Course Outline

TECHNICAL SUPPORT FOR USERS

Course Title

Network and Protocols

Program Title

420-B03-TV	2-1-3	2
Course Code	Weighting	Credits

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Teacher	Phone number \ Email

Elliot Gimple

Program Coordinator

2023	Winter
School Year	Semester

		SCHEDULE OF LEARNING ACTIVITIES AND EVALUATIONS		
Week of teaching	Date	Learning activities	Evaluations[1] and marks awarded	Work to be done by the student
Week 1	6-Fev	Introduction		
Week 2	13-Fev	Internetworking Basics	Lab	Presentation
Week 3	20-Fev	TCP/IP Intro	Lab	
Week 4	27-Fev	Subnetting	Lab	Presentation
Week 5	13-Mar	Cisco IOS Introduction	Lab	Presentation
Week 6	20-Mar	Cisco Router	Lab	Presentation
Week 7	27-Mar	Routing Protocols	Lab	Homework
Week 8	03-Avr	RIP v1/v2	Lab	Homework
Week 9	17-Avr	EIGRP	Lab	Homework
Week 10	25-Avr	DNS	LAB	Homework
Week 11	01-Mai	NAT	Lab	Homework
Week 12	06-Mai	Switch Introduction	Quiz	Homework
Week 13	15-Mai	Network Lab with Python	Labs	Homework
Week 14	29-Mai	Network Lab with Python	Labs	Homework
Week 15	05-jun	Network Lab: As a Project	Labs	Homework

[1] Formative and summative

<table>
<tr><td rowspan="5" align="center">GENERAL COURSE DESCRIPTION</td><td>▶   How and where the course fits into the student's program</td></tr>
<tr><td>▶   Targeted competency or competencies in the course</td></tr>
<tr><td>▶   Links with other courses</td></tr>
<tr><td>▶   Prerequisites for this course, if any</td></tr>
<tr><td>▶   Relevance of this course for the student</td></tr>
</table>

➢ **How and where the course fits into the student's program**

This course focuses on the support that the programming technician Internet gives to users, from the analysis of the current case to the follow-up after the intervention provided. These concepts will be supplemented by fictitious cases and simulations of customer support-indifferent environments and with various requests ranging from the direct use of a computer to requests for specialized functions.

At the end of the course, the student will be able:

- To specify the user's requests,
- To make an appropriate choice of the support to be provided,
- To assist users in the use of a computer or software and
- To verify user satisfaction and the degree of adequacy between the intervention and the need.

➢ **Targeted competency or competencies in the course**

- 00SG   Provide IT support to users   Complete achievement

➢ **Elements of the Competency**

- Specify the need.
- Assist users with the use of computers and software.
- Prepare user support documents.
- Follow up on the support provided.

➢ **Links with other courses**

The competency 00SG is also obtained in the following course:

- 420-106-TV   Operating Systems

➢ **Prerequisites for this course, if any**

- 420-104-TV   Communication and teamwork in computer science

➢ **Relevance of this course for the student**
- Accurate interpretation of the client's needs and identification of the level of priority
- Observance of the client-based approach
- Accurate analysis of the incident, problem or request and appropriate consultation of the knowledge base

Validate a client's request. This element is centered on the active listening skill and the client-based approach, as well as the ability to synthetize a good amount of information in few key phrases, interpreting the client's needs and identifying the level of priority, and differentiating – request, incident and problem categories. It is here that all your real-life experience on IT will help creating analogies to ensure you understand the issue and propose an effective solution. You will demonstrate understanding and application of effective analytical and communication skills with users and clients.

Help a client solve a technical problem. This element incorporates the precepts of incident management, where the candidate will be asked to use the appropriate diagnostic method to find the root cause of an incident or problem, find a solution and select the best tools to do it. You can use any method to find the root cause, but we provide you with three best practices available in the market today. Lastly, you will conduct a postmortem investigation and create a report. The candidate must demonstrate understanding and application of effective troubleshooting and technical skills in resolving incidents and / or problems.

