Fatec
Jundiaí
Deputado Ary Fossen

Information Technology Management

Systems Analysis and Development

Events

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Embedded Systems

Logistics

Enrivonmental Management

Meet the Technology College of Jundiaí

THE PAULA SOUZA CENTER

The Paula Souza Center (PSC) is an autarchy of the Government of São Paulo, bound to the Secretariat of Economic Development, Science, Technology and Innovation, a body of the State Government whose objective is to intensify the sustainable development of the State, foster the competitive advantages of companies and São Paulo entrepreneurs, to incorporate technology into the region products and strengthen the conditions for attracting investments in the state. The PSC's profile is to meet the needs of labor qualification in a situated way, according to the vocations of the facilities areas. The Paula Souza Center began its activities in 1969 to meet the needs of professional formation in the industry of São Paulo. Today, the Center manages 290 thousand students in technical courses of high school and college degree in more than 300 cities. There are 71 Technology Colleges (Fatecs), with about 82 thousand students enrolled in 73 technology college courses. The Fatecs also offer postgraduate courses, technological updating and extension courses. In December 2011 it gained autonomy of University Center.

THE TECHNOLOGY COLLEGE COURSES

They are a modality of college course, which concentrates in a specific area of knowledge and is target to the labor market. They are regulated by the Law 9394/2006, the Law 11741/2008 and the Federal Decree 2208/97. Features:

- College degree;
- Short-term college courses (< 4 years);
- Specific formation in an area;
- Rapid insertion in the labor market;
- Commitment to the productive system, assistance to industrial activities and services and flexible syllabus;
- Vision of technological evolution;
- Formation focused on the area of operation;
- Basis on the accomplishment of real projects, case studies and laboratories;
- Reproduction of the conditions of the professional atmosphere.

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All the Technology Courses offered by the Paula Souza Center fully meet (and exceed) the requirements of MEC, being aligned with the guidelines of the National Catalogue of Technology College Courses. MEC requires that the Technology College Courses fulfill a minimum credit hour of 1600 hours. The courses at the Paula Souza Center have a credit hour of 2800 hours (6 semesters or 3 years) with a total of 2400 hours of teaching activity, 240 hours of compulsory Curricular Internship and 160 hours of Final Paper. This credit hour allows unrestricted access to any postgraduate course (stricto and lato sensu).

THE TECHNOLOGIST PROFILE

According to the Ministry of Education and Culture (MEC), the technologist is a professional able to develop, in a full and innovative way, the activities in a certain professional area and capable to plan, develop, use or adapt technologies with a critical understanding of the implications resulting thereof and their relations with the productive process, the human being, the environment and the society.

FATEC JUNDIAÍ

Inaugurated in 2002, hosted in the antique "Fepasa Complex", Fatec offers 6 technology college courses:

- Systems Analysis and Development – (an afternoon/an evening course);
- Information Technology Management - (an evening course);
- Events - (a morning course);
- Environmental Management - (an afternoon/an evening course);
- Logistics - (a morning and an evening course);
- Embedded Systems – (a morning/an evening course).
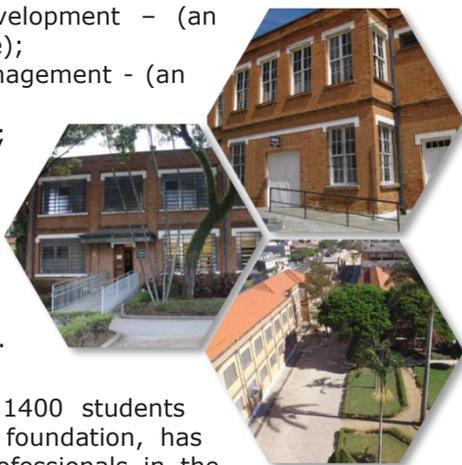
Currently, it has approximately 1400 students regularly enrolled and, since its foundation, has already put more than 2,200 professionals in the market. All courses are recognized by the State Board of Education, having 4 courses evaluated with marks of excellence by the Ministry of Education.

SYSTEMS ANALYSIS AND DEVELOPMENT

The College Course of Technology in Systems Analysis and Development graduates professionals with competence to design, implement and coordinate infrastructures of information technology, attending to the necessity of changes provoked by the technological innovations in companies.

GENERAL OBJECTIVES OF THE COURSE

Since the information systems are widespread in all organizational areas, the professional of Information Systems has great scope as an agent and promoter of changes, directing companies to properly use information technology when solving their problems.

It is a work that includes multidisciplinary aspects, integrating diverse areas of knowledge, such as computer science, management sciences and behavioral sciences.

