Course Outline

Western University Faculty of Science
Department of Computer Science

General Course Information

Course Information:

Computer Science 1032A - Information Systems and Design Course Outline **– Summer 2021**

Calendar Description:

Techniques used for determining technological needs of businesses; building and managing systems to meet those needs; development roles of individuals and organizations; planning and management of concepts, personnel and processes; related software tools (spreadsheets, databases).

This course satisfies the Information Technology requirement for a Certified Accountant, a Certified General Accountant or a Certified Management Accountant accreditation. The content of the course has been approved by The Institute of Chartered Accountants of Ontario, The Certified General Accountants of Ontario and The Society of Management Accountants of Ontario. The materials used in this course for the introduction to Microsoft applications software have been approved by Microsoft for use in the preparation for the Microsoft Office Specialist Certification exams.

Prerequisites

None.

Antirequisites

Management and Organizational Studies (MOS) 1033A/B.

Instructor:

L. De Luca   **[Section 650]**

Office Hours: Online, by appointment only

E-Mail: ldeluc5@uwo.ca

Required Course Material:

Experiencing MIS, Fifth (5th) Canadian Edition, with MyLab MIS

    D. Kroneke, R. J. Boyle, A. Gemino, P. Tingling (2019)

eText and MyLab MIS key available online via the UWO bookstore:

or directly from Pearson:

http://www.pearsonmylab.com/

When registering with MyLab MIS, use the following course code provided under 'Getting Started' on the course site and ensure you sign up with your Western e-mail ending in @uwo.ca.

While the textbook (or eText) is required for this course, the online MyLab MIS component is optional but highly recommend for studying purposes. If you have a physical copy of the textbook, you may purchase the optional MyLab MIS component separately from the eTextbook directly from Pearson.

Technology Requirements:

To successfully complete this course, all students **must** have access to a personal computer that meets or exceeds the following requirements:

Operating System: Windows 10, Windows 8.1, Windows 8, or Windows 7 Service Pack 1

Minimum Memory (RAM): 2GB

Minimum Free Disk Space (Hard Disk Size): 6GB

Minimum Monitor Resolution: 1280 x 800

Minimum Processor (CPU): Dual-core 2 GHZ or faster

Browser: Chrome 63 or newer, Firefox 70 or newer, or IE 11

Browser Plug-Ins: Javascript Enabled & Third Party Cookies Enabled

Internet Connection: Reliable high-speed internet connection *(0.5+ Mbps)*

Computer Peripherals: Webcam *(can be built into laptop)*, **microphone** *(can be built into webcam or laptop)*, keyboard, and mouse

** IMPORTANT ** MS Access does NOT run on an Apple computer !

Other arrangements must be made in advance.

Software Requirements:

The following software will be used in this course. Microsoft Office is provided for free to most students enrolled at Western, all other software listed is available for free. It is the student's responsibility to ensure the following software is compatible with, installed and working on their home computer.

Microsoft Office 365:

- Excel
- Word
- Access *(Windows only!!)*

Internet Browser:

- Firefox 70 or newer
- **OR** Chrome 63 or newer
- **OR** IE 11 *(not recommended for MyLab MIS)*

Plain Text Editor:

- NotePad++ *(Windows only)*
- **OR** Brackets

E-R Diagram Tool:

- Dia Diagram Editor

Remote Backup Service:

- OneDrive
- **OR** Dropbox, other version control, etc.

By taking this course, you are declaring that you meet all technology and software requirements, including access to a reliable internet connection, a Windows PC, a webcam, and microphone.

Course Topics:

- Communications and Network Technology
  - Internet, WWW
  - Markup Languages: HTML, XML
  - Networks: LAN, WAN, VPN
- Database Systems
  - Relational database concepts
  - Database design: Entity Relationship Diagrams
  - Query languages: SQL
  - Creating and using databases: Access
- Information Systems
  - Enterprise Resource Planning systems
  - Reliability, availability, maintainability and integrity
  - Security
  - Systems Development Life Cycle
- Spreadsheet applications
  - Designing and using spreadsheets: Excel

Course Web Page:

The course website is located within OWL. To access the website, navigate to http://owl.uwo.ca and login with your Western University personal computer account (user id and password). Lecture & tutorial videos, assigned readings, notes, assignments and class information will be posted at this site. You are responsible for checking the course site regularly.

