
Homework	60%
Final Project	30%
Total	**100%**

Description of major course assignments

Participation

- **Description**

You are expected to watch all lectures. The lectures will be delivered asynchronously and posted on the Carmen course webpage. In addition, there will be discussion board assignments on Carmen that you are **required** to contribute to regularly. You will be allowed to drop one such assignment from your grade.

- **Academic integrity and collaboration guidelines**

Discussion posts should be your own work. They will generally require you to repeat an example or answer a question posed in the lecture videos. These assignments will be graded based on completion rather than correctness.

Homework

o **Description**

Homework will be assigned (approximately) weekly, will be due on announced dates and will be graded. Learning to compute and program requires practice. Homework assignments will mainly consist of exercises designed to reinforce the concepts covered in class during the previous week.

o **Academic integrity and collaboration guidelines**

You may collaborate with classmates on your homework, but ultimately the code that you write and submission that you make must be your own work. For example, I encourage you to discuss strategies for solving problems, but the actual code and explanations that you write must be your own. Moreover, keep in mind the university policies on plagiarism. Do not copy or plagiarize anything you may find on the Internet.

Final Project

o **Description**

There will be a group final project during the last two weeks of the course consisting of a data analysis and report produced entirely within R. Students will work in groups to perform a data analysis involving multiple tables of data, using skills learned in the course. Students will collaborate in forming a strategy for the analysis and writing a report to communicate what they have learned from the data. Students will write short peer-reviews for their group members to explain each other's contributions.

o **Academic integrity and collaboration guidelines**

This is a group assignment. Students are expected to collaborate and participate in the group. Accountability will be maintained by peer-reviews.

Late assignments

If you absolutely need to turn in an assignment late and have a valid excuse, please see me for the necessary arrangements. However, you must notify me in advance in such a situation. Exceptions to this policy will be permitted only in extreme situations such as serious injury immediately prior to an assignment being due or severe illness requiring hospitalization.

Grading Scale

- 93-100: A
- 90-92: A−
- 87-89: B+
- 83-86: B
- 80-82: B−
- 77-79: C+
- 73-76: C
- 70-72: C−
- 67-69: D+
- 60-66: D
- Under 60: E

Instructor feedback and response time

Grading and feedback

For weekly assignments, you can generally expect feedback and grades within **10 days**.

Discussion board

If you have a question about the class material, please post to the Q&A discussion topic for the corresponding module. I will check and reply to

messages in the discussion boards within **24 hours on days when class is in session at the university**.

Preferred contact method

If you have an individual or sensitive question, please contact me through my Ohio State email address–not Carmen messages. I will reply to emails within **24 hours on days when class is in session at the university**.

Academic policies

Academic integrity policy

See **Descriptions of major course assignments**, above, for my specific guidelines about collaboration and academic integrity in the context of this online class.

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct: http://studentlife.osu.edu/csc/.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- Committee on Academic Misconduct web page (go.osu.edu/coam)
- Ten Suggestions for Preserving Academic Integrity (go.osu.edu/ten-suggestions)

Copyright for instructional materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu

Commitment to a diverse and inclusive learning environment

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the

inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Land acknowledgement

We would like to acknowledge the land that The Ohio State University occupies is the ancestral and contemporary territory of the Shawnee, Potawatomi, Delaware, Miami, Peoria, Seneca, Wyandotte, Ojibwe and Cherokee peoples. Specifically, the university resides on land ceded in the 1795 Treaty of Greeneville and the forced removal of tribes through the Indian Removal Act of 1830. I/We want to honor the resiliency of these tribal nations and recognize the historical contexts that has and continues to affect the Indigenous peoples of this land.

More information on OSU's land acknowledgement can be found here: https://mcc.osu.edu/about-us/land-acknowledgement

Your mental health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin

Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Accessibility accommodations for students with disabilities

Requesting accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are isolating while waiting for a COVID-19 test result, please let me know immediately. Those testing positive for COVID-19 should refer to the Safe and Healthy Buckeyes site for

resources. Beyond five days of the required COVID-19 isolation period, I may rely on Student Life Disability Services to establish further reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Religious accommodations

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

Course Schedule

Refer to our Carmen course page for up-to-date assignment due dates.