For this purpose, the objectives of the course are to develop professionals capable of: analyzing problems and creating solutions for organizations through the modeling and implementation of information systems; with interdisciplinary vision, that seek continuous improvement, integrating knowledge for the development of computational solutions appropriate to the organizations; with solid technical and scientific training for the development and management of information systems projects; capable of interacting with the socio-technological problems of the community and of organizations; with a global and humanistic vision based on ethics; capable of carrying out scientific research, aiming at the development of science and technology.

PROFESSIONAL PROFILE

The Systems Analysis and Development Technologist analyzes, designs, documents, specifies, tests, implements and maintains computer information systems. This professional also works with computer tools, computer equipment and project methodology in the production of systems. Logical reasoning, the use of programming languages and project construction methodologies, concern with the quality, usability, robustness, integrity and security of computer programs are fundamental to the performance of this professional.
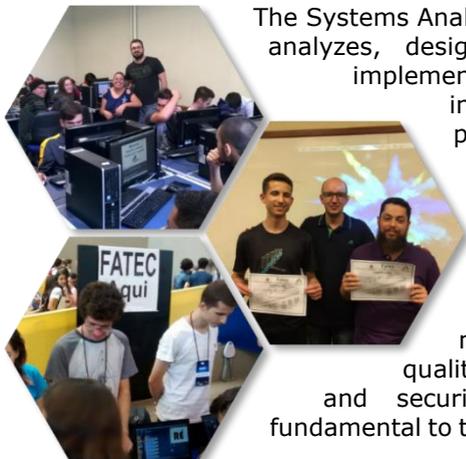
AREAS OF EXPERTISE

The professional of Systems Analysis and Development can work in consulting and technology consulting and systems development companies, as well as in the various sectors of the economy: industry, commerce, service provision, financial institutions, public agencies or as an entrepreneur in information technology.

GENERAL COMPETENCES OF THE GRADUATE

The general professional competencies of the technologist in Systems Analysis and Development include:

• design and implement systems according to institutional needs;

• coordinate information technology infrastructures, develop policies and guide-lines based on needs analysis;

• consult in Information Systems, evaluate and select software and hardware resources;

• work in research, teaching or software development centers;

• start his/her own computer business.

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EVENTS

The Course of Technology in Events, by the National Catalogue of the College Courses of Technology, belongs to the Hospitality and Leisure axis.

GENERAL OBJECTIVES OF THE COURSE

It is a course in the area of management, to train the professional of the sector of events, with great stimulus to the entrepreneurship and innovation. Therefore, the objectives of the course are: to provide the student with a stimulating environment that offers challenges, incentives and discoveries, through the practical feasibility of activities, since the first semesters of training; to train managers of the most varied types of events, with professional competence and commitment. The training focuses on the managerial aspects of the event market, technology, methods, tools and management processes.

PROFESSIONAL PROFILE

The Technologist in Events acts in institutions of events, tourism and lodging, providing specialized services in the planning, organization and execution of business, social, sporting, cultural, scientific, artistic, leisure and other events. It must have mastery of the functional codes and processes of dynamic integration of all agents integrated with tourism and the various cultural, economic and social aspects of the region in which it operates, with a critical awareness of ethical, environmental and legal guidelines.

AREAS OF EXPERTISE

This technologist can act in public agencies, with event planning, companies and agencies specializing in events, private companies that organize their own events and plan actions to publicize products and services. He/she can also work in advertising and tourism agencies, hotels, malls or even as a freelancer.

GENERAL COMPETENCES OF THE GRADUATE

The general professional skills of the Event Technologist include:

- identify and perform critical evaluation of structures, functions, products, supply chain and strategic events operations;
- evaluate dynamic contexts and eventually uncertain environments in which organizations operate events;
- understand the consumers of events, their needs, social behaviors and interactions, consumer cultures and relationships between consumers and event service providers;
- assess the interrelationship between events and communities, cultures, economies and environments in which they occur, as well as evaluating appropriate planning processes;
- develop and guide proposals for texts and audiovisual materials on events;
- understand the various domains associated with events;
- understand the issues and principles of sustainability, ethics and social responsibility in the context of events;
- assess the importance of social, economic and cultural diversity in the management of events;
- generate creative ideas, concepts and events projects, as well as proposals and solutions that meet different needs of clients and business.

ENVIRONMENTAL MANAGEMENT

The Environmental Management Technology Course, by the National Catalogue of the College Courses of Technology, belongs to the Environment and Health axis.

GENERAL COURSE OBJECTIVES

To train technologists specialized in environmental issues, capable of acting as agents that anchor production and collaborate in the promotion and environmental protection, with the following competences: incorporation of values of social responsibility and professional ethics; ability to understand the social, political, economic and cultural environment in which it is inserted, as well as to make effective decisions in a diversified and constantly evolving world; develop a global vision necessary to understand in a comprehensive and full way the context in which an organization is inserted; provide knowledge for the rational use of available natural, financial, material and operational resources; to disseminate the concept of Environmental Management in a systemic, integrated and strategic way; meet the necessary conditions for decision-making; encourage the development of innovative management models; to provide humanistic training and a global vision that enables the understanding of the social, political, economic and cultural environment and the diversity and interdependence of the world.