This course is offered asynchronously, meaning that there will be no set meetings times. Instead, you'll determine your own schedule for working through course activities and materials each week so that you can meet the course deadlines. New material will be posted each week including video lectures, tutorials and slides. These can be found in the Course Content tab in the OWL course site. Students are expected to complete all weekly tasks including assigned readings and exercises in the week they are assigned and well in advance of any other stated deadlines.

Teaching Assistant Consulting:

Consulting will take place online. Questions regarding assignments or lecture materials can be directed to a Teaching Assistant (TA) or through the Assignment Discussions in the OWL Forums section on OWL. Questions requiring further information can be dealt with by contacting the course instructor. A list of teaching assistants and their contact information will be posted to OWL once available.

Time zone and Scheduling of Course Components:

All times listed in this document and on the OWL course site are assumed to be in Eastern Time (the local time of the Western University campus) unless otherwise stated. Quizzes and exams will be scheduled for the Eastern Time Zone. Students must ensure they are available during these times even if they are located outside of Ontario. No alterative deadlines, quiz dates/times, or exam dates/times will be offered for students outside of the Eastern Time Zone.

Student Evaluation:

Element	Weight
6 Assignments	30%
2 Online Quizzes	20%
Final Exam	50%

To be eligible to obtain a passing mark in the course, the final exam grade **must** be 49% or higher **AND** the weighted assignment average **must** be 49% or higher. There will be **no exceptions** or waiving of this requirement for any reason or circumstance.

Assignments:

Students are expected to view the lecture materials and complete the online exercises to prepare for the assignments. Once the assignment is completed, all parts of the assignment must be submitted on the OWL site. It is the **student's responsibility** to ensure that all parts of each assignment are correctly uploaded and submitted in OWL, to ensure that the assignment can be marked accordingly.

Note: Assignments emailed to the instructor or teaching assistant **will not be** accepted, unless there are extenuating circumstances and prior approval from the instructor.

The following is the tentative assignment schedule (subject to change):

Assignment	Weight	Tentative Topic	Due Date (by 6 PM)
1	2%	Situational Setup	May 12th , 2021
2	5%	Database Design (ERDs)	May 26th , 2021
3	5%	Microsoft Access	June 9th , 2021
4	6%	XML Documents	June 23rd , 2021
5	6%	Queries and SQL	July 7th , 2021
6	6%	Microsoft Excel	July 19th, 2021

The due dates of the assignments are shown in the table above. Please note that all these dates are tentative. The due dates will be confirmed when the assignments are posted on OWL. The dates will coincide with the class progression on subsequent topics.

Where possible, the instructions for each assignment will be posted on the course website at least 1 week in advance of the due date.

If for any reason the assignment schedule given above cannot be adhered to, the assignment marks will be pro-rated. The six (6) assignments are worth 30% of the overall mark for the course. If an assignment must be cancelled for any reason, the remaining assignment weights will be prorated to add up to 30%.

Assignment Marking:

- Assignments will be marked by a TA within 2 weeks of the assignment due date where possible.
- Individual marks and a detailed marking scheme will be posted on the OWL site once marks are returned.
- Questions regarding the marking of assignments should **first be directed to the teaching assistant** that graded your assignment and then the course instructor **assigned to your section** if your discussion with the teaching assistant was not satisfactory.
- Requests for mark adjustments will only be considered if they are made within **1 week** of receiving the assignment mark and have been first discussed with the teaching assistant who marked the assignment. **Assignment marks will be final after that date.**
- Requests for mark adjustments will only be considered when they are for adjustments of **5 marks or greater**.

