



School of Information Sciences

INF 4010: Introduction to Informatics (Draft)

Online

Name

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Office:	Kresge Library 300.03 (Dr. Bowman) Kresge Library 300.23 (Dr. DePaula)
In-Person Office Hours:	By appointment
Virtual Office Hours:	T.B.D.
Lectures Available:	Every Wednesday (by the end of the day)
Exercises & Homework:	Due on the due date (as listed in Canvas) by 11:59 p.m.

Welcome to the Course!

As you settle into online learning, please understand that regular and effective communication between you and Dr. DePaula and Dr. Bowman is essential to your success as an online learner. We look forward to providing this course and teaching you about Informatics.

Course Description and Learning Outcomes

Course Description

We live in a world where most social activities are affected by, or require knowledge of, information technologies. This course introduces students to the discipline of informatics—how information technologies are developed, applied, and utilized in society. This course examines the most important issues at the intersection of information, technology and society. First, it covers the basics of digital data representation and computer programming. Secondly, it covers how to operate, analyze and visualize datasets in spreadsheet software. Thirdly, it covers issues

of science, uncertainty, misinformation and ethics. Lectures and exercises are focused on various contexts, including politics, economy, health and medicine. Students develop technical skills in coding and data science via Python or other languages, and reasoning skills via thoughtful and targeted discussion posts and writing assignments.

Learning Outcomes

By the end of this course students will be able to:

1. Distinguish among the major components of computers, the Internet, and databases.
2. Code basic functions and operations in a programming language such as Python.
3. Extract and operate online datasets via spreadsheet software (e.g. Excel).
4. Analyze and visualize online datasets with basic statistical techniques.
5. Discuss the role of information and technologies across society and organizations.
6. Evaluate the quality of information based on aspects of science and reasoning.
7. Explain ethical and policy issues concerning information, technology and society.

Course Calendar

NOTE: All specific due dates will be found in Canvas and assignments may shift a week or two depending on the class's understanding of the materials.

Week	Content	Readings	Exercises & Assignments	Labs
<i>Week 1</i> 9 / 01	What is Informatics?	• TBD (see Canvas)	<ul style="list-style-type: none"> • Introduction Video Assigned • Weekly Discussions Assigned 	<ul style="list-style-type: none"> • Server Access / Setup Environment
<i>Week 2</i> 9 / 08	Markup Languages	• TBD (see Canvas)	<ul style="list-style-type: none"> • Intro Video Due 	<ul style="list-style-type: none"> • Lab 1: HTML / CSS I
<i>Week 3</i> 9 / 15	HCI & UX Design	• TBD (see Canvas)	<ul style="list-style-type: none"> • Lab 1 Due 	<ul style="list-style-type: none"> • Lab 2: HTML/CSS II
<i>Week 4</i> 9 / 22	Programming in Python	• TBD (see Canvas)	<ul style="list-style-type: none"> • Lab 2 Due 	<ul style="list-style-type: none"> • Lab 3: Python I
<i>Week 5</i> 9 / 29	Security & Privacy	• TBD (see Canvas)	<ul style="list-style-type: none"> • Lab 3 Due 	<ul style="list-style-type: none"> • Lab 4: Python II
<i>Week 6</i> 10 / 06	What is Data?	• TBD (see Canvas)	<ul style="list-style-type: none"> • Lab 4 Due 	<ul style="list-style-type: none"> • Lab 5: Excel

Week 7 10 / 13	Basic Statistics	• TBD (see Canvas)	• Lab 5 Due	• Lab 6: PSPP
Week 8 10 / 20	Information Visualization	• TBD (see Canvas)	• Lab 6 Due	• Lab 7: Info Viz
Week 9 10 / 27	Databases	• TBD (see Canvas)	• Lab 7 Due	• Lab 8: MySQL and MongoDB
Week 10 11 / 03	Advanced Data Analytics	• TBD (see Canvas)	• Lab 8 Due	
Week 12 11 / 10	Science, Society and Cognition	• TBD (see Canvas)		• Essay Assigned
Week 13 11 / 17	Information Ethics	• TBD (see Canvas)		
Week 14 11 / 24	THANKSGIVING BREAK			
Week 15 12 / 01	Underrepresentation in STEM & Diversity, Equity, and Inclusion	• TBD (see Canvas)		
Week 16 12 / 08	Misinformation, Disinformation, and Baloney	• TBD (see Canvas)		
Finals Week 12 / 15	Careers in Informatics / Information Science	• NO Readings / Just Information	• Essay Due • All weekly discussions and replies will be evaluated	