Dates	Module	Topics/Readings/Assignments
10/14-10/18	1	Basic data types in R: Logical and number types Reading: R4DS2E 12–13

Dates	Module	Topics/Readings/Assignments
10/21-10/25	2	Dates and times Reading: R4DS2E 17 Due: Homework for Module 2
10/28-11/1	3	Joining and working with multiple tables Reading: R4DS2E 19 Due: Homework for Module 3
11/4-11/8	4	Functions and conditional execution Reading: R4DS2E 25 Due: Homework for Module 4
11/12-11/15	5	Iteration Reading: R4DS2E 26–27 Due: Homework for Module 5
11/18-11/22		Final project begins
11/25-12/6		Final project due

Re: Concurrence for STAT 5730 Introduction to R for Data Science

Sivilotti, Paul

Mon 4/1/2019 9:44 AM

To:Lee, Yoonkyung <yklee@stat.osu.edu>;

Hi Yoon--

Our curriculum committee reviewed the proposal. CSE concurs with the course proposal.

Best wishes,
--paul

> On Mar 20, 2019, at 10:51 PM, Lee, Yoonkyung <yklee@stat.osu.edu> wrote:
>
> Dear Paul,
>
> We would like to request your concurrence on a new course, STAT 5730 Introduction to R for Data Science. This course is designed for our undergraduate and graduate students as an elective, teaching them skills and underlying concepts of the R programming language and computing environment for data analysis. Attached please find the sample syllabus and our rationale for the course proposal.
>
> Please let me know if you have any questions. We would appreciate getting your response within two weeks.
>
> Thank you!
>
> Yoon
>
> --
> Yoonkyung Lee
> Professor of Statistics
> Professor of Computer Science and Engineering (by courtesy)
> The Ohio State University
>
> <proposal.pdf><syllabus.pdf>

--

Prof. Paul A. G. Sivilotti Computer Science and Engineering
The Ohio State University   2015 Neil Ave., Columbus OH, 43210
614.292.5835, Fax 292.2911 http://www.cse.ohio-state.edu/~paolo

Distance Approval Cover Sheet

For Permanent DL/DH Approval | College of Arts and Sciences

Course Number and Title:

Carmen Use

When building your course, we recommend using the ASC Distance Learning Course Template for CarmenCanvas. For more on use of Carmen: Common Sense Best Practices.

☐ A Carmen site will be created for the course, including a syllabus and gradebook at minimum.

If no, why not?

Syllabus

☐ Proposed syllabus uses the ASC distance learning syllabus template, includes boilerplate language where required, as well as a clear description of the technical and academic support services offered, and how learners can obtain them.

☐ Syllabus is consistent and is easy to understand from the student perspective.

☐ Syllabus includes a schedule with dates and/or a description of what constitutes the beginning an end of a week or module.

☐ If there are required synchronous sessions, the syllabus clearly states when they will happen and how to access them.

Additional comments (optional):

Instructor Presence

For more on instructor presence: About Online Instructor Presence.

Students should have opportunities for regular and substantive academic interactions with the course instructor. Some ways to achieve this objective:

☐ Regular instructor communications with the class via announcements or weekly check-ins.

☐ Instructional content, such as video, audio, or interactive lessons, that is visibly created or mediated by the instructor.

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☐ Regular participation in class discussion, such as in Carmen discussions or synchronous sessions.

☐ Regular opportunities for students to receive personal instructor feedback on assignments.

Please comment on this dimension of the proposed course (or select/explain methods above):

Delivery Well-Suited to DL/DH Environment

Technology questions adapted from the Quality Matters rubric. For information about Ohio State learning technologies: Toolsets.

☐ The tools used in the course support the learning outcomes and competencies.

☐ Course tools promote learner engagement and active learning.