Late Policy for Assignments:

- **It is expected that students budget enough time to properly submit their assignments** via OWL and allow for any unforeseen technological issues. **6 PM Eastern Time is a hard deadline** and no extensions or relief will be given for assignments that just miss this deadline or miss the deadline due to technological issues. **Students are expected to regularly backup their assignments and submit well before any deadline.**
- Assignments submitted after 6:00 PM on the due date but before 6:00 AM on the day after the posted due date will be **deducted 10% of the total grade.**
- Assignments submitted after 6:00 AM on the day after the due date but before 6:00 PM on the day after the due date will be **deducted 25% of the total grade.**
- Assignments submission will be closed at 6:00 PM on the day after the posted assignment due date.
- No assignments can be submitted to OWL after 6:00 PM on the day after the posted assignment due date and will receive a grade of 0.
- Late assignments will have a penalty of **10% or 25% of the maximum mark for the assignment** deducted based on time of submission as listed in OWL. Thus, if a student would have received 90% on an assignment, if it was submitted three hours late the student would receive 80%, if it was submitted twenty hours late the student would receive 65%.
- **No extensions will be given for assignments** except for in the event of serious medical or compassionate grounds. A student must follow the procedure for Academic Accommodation for Medical Illness as given in this document. If an academic accommodation is approved, a deferred due date will only be provided by the instructor for maximum of 3 days past the original due date. After this point the weight of the assignment will be placed on the final exam.

Online Quizzes:

Up to two (2) quizzes will be given online via the OWL platform. The tentative quiz schedule is as follows (subject to change):

Quiz	Weight	Date & Time
1	10%	June 7th, 2021 @ 9:30 AM
2	10%	July 12th, 2021 @ 9:30 AM

Quizzes must be started at the given date and time. Failing to complete the quiz during the given times will result in a 0 grade being entered for the quiz.

Quizzes are open book but must be done individually and without the assistance of others. Sharing quiz questions/solutions, completing a quiz for or with another person or otherwise cheating on a quiz will result in a 0% quiz grade for ALL quizzes.

If less than two (2) quizzes are given or a quiz must be cancelled for any reason, the weight of the cancelled quiz will be placed on the final exam. **No makeup quizzes will be given.** The weight of a quiz missed due to document and approved medical or compassionate grounds will be placed on the final exam.

Final Exam:

The final exam will be conducted online during the final exam period and cover all course material including assigned readings, tutorials, lecture slides, and materials covered in assignments and MyLab homework. The format and exact date/time of the final exam will be announced once available.

The final examination in this course will be conducted using the remote proctoring service, such as Proctortrack. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded.** More information about this remote proctoring service is available in the Online Proctoring Guidelines at the following link:

https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf

Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. Information about the technical requirements are available at the following link:

https://www.proctortrack.com/tech-requirements/

Final Exam Policies

- The final exam is to be completed individually, with no assistance or contact with others.
- The Proctortrack software must remain running and recording your screen and webcam while writing the final exam.
- A detailed room scan will be required at the beginning of the exam. It is the student's responsibility to ensure all surfaces and areas in the room are clearly shown during the room scan.
- All students must complete the Proctortrack onboarding process at least one week before writing the final exam.
- Students are responsible for ensuring they are able to write the exam uninterrupted, in a quite location, and with no other person present. All pets should also be kept out of the room while writing the final exam.
- Only one computer, one webcam, one monitor, one keyboard, and one mouse are permitted during the final exam. All other electronic devices are to be stored out of reach and view.
- The only software permitted to be running while writing the exam are a browser (only to access the exam on OWL) and Proctortrack. All other windows, software and browser tabs must remain closed.
- A special/makeup exam will only be offered for significant technical difficulties that are outside of the student's control. A special exam will only be offered if more than 30 minutes of writing time are lost and the technical issues are documented by Proctortrack. Students must inform the course instructor of their technical issues immediately after attempting to write the exam.
- Students are expected to conduct themselves as if writing an in-person exam while the Proctortrack software is recording. This includes dressing appropriately, using professional language, and otherwise abiding by the student code of conduct.

Violation of any exam rule (mentioned above or on the exam it's self), or cheating of any kind will result in a 0% grade for the final exam and the possibility of additional penalties as deemed appropriate by the course instructor, department or university including but not limited to a failing grade being entered for the course.

