FLEMING

Course Outline

Course Title:	Scripting Fundamentals
Course Number:	COMP86
Course Hours:	45 hours
Academic School:	School of Business and Information Technology

Approval Date:	2025/6/12
Academic Year:	2025

Program Co-ordinator or Equivalent:	Mamdouh Mina - Mamdouh.Mina@flemingcollege.ca
Dean (or Chair):	Allison MacGregor - Allison.MacGregor@flemingcollege.ca

Course Description

At one point or another, we've all wished we could automate a monotonous or tedious task. With a scripting language, you can do that and more! This course will introduce students to the programming fundamentals that make up scripting languages. Through experiential-learning exercises with an industry-standard scripting language, students will leave with a foundational understanding of these languages in addition to the practices to use them effectively during their careers.

Prerequisites: None.

Corequisites: None.

Course Delivery Type

Face to face.

All course hours are delivered in person at the delivery location specified on the academic timetable.

Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Use procedural programming techniques to write simple scripts that conform with best practice programming style.
2. Utilize variables to evaluate and manipulate data.
3. Employ operators to perform arithmetic, logical, comparison, string manipulation, and regex matching operations.
4. Apply decision and repetition structures to control the flow of script execution.

5. Devise regular expressions to match and extract text.
6. Create scripts that input/output text data via the console, text files, and command line parameters.
7. Incorporate pre-developed library functions, classes, and commands into scripts.
8. Locate appropriate reference material and other sources of help for scripting.
9. Explore and manipulate the Windows file system and execute scripts from the command line.

The labs for this course will be conducted using the Python and PowerShell programming languages within a Windows environment.

1) The course will be delivered live, in-person, with an expectation of attendance. If the Faculty is absent, a recorded lecture will be provided and materials.
2) All submissions will be done online via the learning portals or through other means as deemed acceptable by Faculty.
3) Faculty will converse with students via email, D2L announcements or in class. It the student's responsibility to reach out to the faculty with any questions as soon as possible.

Learning Resources

- External Storage Device - USB

Costs for learning resources can be found on the Campus Store website, using the links below, or by visiting the Campus Store location at your campus.

- Sutherland: https://www.bkstr.com/sfleming-sutherlandstore/home
- Frost: https://www.bkstr.com/sfleming-froststore/home

Assessment Summary

Assessment Task	Percentage
Assignments	60%
Tests	40%

Student Success: Policies and Procedures

Mutually, faculty and learners will support and adhere to college Academic Regulations, and Student Rights and Responsibilities. The following policies and guidelines have been developed to support the learning process.

Please click on the link for information about:

- Academic Integrity (2-201A)
  (https://department.flemingcollege.ca/hr/attachment/7750/download)
- Accessibility for Persons with Disabilities (3-341)
  (https://department.flemingcollege.ca/hr/attachment/5619/download)

- [Grading and Academic Standing (2-201C)](https://department.flemingcollege.ca/hr/attachment/7752/download)

  (https://department.flemingcollege.ca/hr/attachment/7752/download)
- [Guidelines for Professional Practice: Students and Faculty](https://flemingcollege.ca/PDF/guidelines-for-professional-practice-students-faculty.pdf)

  (https://flemingcollege.ca/PDF/guidelines-for-professional-practice-students-faculty.pdf)
- [Student Rights and Responsibilities (5-506)](https://department.flemingcollege.ca/hr/attachment/269/download)

  (https://department.flemingcollege.ca/hr/attachment/269/download)

If you will need academic accommodations (for example if you have a learning disability, mental health condition such as anxiety or depression or if you had an IEP in high school), please contact the [Accessible Education Services (AES)](https://department.flemingcollege.ca/aes/) department (https://department.flemingcollege.ca/aes/) to meet with a counsellor.

Alternate accessible formats of learning resources and materials will be provided, on request.

Program Standards

The **Ministry of Colleges and Universities** oversees the development and the review of standards for programs of instruction. The **Ministry of Labour Training and Skills Development** oversees the development and the review of standards for programs of instruction for Apprenticeship training in the province of Ontario. Each college is required to ensure that its programs and program delivery are consistent with these standards, and must assist students to achieve these essential outcomes.

This course contributes to Program Standards as defined by the [Ministry of Colleges and Universities](#) (MCU). Program standards apply to all similar programs of instruction offered by colleges across the province. Each program standard for a postsecondary program includes the following elements:

- **Vocational standards** (the vocationally specific learning outcomes which apply to the program of instruction in question);
- **Essential employability skills** (the essential employability skills learning outcomes which apply to all programs of instruction); and
- **General education requirement** (the requirement for general education in postsecondary programs of instruction that contribute to the development of citizens who are conscious of the diversity, complexity and richness of the human experience; and, the society in which they live and work).

