TECHNOLOGICAL AXIS: Information and Communication

PROFESSIONAL EDUCATION: Instrumental

COURSE PLAN: Connecting Futures: Discovering IT

1. Objectives

1.1 General objective

Present to participants the diverse promising IT professions, exploring their roles, remunerations and market perspectives, in order to awaken the interest and potential of young people for promising careers in this constantly expanding sector.

1.2. Specific objectives

1) **Awakening Interest in Informatics:**
- Present the various areas of information technology in an attractive and dynamic way, using accessible language and practical examples.
- Demonstrate the diverse applications of computing in the real world, highlighting its positive impact on society.
- Explore the skills and characteristics needed to succeed in different professions in the area.

2) **Expand Knowledge about Promising Professions:**
- Describe in detail the main IT professions, focusing on roles, responsibilities and market perspectives.
- Present successful professional profiles in each area, highlighting their trajectories and achievements.

3) **Develop Key Skills for Success:**
- Promote the development of basic technical skills in computer science, such as the use of digital tools, web browsing and programming logic.
- Stimulate the development of socio-emotional skills essential to the labor market, such as communication, teamwork, creativity and problem solving.
- Offer workshops and practical activities to enhance the skills of young people and prepare them for the challenges of the profession.

4) **Guide in Building Career Plans:**
- Assist young people in identifying their computer interests, skills and aptitudes.
- Provide information on technical courses, degrees and other IT training opportunities.
- Offer individualized mentoring to assist young people in defining their professional goals and building a personalized career plan.

5) **At the end of the course, participants will be able to:**
- Identify key areas of computing and their applications in the real world.
- Use basic digital tools and develop essential technical skills for the area.

- Define your professional goals and build a personalized career plan for the area of computer science.

2. Prerequisites

- Be allocated in CRIAAD/DEGASE.

3. Menenta

This course will address the fundamentals of computing, including the structure of a computer and an overview of IT careers, with a focus on the role and salary of each profession. Students will be introduced to basic programming and graphic design, with practices in a simple programming language and graphic design tools. The course will also cover hardware maintenance, including computer assembly and disassembly practices, as well as computer networking concepts and simple network configuration. Information security will be discussed, with an emphasis on best practices for online security. The course will be completed with a review of the topics covered and preparation for the final assessment.

4. Curriculum Structure

4.1. Curriculum Matrix

CURRICULAR COMPONENTS		COMPONENT TIME LOAD		TIME LOAD		
		THEORETIC (H/A)	PRACTICAL (H/A)	TOTAL (H/A)	WEEKLY (H/A)	DURATION
Week 1	Introduction to Computing	2.	2.	40	4 h/a	10 Weeks
Week 2	IT Professions	2.	2.			
Week 3-4	Basic Programming	4.	4.			
Week 5	Graphic Design	2.	2.			
Week 6	Computer Maintenance	2.	2.			
Week 7	Computer Networks	2.	2.			
Week 8	Information Security	2.	2.			
Week 9	Website Development	2.	2.			
Week 10	Review and Preparation for Assessment	2.	2.			
TOTAL		**20**	**20**	**40**	**4 h/a**	**10 Weeks**

4.2. Curriculum Organization

The Course **"Connecting Futures: Discovering Informatics"**, with a total duration of 40 (forty) hours/class, is offered 1 (one) time per week with a weekly workload of 4 (four) hours/class in person. The course is ten (10) weeks long, with one lesson per week.

5. Programmatic Content

5.1. Presential Curriculum Components

5.1.1. Content I

Introduction to Computing (Week 1)

- Basic computer concepts with simple language and everyday examples
- Introduction to Computer Components with Practical Demonstrations

IT Professions (Week 2)

- Overview of IT professions with videos and testimonials from IT professionals
- Discussion on the role and remuneration of each profession with concrete examples

Basic Schedule (Weeks 3 and 4)

- Introduction to Programming Logic with Playful Activities and Gaming
- Practice with a simple programming language (e.g. Python) with practical exercises and simple projects

Graphic Design (Week 5)

- Fundamentals of graphic design with visual examples and practical activities
- Practice with graphic design tools by creating simple projects

Computer Maintenance (Week 6)

- Introduction to hardware maintenance with hands-on demonstrations
- Practice of assembling and disassembling a computer with supervision and guidance

Computer Networks (Week 7)

- Networking Basics with Everyday Examples
- Setting up a simple network with practical activities

Information Security (Week 8)

- Importance of information security with real-world examples
- Best practices for online security with hands-on activities

Website Development (Week 9)

- Introduction to HTML and CSS with Practical Activities
- Creation of a simple website as a final project

Review and Preparation for Assessment (Week 10)

- Review of topics covered with review activities and clarification of questions
- Preparation for final assessment with tips and study strategies

Final Assessment

- Written assessment covering all course topics with support and guidance for students

5. Number of Students per class:

Maximum - 10;
Minimum - 1.

7. Evaluation

The evaluation should be continuous, behavioral and qualitative, and the recording of learning verification is used.

A student who achieves a final average of 6.0 (six) or above, obtained through the average of the scores of the assessments, will be considered fit, which should express the mastery of the knowledge and skills required by the curricular components.

7.1. Frequency:

Minimum attendance of 75% of the classes planned for the course. The shortage is computed by considering each hour/class.

7.2 - Attitudes and values (Formative or Qualitative Assessment):

Formative or qualitative assessment is individual and selective, structured through the following indicators:
Personal presentation;
Attendance; Punctuality;
Respect for teacher and colleagues; Teamwork;
Ability to express and seize content.

7.3. Indicator:

Class Journal Annotations.

8. Certificate

At the end of the course, the student will receive a **Course Certificate: Connecting Futures: Discovering Computing**

9. Bibliographic References

GONÇALVES, M. G. R. C. **The Socioeducational Measures And The Resocialization Of The Minor Offender.** Annapolis: UniEVANGELICA, 2018.

SILVA, T. C. **Minor offender: the reintegration of the minor into society**. Goiânia-GO: PUC, 2023.

SOUZA, J. A. **The Use of Educational Software in the Education of Minor Offenders.** Step Background: UFRGS, 2015.