Provide technical training to a user. As described on the cluster description, provide training is to be able to translate technical terms to a user-friendly language and help your client not only solve an immediate problem but also make them a multiplier of the knowledge. Sometimes, it requires the documents production aligned with user needs and their level of knowledge as well as recording of the action taken in the knowledge base. Also, it will be necessary to test the outcome and make sure the client's satisfaction level is above expectation. The candidate must demonstrate understanding and application of effective communication and tutoring skills, documentation production and knowledge base maintenance.

STAGES OF LEARNING	► For each stage of learning, specify the
	■ Learning objectives
	■ Essential course contents
	■ Teaching and learning strategies
	■ Relative length of the stage

Weeks 1-2
Learning Objectives
- Introduction
- Computer Components

Essential course contents
- Introduction

Teaching and learning strategies
- Presentation

Week 3-4
Learning Objectives
- Hardware
- Team presentation Operating System

Essential course contents
- Introduction to Hardware and Operating System for learn the basic of troubleshooting

Teaching and learning strategies
- The class will be divided in group for make these presentations.

Week 5-6
Learning Objectives
- Team presentation Networking
- Team Presentation: Virtualization Cloud

Teaching and learning strategies
- The class will be divided in group for make these presentations.

Week 7-8
Learning Objectives
- Interpretation of the client's needs
- Level of priority

Teaching and learning strategies
- Presentations and class activities

Week 9-10
Learning Objectives
- Client-based approach
- Service request, incident and problem

Teaching and learning strategies
- Presentations and class activities

Week 11-12
Learning Objectives
- Client Request and Service Level Agreement (SLA)
- How to Talk to Your Customers

Teaching and learning strategies
- Presentations and class activities

Week 13-14
Learning Objectives
- Troubleshoot labs
- JIRA Examples

Teaching and learning strategies
- Presentations and class activities

Week 15
Learning Objectives
- Real-time Troubleshooting

Teaching and learning strategies
- Presentations and class activities

<table>
<tr><td colspan="2"></td><td>▶   Summative evaluations</td></tr>
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EVALUATION OF ACQUIRED SKILLS AND KNOWLEDGE	▶ **Summative evaluations** ■ **Nature and description of the evaluations** ■ **Date** ■ **Marks awarded** ■ **Evaluation criteria** ■ **Time required by the student** ■ **How the final evaluation relates to learning target**

➢ **The Nature and Description of the Evaluations:**

Summative evaluations	Week	Weighting	Duration	Evaluation criteria
Team Presentation	4	15	1h	
Team Presentation	5	15	1h	
Team Presentation	6	15	1h	
Quiz per Week		20	30m	
Final Evaluation		65	1h	Labs and Quiz

➢ **How does the final evaluation relate to the learning target?**

Competency and Task	Learning target evaluated
Realtime Trobleshooting	USING ALL THE LEARNING SUBJECTS

BIBLIOGRAPHY

▪ **Required readings**
▪ **Recommended readings**

▪ **Required readings**

CompTIA A+ Certification All-in-One Exam Guide, Tenth Edition (Exams 220-1001 & 220-1002)

▪ **Recommended readings**

https://en.wikipedia.org/wiki/Technical_support#Tier_1
https://www.sysaid.com/blog/entry/5-tips-for-putting-customers-first-on-the-it-service-desk
https://www.servicedeskinstitute.com/wp-content/uploads/2018/12/Measuring-and-Making-the-Most-of-Metrics-2018.pdf
https://www.zendesk.com/blog/top-10-help-desk-metrics/
https://www.talkdesk.com/blog/sample-call-center-call-scoring-evaluation-form-items/
https://www.riohondo.edu/its/helpdesk/writing-a-good-helpdesk-ticket/

▪ **Online resources**

○ Bibliothèque et archives nationales du Québec, http://www.banq.qc.ca
○ Openstax, https://openstax.org/

Brief IPESA[2] description:

The student responsibilities are the following:

- To attend classes.
- To read the course outline and refer to it throughout the course.
- To invest the required amount of personal study and preparation time required for homework, assignments and learning activities.
- To use the resources offered by the College to counter any learning difficulties.
- To be present at all evaluations.