Graded Course Assignments

Course Discussions	[30 pts total]
<p>You will be required to participate actively in the course; this allows you to “know” the material we cover. As Neil deGrasse Tyson stated: “Part of what it is to be scientifically-literate, it's not simply, 'Do you know what DNA is? Or what the Big Bang is?' That's an aspect of science literacy. The biggest part of it is do you know how to think about information that's presented in front of you.” <i>To create knowledge, one must read and reflect upon the information we are presented.</i></p> <p>Know that you each have a unique voice. We will ask you to reflect on what you have learned; each of you will be assigned <i>discussion weeks</i> during the first week of the course (number of discussions will</p>	

be determined based on number of students). To understand the multiple viewpoints of each student, each of you will be required to participate. This allows us to better understand the readings, as we all have different frames of reference that we utilize to translate the information to knowledge.

In your assigned week, you will reflect upon the readings and post a thoughtful, short video/audio/text response that incorporates what you have learned and how you can associate this new knowledge with something else you have experienced. Think of these as preparation for your professional careers, whether it be for a job interview, reference interviews, or staff meeting presentations.

You can create the audio/video directly in Canvas. Other options include uploading your audio/video to your OneDrive account and sharing the link, creating an unlisted channel on YouTube and sharing the link, or utilizing another service (such as GoogleDrive, Dropbox, or Box) and sharing the link.

We will examine your posts and evaluate them on depth of reflection and ideas expressed. You can use your computer, tablet, or phone to record your audio/videos *in a professional manner*; please don't hold your video recording device and move around while recording--shakiness makes videos difficult to watch.

You will also be required to respond to other students' posts.

NOTE: We may not personally respond to every discussion posted, but we will review each of them.

Labs

[40 pts total; each 5 pts]

These labs will provide you with practice, **which is extremely necessary to learn these skills.** Practice makes perfect!

Your lab submissions will be considered as lab points toward your final grade. We will post working versions of the labs for you to compare with your own submission after each lab is due. If we find that many of you have problems with similar aspects of the labs, we will post additional lecture materials describing the problem area.

Essay

[30 pts total]

This essay will be 5–7 pages (APA Style 7th Edition) and will be due at the end of the semester in which it is assigned. Your essay will focus on a topic of interest to you from our semester. The assigned readings, class discussions, and other activities are intended to create a learning community and to promote critical literacy skills among all students -- skills of reading, writing, listening, speaking, and thinking. The success of these activities will require substantive and meaningful contributions from all students.

In this 5–7-page essay, you have an opportunity to demonstrate what you have learned. As you write this essay, make explicit reference to readings that you find to be relevant to your essay topic. When your essay is completed, you will send it to the instructor as an email attachment.

Your essay will be APA style, 5—7 pages double-spaced, with standard margins for an APA paper. You will use a 12pt sans-serif font. Any cited references will be expected to be in APA format.

Textbooks, Readings, Software, and Style Manual

Textbooks:

Please note - you need to log into WSU's portal before you can follow the link to the textbooks.
All textbook reading will be freely available via WSU Library E-Resource

Weinberger, D. (2011). *Too big to know: Rethinking knowledge now that the facts aren't the facts, experts are everywhere, and the smartest person in the room is the room*. New York: Basic Books. <https://elibrary.wayne.edu/record=b59444393~S47>

...more TBD.

Software / Hosting Services

- WSU Global Protect VPN: <https://tech.wayne.edu/kb/security/wsuvirtualprivatenetwork/500212>
- Visual Studio Code: <https://code.visualstudio.com/>

Style Manual

Please note, any written assignments will be required to be in APA formatting.

Publication Manual of the American Psychological Association (2019). 7th edition.
Washington, DC: American Psychological Association.

