INFOST 350: Introduction to Application Development (3 Credits)
Spring 2019 SYLLABUS

Instructor and Email: Anthony Jesmok aijjesmok@uwm.edu (pronouns: he/him/his)
Office Location and Hours: Off-Campus, By appointment at area coffee shops or online chat.
Meeting Times & Location: NWQ 1990, 5:30 to 8:10 PM Mondays

CATALOG DESCRIPTION
Introduction to the fundamental concepts of application development. Basic application development concepts will be explained, analyzed, and practiced.

EXPANDED COURSE DESCRIPTION
This course acquaints students with the core concepts of software development from an Information Studies perspective. Students will learn how to develop basic software using the Python programming language that can be applied to further coursework and careers in application development and information technology.

PREREQUISITES
INFOST 110 (C or Better) or instructor consent. Students should have basic computer literacy, such as typing, accessing the internet, and troubleshooting skills.

LEARNING OBJECTIVES
Upon completion of the course, students will be able to:
1. Explain fundamental programming concepts including variables, logical statements, functions, operations, and usage of various data types.
2. Create working application logic to conduct basic tasks using a programming language.
3. Verbally discuss and explain application logic and programming language usage.
4. Apply computational thinking principles to analyze and solve problems.

METHODS
Lecture, hands-on assignments, quizzes, in-class activities.

EXPECTED TIME REQUIREMENT
This course requires a weekly time commitment. General university guidelines indicate that a 3-credit course requires a minimum 144 hour time commitment over the semester. This time commitment represents a minimum of 9-10 hours of work per week per course. 3 hours are for the in-person meeting, so 6 or more hours should be devoted to working on assignments and independent study.

REQUIRED MATERIALS AND TECHNOLOGY REQUIREMENTS
The textbook for this course is optional. Students who have previously studied programming or are already familiar with Python may not need this textbook. However, it will be referenced during class and it does provide additional optional exercises and explanations for the concepts explained. A copy of the book is also available for two-hour checkout times at the UWM Library course reserves, ask the front desk for more details.

Computer Requirement: Students must be able to access a computer with internet outside of the classroom for assignments. The NWQ has computer lounges, but a personal computer is strongly recommended.

For non-Canvas technical assistance, contact SOIS Tech: (414) 229-4707, soistech@uwm.edu, http://uwm.edu/informationstudies/resources/it/.
For Canvas assistance, you can contact Canvas 24/7: https://uwm.edu/canvas/students/.

ACADEMIC HONESTY
Helping each other is encouraged, but each student’s work must ultimately be their own. The instructor runs automated and random manual checks on assignments for signs of academic dishonesty. There is no collaboration allowed on quizzes or the final project. Academic misconduct may result in a lowered grade, no credit for an assignment, or removal from the course. Serious incidents may be handled at the University level with consequences including suspension, probation, or expulsion. The Associate Dean of SOIS is currently responsible for managing and investigating academic honesty escalated to the University level.

ATTENDANCE
For one to succeed and pass this course, consistent practice and attendance are crucial. With this being said, circumstances may arise where a student misses class. Students are allowed one unexcused absence. An excused absence needs to be cleared with the instructor via email. The instructor reserves the right to refuse a request for an excused absence. Documentation is required for excused absences if the situation requires. Each absence beyond those excused and the one unexcused will result in points lost in the “Attendance” section of grading. At the end of class, a word will be put on the board that you will enter into Canvas for attendance points. Please do not leave class until the points for the week have posted to your gradebook.

Please make your best effort to arrive to class on time. Circumstances may occasionally prohibit this, but being tardy can be inconsiderate and disruptive. If students begin showing chronic tardiness, an additional attendance check, with points, may be implemented at the beginning of class.

EMAIL POLICY
Please feel free to email questions regarding assignments, to request further clarification of an issue, or to request an excused absence. You do not need to go into deep details, but communication is important. However, do not abuse email. If you have other means of obtaining what you missed (like Canvas) try that option. Emails should use proper language and respect.

ASSIGNMENTS AND GRADING SCALE

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Quizzes</th>
<th>Attendance</th>
<th>Final Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming or short answer weekly assignments.</td>
<td>Multiple choice quizzes based on lecture material.</td>
<td>Attending class and checking in via Canvas.</td>
<td>A final program presented during the last two sessions.</td>
</tr>
<tr>
<td>40% of Final Grade</td>
<td>15% of Final Grade</td>
<td>10% of Final Grade</td>
<td>35% of Final Grade</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
<th>A</th>
<th>B+</th>
<th>B-</th>
<th>C</th>
<th>D+</th>
<th>60-63.99</th>
<th>D-</th>
<th>96-100</th>
<th>90-95.99</th>
</tr>
</thead>
<tbody>
<tr>
<td>87-90.99</td>
<td>B+</td>
<td>80-83.99</td>
<td>B-</td>
<td>74-76.99</td>
<td>C</td>
<td>67-69.99</td>
<td>D+</td>
<td>60-63.99</td>
<td>D-</td>
<td></td>
</tr>
<tr>
<td>84-86.99</td>
<td>A-</td>
<td>77-79.99</td>
<td>C+</td>
<td>70-73.99</td>
<td>C-</td>
<td>64-66.99</td>
<td>D</td>
<td>&lt; 60</td>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>
**LATE ASSIGNMENTS AND QUIZZES**
Not accepted. Students who fail to submit an assignment or quiz by the due date will be given a grade of 0% with no chance of re-dos unless an extenuating circumstance, with appropriate documentation, exists. Exceptions to this policy are rare.