PROFESSIONAL PROFILE

The technologist in Environmental Management plans, manages and executes the activities of diagnosis, impact assessment, proposition of mitigating measures - corrective and preventive - recovery of degraded areas, monitoring of natural resources and environmental quality. Regulating the use, control, protection and conservation of the environment, legal compliance assessment, environmental impact

analysis, risk assessment, reports and opinions are some of the duties of this professional, and may also design and implement policies and management programs and of environmental education, thus contributing to the improvement of the quality of life and the preservation of nature.

AREAS OF EXPERTISE

The environmental manager acts professionally on several fronts: in the public and private sectors, in autarchies, as an autonomous professional through consultancies, in the production of specific environmental opinions and analyzes; in advisory services, support of expertise, assistance in the production of environmental reports, environmental audits, urban and regional projects; in the elaboration and analysis of Environmental Impact Studies, Neighborhood Impact Studies, in Environmental Planning and elaboration of environmental scenarios to support decision making.

GENERAL COMPETENCES OF THE GRADUATE

The general professional competences of the Technologist in Environmental Management include:

- dynamism;
- environmental ethics;
- teamwork;
- multidisciplinary vision;
- critical and reflexive spirit;
- decision making;
- communication and expression capacity;
- conciliation of practice and theory in problem solving;
- project design;
- promotion of environmental education;
- work with environmental scenarios;
- ethical and responsible attitude of respect to values defined by the organization and society.

INFORMATION TECHNOLOGY MANAGEMENT

The college course in Information Technology Management belongs to the information and communication axis, according to the National Catalogue of Technology College Courses.

GENERAL OBJECTIVES OF THE COURSE

It is a course in the area of computing management. The future professional will coordinate the IT resources of a company (personnel, software or hardware) in any of these areas: commerce, services or industry.

The formation of the professional concentrates on the managerial aspects of technology, its methods, tools and management processes, thus encompassing the administration and the infrastructure with a strategic view of the organizations and their use of IT systems. The main objective is to use IT in order to make the company more efficient, sustainable and competitive in the market.

PROFESSIONAL PROFILE

The technologist in IT Management is an IT facilitator, who must be able to generate business value through the use of technology. He/She should administer the automated environments and must have a strategic view of business in order to make the companies competitive and to collaborate with the support and development of new products, services and business models.

AREAS OF EXPERTISE

This professional can work in the area of management of operating systems, computer networks, software projects, databases, integrated systems of management, IT projects, business intelligence, etc. In other words, they can diagnose the infrastructure of a company so as to implement IT solutions; they can manage IT projects (networks, databases, applications,

corporative portals, equipment) by articulating the technological infrastructure with the processes, the information, the personnel and the users; they can plan, organize and implement IT management processes aligned with the business strategies of an organization; they can identify, evaluate and coordinate solutions and application needs in the business environment; they can decide which computing systems will be used in the company management; they can work on the implementation, operation and maintenance of IT systems; they can decide on the best use of IT to boost up the performance of different departments in the company.

GENERAL COMPETENCES OF THE GRADUATE

The general professional competences of the technologist in IT management are:

- good communication ability;
- the creation of innovative solutions;
- effective decision making;
- negotiation abilities;
- logical thinking;
- ethical and responsible attitude towards organizational and social values;
- identification of business opportunities;
- ability to work in teams in several situations, bringing incentive and positive contributions.

LOGISTICS

The college course of Technology in Logistics belongs to the axis of Management and Business, according to the National Catalogue of Technology College Courses.

GENERAL OBJECTIVES OF THE COURSE

The course aims at the graduation of logistics professionals, who will be able to contribute to the innovation and improvement of processes in the organizations, foreseeing problems and solving them so as to minimize cost and maximize benefits for the business economic activities, from an ethical and sustainable perspective.

PROFESSIONAL PROFILE

The logistics technologist is specialized in storage, distribution and transportation; they plan and coordinate the physical and informational mobility in the multimodal and intermodal transportation, including the personnel management, in order to achieve an optimum flow in the supply chain. They project and manage distribution networks and logistics units, establishing purchasing processes, identifying suppliers, negotiating and establishing patterns of inbound, storage, motion and packaging of materials. They are still in charge of the inventory and strategic management of stocks, supplying systems, programming, monitoring of the flow of orders, calculation of freight costs and transhipment.

This professional coordinates the systems of traffic and management of cargo and passengers transport, in highways, railways, airways, waterways and ducts both globally and locally.

AREAS OF EXPERTISE

The logistics technologist can work in the areas of distribution, storage and transportation of assets, goods and services, with potential to achieve the positions of manager and director or, even, entrepreneur. They can also work as teachers, researchers or independent consultants in the logistics area.