Communicating

Communication Options:

1. Each week we will hold a one-hour online meeting. We'd like to get to know each of you so that we can assist you throughout the semester, therefore we would recommend you attend at least one office hour session early in the semester so that we can get to know each other. We are here to instruct you and help you, so take advantage of the online meetings. **We will post an announcement early in the semester regarding where and when these meetings will take place.**

NOTE: If no students attend by 15 minutes past the scheduled meeting time, we may sign out of the meeting unless we have an appointment with you to meet at a specific time (**Remember:** You can always email us through Canvas and request a time to meet).

2. The second option to communicate will be through the online discussion board for this course on Canvas.
3. The third option for you is to **email us through the Canvas Inbox**. We check email daily beginning Mondays after 9am through Saturdays at 5pm (we may not always answer emails on Sunday). We will attempt to respond to everyone within 48 hours during typical business hours Monday through Friday; we will respond as soon as possible to emails that arrive on Saturday or Sunday.

NOTE: If you email shortly before an assignment is due, please note that we may not see it in time to help you before the assignment is due in Canvas.

4. Communicating by phone is a fourth option, so please do not be hesitant to call 1 (888) 497-8754 Ext. 702 (Dr. Bowman) or 1 (888) 497-8754 Ext. 724 (Dr. DePaula) if you would like a voice-to-voice conversation; if we do not answer, please leave a message with your name and phone number and we'll return your call as soon as possible.
5. The fifth option is emailing us through personal Wayne State University email (timothy.d.bowman@wayne.edu and ndeaula@wayne.edu). Although this seems like it might be the 1st or 2nd option, we would ask to you to only use this if you don't hear from us within 48 hours after you've either emailed through Canvas, posted a question on the discussion board, or called and left a message.

However, please note that our personal mailboxes are swamped with all sorts of messages and sometimes it's hard to quickly filter out relevant emails. If you do email us in this manner, please add **INF4010** to the beginning of your mail subject line! Otherwise, it might get lost in the sea of emails we receive daily.

Online Netiquette

- Check Canvas and your WSU email daily.
- Never share your ID and password with anyone.
- Respect others and keep an appropriate tone, even when their opinions differ from your own.
- Capitalize only to highlight an important point or to distinguish a title or heading. An entire word or sentence in caps is often considered shouting and is strongly discouraged.
- Avoid negativity and inappropriate materials. If you wouldn't say it in person, don't say it online.
- Double check your grammar and spelling mistakes. The way we write is the way we portray ourselves.
- Avoid slang and abbreviations.
- Respect others' time and privacy and avoid sending unnecessary emails.
- Stick to the point and focus on making a clear and relevant contribution.

Community Ground Rules

1. Consider yourself a member of a community. A community is a group of individuals, working together to support a common goal or interest. We are working together to support the successful achievement of our learning outcomes.
2. Log-in and participate regularly to group conversations and activities.
3. Treat the diverse contributions made by other community members with respect.
4. Have patience and a sense of humor with technology.
5. Be a learner. Keep an open mind when introduced to new ideas that may challenge your perceptions.
6. Ask for help when you need it and assist others when possible.
7. Understand that communications shared through text have higher likelihood of being misinterpreted than spoken words. Therefore, when you type a thought or comment, read it carefully before submitting it. If you question the way it is worded, read it aloud. If you still question the way it's phrased, re-write it.
8. Contribute regularly to group dialogue, including discussion board postings, replies, and other group activities. The contribution of everyone enhances the collective strength and diversity of our community.
9. If, at any time, you feel that any of these ground rules has been violated by a member of our community, you are encouraged to bring your concern directly to me. Clearly identify which group rule has been violated and included specific evidence of the violation in your email or phone call. Your concerns will be addressed promptly and in an individualized manner.

Source: [Community Ground Rules](#)

Learner Expectations

This is a *fast-paced* course that **requires** engagement. Make sure to review the due dates for the assignments to orient yourself to the flow of learning. You are expected to log into the course site on the first day of each learning unit to access the new learning unit, orient yourself to the due dates for the week, and **plan your time**. You will also be expected to practice by following along with the examples in the readings; if you do not try out the examples, you will not learn nor will you succeed in this course and the labs.

Online courses can be deceiving. Often new online learners expect them to be easier than face-to-face classes and are surprised to learn how challenging they can be.