**STUDENT LIFE RESOURCES**
**Resource Centers:** UWM provides assistance for students in the form of resource centers. These are offered through the Division of Student Affairs and you can explore them online at [https://uwm.edu/studentaffairs/](https://uwm.edu/studentaffairs/). Resources include the LGBT+ Resource Center, Women’s Resource Center, and various cultural centers.

**Mental Health:** Students with mental health concerns are encouraged to contact Norris Health Center University Counseling Services. Information is available at [https://uwm.edu/norris/counseling/](https://uwm.edu/norris/counseling/) and sessions are available at no cost to on-campus students. The instructor is willing to listen and provide guidance towards resources. For emergencies, call 911 or the UWM Police emergency line at 414-229-9911. The National Suicide Prevention Hotline is 1-800-273-8255 or online chat is available at [http://chat.suicidepreventionlifeline.org](http://chat.suicidepreventionlifeline.org).

**Title IX:** The instructor is a mandated reporter under Title IX of the Civil Rights Act and must report any instance of discrimination or unfair treatment on the basis of sex, such as harassment, violence, and exploitation. If a person is uncomfortable reporting these to the instructor, and thus to the Title IX Coordinator, referrals to confidential resources can be made upon request. You can learn more about Title IX at [https://uwm.edu/titleix/](https://uwm.edu/titleix/).

**UWM AND SCHOOL OF INFORMATION STUDIES ACADEMIC POLICIES**
Students should be aware of all University policies relevant to all courses on campus. This includes military deployment, students needing accommodations, discrimination, religious observances, and others. You can view these policies online at [https://uwm.edu/secu/syllabus-links/](https://uwm.edu/secu/syllabus-links/). In addition, resources and policies from the School of Information Studies are available at [https://uwm.edu/informationstudies/resources/faqs/](https://uwm.edu/informationstudies/resources/faqs/).

Students may also want to explore One Stop Student Services at [https://uwm.edu/onestop/](https://uwm.edu/onestop/) and graduate students should also explore the Master’s Toolbox at [https://uwm.edu/graduateschool/masters-toolbox/](https://uwm.edu/graduateschool/masters-toolbox/).

**GENERAL EXPECTATION OF RESPECT**
It should go without saying that the expectation is that everyone in this course treats everyone else (instructors, other students, guest speakers), ourselves (motivation, work ethic, etc.), and the items around us (equipment, rooms, etc.) with the utmost respect. This classroom is meant to be a casual and friendly environment - let’s keep it that way by remembering the concept of respect as we work together.
<table>
<thead>
<tr>
<th>Week:</th>
<th>Resources:</th>
<th>In-class, we did these activities:</th>
<th>By the start of class next week, complete:</th>
</tr>
</thead>
</table>
| 1/28         | Introductory Email from Anthony Matthes 499-503 | ● Class Introduction  
   ○ Syllabus  
   ○ Personal Introductions  
   ○ Canvas Login  
   ○ Student Information Sheets  
   ○ Academic Honesty Agreement  
   ○ Repl.it Overview  
   ● Introduction to Software  
   ○ What Is Software?  
   ○ Why Study Programming?  
   ○ History of Programming and Python Language  
   ● Computational Thinking  
   ○ How To Think Like a Computer  
   ○ Problem Solving Examples and Activity | ● Quiz 1  
   ● Skills Practice 1 |
| 2/4          | Matthes 19-23, 30-36                | ● Basic Data Types and Manipulation  
   ○ Variables  
   ○ Operators  
   ○ Mathematics | ● Quiz 2  
   ● Skills Practice 2 |
| 2/11         | Matthes 23-30, 37-52, 65-74, 95-115 | ● Complex Data Types  
   ○ Lists  
   ○ Tuples  
   ○ Dictionaries  
   ○ Strings | ● Quiz 3  
   ● Skills Practice 3  
   ● Instructor Evaluation #1 |
| 2/18         | Matthew 53-64, 75-94, 117-132       | ● Logical Programming  
   ○ Decisions  
   ○ For and While Loops  
   ○ Break, Continue, and Pass  
   ○ Advanced Use Cases | ● Quiz 4  
   ● Skills Practice 4 |
| 2/25         | Matthes 133-159                    | ● Compartmentalizing Code With Functions  
   ● Exception Handling  
   ● Software Design With Functions | ● Quiz 5  
   ● Skills Practice 5 |
| 3/4          | None                                | ● Professional Development Week  
   ○ Guest: J. Dietenberger, International Technology and Business Consultant  
   ● Resume and Career Tips and Tricks | ● Skills Practice 6  
   (Professional Development Reflection) |
| 3/11 and 3/18| None                                | ● Putting It All Together: Computational Thinking Applied  
   ● Midterm Assignment  
   ● No Class 3/18 - Spring Break | ● Quiz 6  
   ● Skills Practice 7  
   (Midterm) |
<table>
<thead>
<tr>
<th>Date</th>
<th>Assignment Title</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/25</td>
<td>Matthew 377-393</td>
<td>Importing and Using Packages, External Data, Examples of JSON API Retrieval</td>
</tr>
<tr>
<td>4/1</td>
<td>API Docs in Canvas</td>
<td>Using Python Packages To Do Cool Stuff, Twilio SMS, Amazon API, Final Assignment Overview with Q&amp;A</td>
</tr>
<tr>
<td>4/8</td>
<td>API Docs in Canvas</td>
<td>Anthony At Conference - See Canvas for Recorded Lecture and Assignments, Graphical User Interfaces (TKinter)</td>
</tr>
<tr>
<td>4/15</td>
<td>None</td>
<td>What's Next?, Pathways for Future Study and Careers, Final Exam Procedure Overview, Work Session for Finals</td>
</tr>
<tr>
<td>4/29 and 5/6</td>
<td>None</td>
<td>Final Presentations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Have a Great Summer!</td>
</tr>
</tbody>
</table>