Tentative Topics and Textbook Reading Schedule:

Tentative topics and reading schedule, dates are when readings will be assigned and should be completed within a week of the assigned date. Additional (not textbook based) readings and videos will be posted each week on OWL to supplement the readings.

Week #	Week of	Topics	Textbook Chapter
1	May 3rd	• Introduction to CS1032 • Introduction to Business Information Systems	**CH1:** The Importance of MIS
2	May 10th	• Business Processes & Decisions • Competitive Strategy	**CH2:** Business Processes and Decision Making **CH3:** Productivity, Innovation, and Strategy
3	May 17th	• Databases • ER Diagrams	**CH5:** Database and Content Management **KE6:** Database Design **KE7:** Using Microsoft Access 2016
4	May 24th	• Information Technology (Hardware & Software • Networks & The Cloud	**CH4:** Hardware and Software **CH6:** The Cloud **KE9:** Network and Cloud Technology
5	May 31st	• XML	
6	June 7th	• Competitive Advantage	**CH7:** Organizations and Information Systems
7	June 14th	• Decision Making	**CH8:** Decision Making and Business Intelligence
8	June 21st	• SQL • Access Reports	
9	June 28th	• eCommerce	**CH9:** Social Networking, Ecommerce, and the Web
10	July 5th	• IS Management • Ethics & Governance • Microsoft Excel	**CH11:** Structure, Governance, and Ethics **KE4:** Introduction to Microsoft Excel 2016
11	July 12th	• IT Project and Acquiring Information Systems	**CH10:** Acquiring Information Systems Through Projects
12	July 19th	• Security & Privacy	**CH12:** Managing Information Security and Privacy
Review and Final Exam Period (July 26-28) - Exact Date TBD			

Email Contact & Online Conduct:

Occasionally email messages may be sent to the entire class or to students individually. Email will be sent to your UWO email address as assigned to you by Information Technology Services (ITS). It is your responsibility to read this email on a frequent and regular basis.

You should note that email at the university and thru other providers have quotas or limits on the amount of space that is dedicated to each account. Unchecked email may accumulate beyond those limits and you may be unable to retrieve important messages from the university. Losing email is not an acceptable excuse for not knowing about the information that was sent.

Email contact with the course instructors is encouraged, and we endeavour to reply to messages within 24 hours between Monday and Friday and within 48 hours on Saturday, Sunday and holidays. However,

messages regarding general questions and questions about course content and assignments should be posted to the OWL forums. Questions that are specific to you (e.g. accommodations, extension requests, etc.) or your assignment's content should be sent to the course instructor.

Please first check the Forums section in OWL to see if the information has already been posted before creating a new post. Please use proper, appropriate and respectful English when sending an email message or posting on the course web site.

NOTE: Email messages must be sent from your university account and **MUST** include:

"CS 1032 S21" in the subject line. (spaces/case do not matter: ex: cs1032S21 works)

NOTE: Do **NOT** use 'Respond To' from any email or announcement message from OWL. You MUST type in the instructor's email in the destination. Please check the destination before sending an email to ensure it is addressed to the instructor and **NOT** to: **postmaster@owl.uwo.ca**

[this is very important – please make sure you understand and follow the standards above.]

NOTE: Please also include a title or topic description of the contents of the email in the subject line and when possible send e-mails from your @uwo.ca e-mail account. The instructor will be unable to respond to questions about your personal grades, assignment, etc. if they are not sent via a known @uwo.ca e-mail account for security and privacy reasons.

SO: If you are sitting there, wondering, 'why hasn't the professor not answered my emails?' – go and check your subject line and ensure you have included the required CS1032 S21.

Accommodation and Accessibility

Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The Academic Accommodation for Students with Disabilities policy can be found at: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic Accommodation_disabilities.pdf

Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self- report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self- reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December, April and Summer final exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf and for the Student Medical Certificate (SMC), see: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar:

https://multiculturalcalendar.com/ecal/index.php?s=c-univwo

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam_schedule.html).

Special Examinations

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See Academic Calendar for details (under Special Examinations).