If you find that you need assistance, it is your responsibility to reach out for extra help. I am here to help you as needed, but I need you to maintain open communications with me throughout the class. Ensure that you have approximately 8-10 hours per unit to spend on this learning community and take time to identify where and when you will do your learning.

Stay in contact with us; if you are having problems, let us know ASAP and we will try to help!

Learning from Each Other:

In this course, you will not be a passive learner. For this course to be successful, you will need to interact with each other and both instructors. Our role is to facilitate interactions in the course, but your participation is required. As a “knowledge-generator”, you will be responsible for constructing and managing your own learning. This will make you an active partner in generating knowledge. Therefore, as you are learning, so are your peers. We all must be committed to this online learning environment and we need to establish purposeful connections. The success of this course depends on the quality of our interactions.

Grading Scale

<https://bulletins.wayne.edu/undergraduate/general-information/academic-regulations/>

Final grades are available on [Academica](#). Grades are not mailed to students. Final grades are recorded under the following system.

The grading scale used for this course is a point system with 100 points being a perfect score.

Undergraduate Grades

Letter	Description	GPA
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A	Excellent	4.00 grade points per credit
A -	Excellent	3.67 grade points per credit
ANC	Excellent	no credit
B +	Good	3.33 grade points per credit
B	Good	3.00 grade points per credit
B -	Good	2.67 grade points per credit
BNC	Good	no credit
C +	Fair	2.33 grade points per credit
C	Fair	2.00 grade points per credit
C -	Fair	1.67 grade points per credit
CNC	Fair	no credit
D +	Poor	1.33 grade points per credit
D	Poor	1.00 grade points per credit
D -	Poor	0.67 grade points per credit
F	Failure	0.00 grade points per credit
P	Passed	
PNC	Pass	no credit
N	Not passed	
NNC	Not passed	no credit
S	Satisfactory	
SNC	Satisfactory	no credit
U	Unsatisfactory	
UNC	Unsatisfactory	no credit
M	Marginal pass	

Passing this course:

You cannot pass this course without earning a passing grade average; submitting all work is not a guarantee that you will pass the course. Grades of "I" (Incomplete) may be assigned in this

course after discussion with the instructor, but depending on the circumstances, there will be a penalty applied at the discretion of the instructor.

Student should expect to devote **at least 8 to 10 hours a week to the readings, resources (including lectures), labs, and coursework/assignments.**

Course Policies

Academic Integrity

Students are expected to be honest and forthright in their academic studies. Academic misbehavior means any activity that tends to compromise the academic integrity of the institution or subvert the education process. All forms of academic misbehavior, including but not limited to plagiarism and cheating, are prohibited at Wayne State University, as outlined in the *Student Code of Conduct*. Students who commit or assist in committing dishonest acts are subject to downgrading and/or additional sanctions as described in the *Student Code of Conduct*. Faculty and students are responsible for knowing the different forms of academic dishonesty as well as for being aware of the *Student Code of Conduct*. Complete details are provided on the Dean of Students website: www.doso.wayne.edu/academic-integrity.html

Course Drops and Withdrawals

In the first two weeks of the (full) term, students can drop this class and receive 100% tuition and course fee cancellation. After the end of the second week there is no tuition or fee cancellation. Students who wish to withdraw from the class can initiate a withdrawal request on Academica. You will receive a transcript notation of WP (passing), WF (failing), or WN (no graded work) at the time of withdrawal. No withdrawals can be initiated after the end of the tenth week. Students enrolled in the 10th week and beyond will receive a grade. Because withdrawing from courses may have negative academic and financial consequences, students considering course withdrawal should make sure they fully understand all the consequences before taking this step. More information on this can be found at:

<https://reg.wayne.edu/students/information#dropping>

E-Portfolio Requirements

An E-Portfolio is required for graduation by all students who entered the MLIS in Fall 2009 and thereafter. Details may be found on the SIS website:

<http://sis.wayne.edu/students/eportfolios/index.php>

Grading Policies

Either refer students to the SIS policies website (specifically “Academic Progress”) or communicate specific policies regarding Incompletes, Withdrawals and late work for this class.