Collectively, these elements outline the essential skills and knowledge that a student must reliably demonstrate in order to graduate from the program. For further information on the standards for your program, follow the MCU link (www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/).

Detail Plan

Term: 2025 Fall

Program Co-ordinator or Equivalent: Mamdouh Mina - Mamdouh.Mina@flemingcollege.ca

Dean (or Chair):   Allison MacGregor - Allison.MacGregor@flemingcollege.ca

Learning Plan

Wks/Hrs Units	Topics, Resources, Learning, Activities	Learning Outcomes	Assessment
Week 1	Course Introduction		
Week 2	Module 1 - Introduction to PowerShell	2,7,8,9	Assignment 1
Week 3	Module 2 - PowerShell Pipelines and Scripts	1,2,3,6,7,9	Assignment 2
Week 4	Module 3 - PowerShell Data Processing	1,2,3,6,7,8,9	Assignment 3
Week 5	Module 4 - PowerShell Regular Expression	1,2,3,4,5,6,7,8,9	Assignment 4
Week 6	PowerShell		PowerShell Test
Week 7	Module 5 - Introduction to Python	1,2,6,7,8,9	Assignment 5
Week 8	Independent learning week		
Week 9	Module 6 - Python Operators and User Input	1,2,3,6,7,8,9	Assignment 6
Week 10	Module 7 - Python Functions	1,2,3,6,7,8,9	Assignment 7
Week 11	Module 8 - Python Decisions	1,2,3,4,6,7,8,9	Assignment 8
Week 12	Module 9 - Python Sequence Types	1,2,3,4,6,7,8,9	Assignment 9
Week 13	Good Friday holiday		
Week 14	Module 10 - Python Repetition	1,2,3,4,6,7,8,9	Assignment 10
Week 15	Python	1,2,3,4,6,7,8,9	Python Test

Assessment Requirements

Assessment Task	Date/Weeks	Course Learning Outcome	Percentage
PowerShell Assignments (4 x 6% each)	Weeks 2 - 5	1,2,3,4,5,6,7,8,9	24%
PowerShell Test (15%)	Week 6		15%
Python Assignments (6 x 6% each)	Weeks 7, 9-12, 14	1,2,3,4,6,7,8,9	36%
Python Test (25%)	Week 15		25%

The professor, faculty team in consultation with the program co-ordinators and academic chair reserves the right to modify the course content, sequence based on industry trends interests and time constraints in this course.

Exact dates for assessments may vary by class section. Refer to course schedule in D2L for details.

Artificial Intelligence (AI) Statement

NO USE. Use of generative AI tools (like ChatGPT) is not permitted in this course.

It is the responsibility of students to maintain a history of records and supporting documentation to demonstrate their efforts in all academic submissions, even if submission of these is not part of the final academic deliverable.

Turnitin Statement

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com in support of academic integrity. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

If students choose to opt out of using the software, they must inform their faculty member at the time of the assignment, of their refusal and meet with the faculty to discuss their options. For further information on the use of Turnitin, please refer to the [Operating Procedure 2-201F](https://department.flemingcollege.ca/hr/attachment/10233/download) (https://department.flemingcollege.ca/hr/attachment/10233/download)

Respondus Monitor Statement

This course will use Respondus Monitor as a remote proctoring tool to support the administration of electronic examinations and assessments. Fleming College has an institutional license to use Respondus Monitor, a cloud-based service and software that captures video, audio, and other data during student assessment sessions for use in monitoring students. This data is accessible to, and may be used by, authorized individuals at the college to administer student assessments and manage the academic integrity of such assessments. The Student Terms of Use for Respondus Monitor must be agreed to by users (e.g. students) prior to each use of the Respondus Monitor, available at: https://web.respondus.com/tou-monitor-student/

By accessing and using Respondus Monitor, you agree to the collection, use, disclosure and retention of your personal information (including personal images) by Respondus Inc. in accordance with its Privacy Policy, available at: https://web.respondus.com/privacy-policy/

If you have questions about the collection of your personal information, please contact the Privacy and Policy Officer at freedomofinformation@flemingcollege.ca, or visit Fleming College's [Privacy Statement](https://flemingcollege.ca/privacy-statement) (https://flemingcollege.ca/privacy-statement) for more information.

If students choose to opt out of using Respondus Monitor, they must inform their faculty member prior to the scheduled assessment, of their refusal and meet with the faculty to discuss their options.