The measurement of student achievement

5.4 When some assignments required of students are to be done as a team, the summative evaluation of each student will always be based on individual performance. It is the individual student's mastery of the objectives (competencies) that must be demonstrated, not that of a group of students. When students are given a team assignment, the individual student's mastery of the course's objectives must be established. If the ability to work as a member of a team figures as one of these objectives, this dimension will be awarded a separate grade in order to certify the ability of each student to work as a team member. In this respect, students will be required to sign a team contract stating the requirements and procedures that will ensure that program objectives are attained on an individual basis (see appendix).

5.5 Every course ends with a summative evaluation activity that counts for at least 40% of the final grade. This percentage can be distributed on more than one evaluation in the last stage if these serve to testify to the progressive achievement of the course's final learning target.

Attendance at final exams and submission of class assignments

7.1 Attendance at final exams (summative evaluations) is mandatory. A student who is absent without serious justification will automatically receive a grade of zero (0). The student must meet with the teacher in order to motivate his absence with proper documentation (i.e. doctor's note). Only serious reasons (such as a death in the family, an accident or illness) will be accepted as valid by the College. In such cases, the teacher will propose a make-up evaluation. Students must arrive for an exam at the specified time and place. If a student is late, the student may be refused entrance to the room if another student has already handed in his exam paper and left.

7.2 All assignments will be submitted to the teacher on the specified date and time. Students who hand in work late will be penalized from 5% to 10% of their grade for each day the assignment is late. This indication will be specified in the course outline. Students are responsible for keeping a copy of their assignments.

7.3 Assignments that are handed in after the teacher has returned corrected assignments to the rest of the students will not be accepted. The decision to propose another assignment and grant an extension will be at the teacher's discretion.

7.4 Written assignments will be presented legibly in ink or in typed format. The teacher may require that students hand in their assignments in typed format for reasons specified in the course outline.

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[2] **For more details, please see the official policy at** www.tav.ca **under "Policies and regulations"**

<u>Evaluation of the English language</u>
9.2 Teachers will deduct marks of up to 10% of the grade for English language mistakes. The College or its representatives (advisors) will specify a reasonable negative marking scheme for errors. The negative marking scheme will be part of the course outline. In courses where language accuracy is part of the learning objectives, the maximum number of points deducted for mistakes may exceed 10% but will not represent more than 20% of the grade awarded for a specific assignment or exam.

<u>Class attendance</u>
10.3 Teachers cannot modify a final grade due to a student's poor attendance. In other words, poor attendance in itself cannot be used to alter the value of the final grade in view of the fact that the final grade reflects the student's level of attainment of the course objectives. Since the final grade is based on the attainment of objectives, it must be determined through the use of the evaluation tools presented in the teacher's course plan: for example, summative evaluations including quizzes, term papers, mid-term exams, final exams, class presentations, etc.

<u>Academic Fraud, Plagiarism & Cheating</u>
12.1 The notion of fraud applies to all plagiarism or cheating during an activity leading to a summative evaluation.
12.2 All plagiarism, attempt to plagiarize or collaboration to plagiarize will lead to a grade of zero (0) for an exam or assignment. After having informed the student, the teacher will prepare a written report and submit it to College authorities (advisors) who are responsible for filing the report. If the student plagiarizes a second time, he will receive a grade of zero (0) for the course or courses concerned. The teacher will submit a written report to the authorities who will file the report in the student's record.
12.3 Students are deemed to plagiarize or cheat when they:
○   Use unauthorized notes;
○   Copy assignments or answers belonging to another person;
○   Provide answers to other students in an exam room;
○   Do not provide references including Internet sources;
○   Falsify documents used for evaluation purposes.
12.4 To ensure the validity of an evaluation, the teacher supervising an exam will be required to take the necessary measures to avoid any form of plagiarism and/or cheating.
12.5 Any student who believes himself unjustly accused of plagiarism and/or cheating will have the right to recourse in accordance with the grievance mechanisms set forth in article 17.0 of the IPESA.