Student Privacy and Information Security

SIS follows all WSU policies and procedures regarding student privacy and security as outlined by the Family Educational Rights and Privacy Act (FERPA)--a federal mandate:

<http://reg.wayne.edu/students/privacy.php>

Graduate Professional Student Responsibilities

Graduate professional education in SIS is rigorous and substantial. Students have a responsibility to be prepared for class, participate effectively and interact appropriately with students and instructors alike. Communication, whether written or oral, should be professional and adhere to generally acceptable courtesy expectations. Being on time is an integral component of professional behavior.

Religious holidays (from the online Academic Calendar):

Because of the extraordinary variety of religious affiliations of the University student body and staff, the Academic Calendar makes no provisions for religious holidays. However, it is University policy to respect the faith and religious obligations of the individual. Students with classes or examinations that conflict with their religious observances are expected to notify their instructors well in advance so that mutually agreeable alternatives may be worked out.

Student Disabilities Services:

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. The SDS telephone number is 313-577-1851 or 313-202-4216 for videophone use. Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University. You can learn more about the disability office at www.studentdisability.wayne.edu

To register with Student Disability Services, complete the online registration form at:

https://wayne-accommodate.simplicity.com/public_accommodation/

Counseling and Psychological Services (CAPS):

It is quite common for college students to experience mental health challenges, such as stress, anxiety and depression, that interfere with academic performance and negatively impact daily life. Help is available for any currently enrolled WSU student who is struggling with a mental health difficulty, at WSU Counseling and Psychological Services (caps.wayne.edu; 313 577-3398). Other options, for students and nonstudents, include the Counseling and Testing Center, and the Counseling Psychology Training Clinic, in the WSU College of Education (coe.wayne.edu/tbf/counseling/center-index.php). Services at all three clinics are free and confidential. Remember that *getting help, before stress reaches a crisis point, is a smart and courageous thing to do* – for yourself, and for those you care about. Also, know that the WSU

Police Department (313 577-2222) has personnel trained to respond sensitively to mental health emergencies at all hours.

Academic Dishonesty -- Plagiarism and Cheating:

Academic misconduct is any activity that tends to compromise the academic integrity of the institution or undermine the education process. Examples of academic misconduct include:

- *Plagiarism*: To take and use another's words or ideas as your own without appropriate referencing or citation.
- *Cheating*: Intentionally using or attempting to use or intentionally providing unauthorized materials, information or assistance in any academic exercise. This includes copying from another student's test paper, allowing another student to copy from your test, using unauthorized material during an exam and submitting a term paper for a current class that has been submitted in a past class without appropriate permission.
- *Fabrication*: Intentional or unauthorized falsification or invention of any information or citation, such as knowingly attributing citations to the wrong source or listing a fake reference in the paper or bibliography.
- *Other*: Selling, buying or stealing all or part of a test or term paper, unauthorized use of resources, enlisting in the assistance of a substitute when taking exams, destroying another's work, threatening or exploiting students or instructors, or any other violation of course rules as contained in the course syllabus or other written information.

Such activity may result in failure of a specific assignment, an entire course, or, if flagrant, dismissal from Wayne State University. <https://doso.wayne.edu/conduct/academic-misconduct>

Student Services:

- **The Academic Success Center** (1600 Undergraduate Library) assists students with content in select courses and in strengthening study skills. Visit www.success.wayne.edu for schedules and information on study skills workshops, tutoring and supplemental instruction (primarily in 1000 and 2000 level courses).
- **The Writing Research and Technology Zone** is located on the 2nd floor of the Undergraduate Library and provides individual tutoring consultations free of charge. Visit <http://clasweb.clas.wayne.edu/> writing to obtain information on tutors, appointments, and the type of help they can provide.
- **Library research assistance**: Working on a research assignment, paper or project? Trying to figure out how to collect, organize and cite your sources? Wayne State librarians provide on- campus or online personalized help. Contact them at: https://library.wayne.edu/forms/consultation_request.php

Class recordings:

Students need prior written permission from the instructor before recording any portion of this class. If permission is granted, the audio and/or video recording is to be used only for the

student's personal instructional use. Such recordings are not intended for a wider public audience, such as postings to the internet or sharing with others. Students registered with Student Disabilities Services (SDS) who wish to record class materials must present their specific accommodation to the instructor, who will subsequently comply with the request unless there is some specific reason why s/he cannot, such as discussion of confidential or protected information.