Exemption Contact

For CSI, Contact Mamdouh Mina, mamdouh.mina@flemingcollege.ca

For CTN/CTY, Contact Mamdouh Mina, mamdouh.mina@flemingcollege.ca

Prior Learning and Assessment and Recognition (PLAR)

PLAR uses tools to help learners reflect on, identify, articulate, and demonstrate past learning which has been acquired through study, work and other life experiences and which is not recognized through formal transfer of credit mechanisms. PLAR options include authentic assessment activities designed by faculty that may include challenge exams, portfolio presentations, interviews, and written assignments. Learners may also be encouraged and supported to design an individual documentation package that would meet the learning requirements of the course. Any student who wishes to have any prior learning acquired through life and work experience assessed, so as to translate it into a college credit, may initiate the process by applying through the Registrar's office. For more information please click on the following link: http://flemingcollege.ca/admissions/prior-learning-assessment-and-recognition

Course Specific Policies and Procedures

It is the responsibility of the student to retain this course outline for future reference. Course outlines may be required to support applications for advanced standing and credit transfer to other educational institutions, portfolio development, PLAR and accreditation with professional associations.

Synchronous sessions may be recorded. As a result, your image, voice, name, personal views and opinions, and course work may be collected under legal authority of section 2 of the Ontario Colleges of Applied Arts and Technology Act, 2002. This information will be used for the purpose of supporting student learning. Any questions about this collection can be directed to the Privacy and Policy Officer at freedomofinformation@flemingcollege.ca or by mail to 599 Brealey Drive, Peterborough, ON K9J 7B1.

Academic Responsibilities and Policies

Effective Communication and Resource Management

1. **Email Communication**: Students are expected to regularly check their Fleming email accounts to receive communications from instructors, the College and their supporting software.

2. **Online Resource Access**:

    1. **Desire2Learn** is used for instructor communication, managing course materials, quizzes and final grades.

    2. **Gradescope** is used for submitting assignments.

    3. **OneDrive** is a file storage service provided by the college where Students should save their work.

3. **Computer Utilization**: Students have access to a laboratory computer. These computers are a shared resource so they are not expected to be in a predictable state. Files or software may be removed or added from these computers at any time, so Student work should be saved to their personal College OneDrive. Students may use personal devices but they are responsible for their own support. Technology difficulties for personal equipment and services will not be acceptable for any assignment or test extensions.

Academic Responsibilities and Student Engagement

1. **Attendance and Participation**: Regular attendance and active participation in classes are crucial for maximizing learning outcomes and successfully completing this course.

2. **Final Grade Determination**: Final grades are based on successful completion of assignments and quizzes, and test marks as outlined in the course syllabus. **There will be no opportunities** for marks beyond those specified in the course outline.

3. **Responsibility for Arrangements**: It is the student's responsibility to initiate discussions with the instructor regarding any special arrangements for missed work. Success in this course is a shared goal between the student and the instructor.

4. **Emergencies impacting Academic Studies:** Any Student experiencing a genuine emergency must contact the appropriate Student Services resource and advise your professor. **Exceptions to any policy can be made to provide opportunity for academic success in the event of an emergency.**

Assessment (Test and Quiz) Policy

1. **Quiz and Test Completion**: This course requires **50% grade or higher** on **8 or more quizzes and 2 tests** to pass.

2. **Makeup Policy for Missed Work**: Missed tests and quizzes will result in a zero grade unless **prior arrangements** are made with the instructor.

Assignment Policy

1. **Quiz and Test Completion**: This course requires **10 assignments** to be marked as complete in Gradescope per the assignment instructions. Assignments are automatically graded upon submission. Students are encouraged to review feedback or errors, adjust their work and resubmit until the Gradescope output is complete according to the assignment instructions. Students are allowed unlimited resubmissions until the deadline.

2. **Submission Deadlines**: Assignments must be submitted on or before their assigned dates. Exceptions require specific arrangements with the professor, more than 24 hours prior to the due date. No extension requests of any kind will be considered beyond the next assignment or test due date. (Example, Assignment 2 extensions will not be considered once Assignment 3 due date has passed).

3. **Extension Requests:** An extension for an assignment may be requested **more than 24 hours** before an assignment deadline.

4. **Penalty for Late Submission**: Assignments not submitted on the due date will receive a grade of zero (0), unless an extension has been both requested and granted prior to the deadline.

Academic Integrity

1. **Policy on Dishonesty**: Fleming College strictly prohibits academic dishonesty, including but not limited to plagiarism, cheating, impersonation, falsification of data, unauthorized acquisition of examination materials,

misrepresentation, and alteration of official documents.

2. **Reference to Academic Regulations**: For detailed information on academic integrity and related policies, refer to the Academic Regulations Policy.

This document outlines the academic responsibilities and policies essential for maintaining a productive and honest learning environment at Fleming College. Adherence to these guidelines is expected of all students to ensure academic success and integrity.