☐ Technologies required in the course are current and readily obtainable.

☐ Links are provided to privacy policies for all external tools required in the course.

Additional technology comments (optional):

Which components of this course are planned for synchronous delivery and which for asynchronous delivery? (For DH, address what is planned for in-person meetings as well.)

If you believe further explanation would be helpful, please comment on how course activities have been adjusted for distance learning (optional):

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Workload Estimation

For more information about calculating online instruction time: ODEE Credit Hour Estimation.

☐ Course credit hours align with estimated average weekly time to complete the course successfully.

☐ Course includes direct (equivalent of "in-class") and indirect (equivalent of "out-of-class") instruction at a ratio of about 1:2.

Provide a brief outline of a typical course week, categorizing course activities and estimating the approximate time to complete them or participate:

☐ In the case of course delivery change requests, the course demonstrates comparable rigor in meeting course learning outcomes.

Accessibility

For more information or a further conversation, contact the accessibility coordinator for the College of Arts and Sciences. For tools and training on accessibility: Digital Accessibility Services.

☐ Instructor(s) teaching the course will have taken Digital Accessibility training (starting in 2022) and will ensure all course materials and activities meet requirements for diverse learners, including alternate means of accessing course materials when appropriate.

☐ Information is provided about the accessibility of all technologies required in the course. All third-party tools (tools without campus-wide license agreements) have their accessibility statements included.

Description of any anticipated accommodation requests and how they have been/will be addressed.

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Additional comments (optional):

Academic Integrity

For more information: Academic Integrity.

☐ The course syllabus includes online-specific policies about academic integrity, including specific parameters for each major assignment:

☐ Assignments are designed to deter cheating and plagiarism and/or course technologies such as online proctoring or plagiarism check or other strategies are in place to deter cheating.

Additional comments (optional):

Frequent, Varied Assignments/Assessments

For more information: Designing Assessments for Students.

Student success in online courses is maximized when there are frequent, varied learning activities. Possible approaches:

☐ Opportunities for students to receive course information through a variety of different sources, including indirect sources, such as textbooks and lectures, and direct sources, such as scholarly resources and field observation.

☐ Variety of assignment formats to provide students with multiple means of demonstrating learning.

☐ Opportunities for students to apply course knowledge and skills to authentic, real-world tasks in assignments.

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Comment briefly on the frequency and variety of assignment types and assessment approaches used in this course (or select methods above):

Community Building

For more information: Student Interaction Online.

Students engage more fully in courses when they have an opportunity to interact with their peers and feel they are part of a community of learners. Possible approaches:

☐ Opportunities for students to interact academically with classmates through regular class discussion or group assignments.

☐ Opportunities for students to interact socially with classmates, such as through video conference sessions or a course Q&A forum.

☐ Attention is paid to other ways to minimize transactional distance (psychological and communicative gaps between students and their peers, instructor, course content, and institution).

Please comment on this dimension of the proposed course (or select methods above):

Transparency and Metacognitive Explanations

For more information: *Supporting Student Learning.*

Students have successful, meaningful experiences when they understand how the components of a course connect together, when they have guidance on how to study, and when they are encouraged to take ownership of their learning. Possible approaches:

☐ Instructor explanations about the learning goals and overall design or organization of the course.

☐ Context or rationale to explain the purpose and relevance of major tasks and assignments.

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☐ Guidance or resources for ancillary skills necessary to complete assignments, such as conducting library research or using technology tools.

☐ Opportunities for students to take ownership or leadership in their learning, such as by choosing topics of interest for an assignment or leading a group discussion or meeting.

☐ Opportunities for students to reflect on their learning process, including their goals, study strategies, and progress.

☐ Opportunities for students to provide feedback on the course.

Please comment on this dimension of the proposed course (or select methods above):

Additional Considerations

Comment on any other aspects of the online delivery not addressed above (optional):

Syllabus and cover sheet reviewed by *Jeremie Smith* on

Reviewer Comments:

Additional resources and examples can be found on ASC's Office of Distance Education website.

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