Support Services:

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on add/drop courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: https://www.uwo.ca/sci/counselling/

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Student Accessibility Services (SAS) at (519) 661-2147 if you have any questions regarding accommodations.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: https://www.uwo.ca/se/digital/.

Learning-skills counsellors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple- choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, http://westernusc.ca/services.

Ethical Conduct:

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Plagiarism

All required assignments, quizzes and exams may be subject to submission for textual and metadata similarity review to plagiarism detection software. All assignments, quizzes and exams submitted for such checking may be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of such services are subject to the licensing agreement with The University of Western Ontario. These services and software may include but are not limited to Turnitin (http://www.turnitin.com), MOSS, SCANEX, and custom plagiarism detection software developed for the course.

Computer-marked multiple-choice quizzes and exams may be subject to remote proctoring software (Proctortrack) and submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating. For details on Proctortrack and remote proctoring see the final exam section.

Students must write their assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar).

All assignments are individual assignments. You may discuss approaches to problems among yourselves; however, the actual details of the work (assignment coding, answers to concept questions, etc.) must be an individual effort. All assignments will be subject to both content and metadata plagiarism analysis.

All quizzes and the final exam are to be written individually, the content and questions not shared and provided rules followed.

Tutors and Outside 'Help' on assignments

Students may receive the help of a tutor on assignments, so long as the tutor only identifies errors or demonstrates sample problems that are **not** part of the assignment. If the content of your assignment is significantly different than if you had not received help, then this is an indication you may have crossed the line into cheating. Again, if you are unsure about how much help is too much, ask your instructor.

The role of tutoring is to help students understand course material. Tutors should not write any part or all of an assignment for the students who hire them. Tutors should not 'advise' or 'suggest' what is to be entered into an assignment or the solutions to any portion of the assignments. Any aid beyond what you would have received directly from the instructor will be considered an academic offense. Having employed the same tutor as another student is not a legitimate defense against an accusation of collusion, should two students hand in assignments judged similar beyond the possibility of coincidence.

Academic dishonesty in assignments includes (but is not limited to):

ax. Unacceptable collaboration

ax. What is unacceptable? There is a difference between discussing assignments and solutions with fellow students and working together on the solutions to the point where the work submitted is clearly not individual work. If in doubt, ask your instructor.

ax. **Copying** of another student's assignment

ax.   **Allowing** another student to copy your work - *this is also an Academic Offense*

ax.   Sharing your assignment with another student electronically or otherwise - *this an Academic Offense*

    for **both** *students.*

ax. Using another student's assignment or work as a "template" or "starting point" for your own work. - *this an **Academic Offense** for **both** students*

ax. Using sites dedicated to sharing assignment solutions or aiding cheating, including but not limited to Course Hero, OneClass, and Chegg.

ax. Using code from an external source (text, instructor, course website) where a student's own code is expected (**if in doubt, ask your instructor**)

Academic dishonesty in quizzes and exams includes (but is not limited to):

ax. Writing a quiz/exam with the aid of another person - *this an **Academic Offense** for **both** students.*

ax. Sharing quiz/exam questions/answers or using ones sent to/obtained by you.

ax. Having another person write a quiz/exam for you.

ax. Failing to follow the specific rules given in the quiz/exam.

ax. Sharing you screen or virtually taking a quiz/exam with others (e.g. being in an online chat of any kind while taking a quiz/exam).

The penalty for academic dishonesty in any course component is receiving 0% for that component **AND** the possibility of additional penalties as deemed appropriate by the course instructor, department or university including but not limited to an additional penalty equal to the course component, or a failing overall grade being entered for the course. Note that receiving 0% on an assignment may make you ineligible for a passing grade due to the 49% requirement given in the Student Evaluation section. Receiving 0% on the final exam, will make you ineligible for a passing grade in this course.

You are responsible for reading and respecting the Computer Science Department's policy on: Scholastic Offences:

   https://www.csd.uwo.ca/undergraduate/current/policies/scholastic_offenses.html

and Rules of Ethical Conduct: https://www.csd.uwo.ca/undergraduate/current/policies/ethical_conduct.html