GENERAL COMPETENCES OF THE GRADUATE

- develop a systemic view of the management of companies;
- understand logistics as part of corporative strategy;
- work with *Supply Chain Management*;
- coordinate managerial activities;
- optimize the logistics processes, by using IT, thus increasing productivity and reducing losses in transportation and storage;
- use planning tools, to implement, control and evaluate the procedures involving human resources and materials in the systems of storage, transport and distribution;
- analyze, structure and summarize information related to logistics storage, transport and distribution of goods;
- define the logistics of supplies policy;
- participate in the strategies for the investment in and the sale of assets;
- correlate the several modals of transport to the sort of goods transported;
- organize and control the operations of storage, transport and distribution of goods;
- implement programs and procedures.

EMBEDDED SYSTEMS

The college course in Technology of Embedded Systems, in accordance with the National Catalogue of Technology College Courses, belongs to the axis of Information and Communication. In a connected world, intelligent devices increasingly occupy more space in people's everyday lives. There are intelligent vehicles and intelligent houses, systems monitor the use of natural resources and equipments take care of people's health and safety.
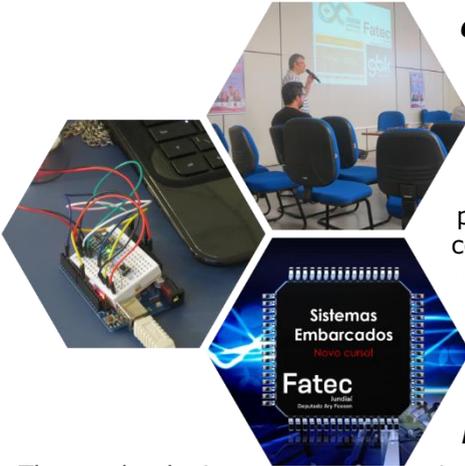
GENERAL OBJECTIVES OF THE COURSE

The course intends to provide professionals with competences to work in microcontroller programming, microprocessors and programmable logic devices, applying computing concepts and tools, projects of electronic circuits and product design to the development of embedded systems.

PROFESSIONAL PROFILE

The technologist in Embedded Systems analyzes, projects, develops, tests, implements, documents and maintains software and hardware for microcontrollers, microprocessors and programmable logic devices. He or she evaluates, selects, specifies and uses methodologies, technologies and tools of software engineering, programming languages, databases , projects of electronic circuits and produt design in the development of embedded systems. He or she specifies the minimum requirements of hardware and software for embedded systems and also inspects, provides technical expertise, evaluates, and issues technical reports in the area.

AREAS OF EXPERTISE

The professional of Embedded Systems can work in:
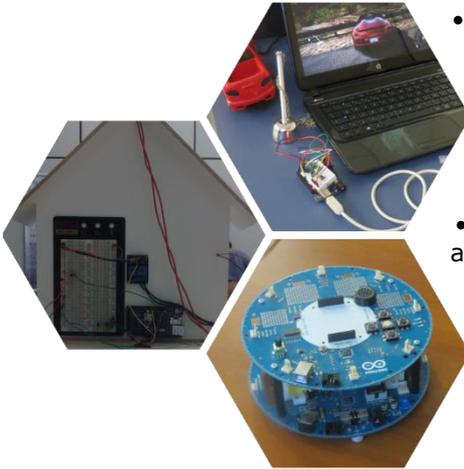
- technology companies in residential, commercial and industrial control and automation, as well as in safety equipment;
- Automotive sector;
- industry, commerce and services in general;
- non-governmental organizations and public agencies;
- institutes, research centers and educational institutions;
- development of his/her own business.

GENERAL COMPETENCES OF THE GRADUATE

The general competences of the professional in Embedded Systems include:

- ability to identify needs, develop and implement solutions, using microcontrollers, microprocessors and/or programmable logic devices;
- ability to develop collaborative activities in multidisciplinary teams;
- sensitivity to humanistic, social and environmental issues due to his/her ethical and professional training;
- management of the process of embedded systems development;
- ability to identify and evaluate the communication patterns and devices, recognizing their implications in network environments;
- ability to create contingency plans in order to keep the systems in operation.

EXTENSION ACTIVITIES

(Free and open to the general public)

PEC – Programa de Extensão e Cultura
The activities of extension and culture are those promoted by the academic institution, which allow the approximation and integration with the state authority, the private initiative and the community in general. These activities try to undertake efforts to support professional formation, continuing education, diffusion courses and cultural activities that strengthen and promote the technology courses offered by Fatec Jundiaí.

FATECINO- Arduino Club
In operation since February 2014, Fatecino is an Arduino Club that explores concepts related to Physical Computing, Internet of Things (IoT) and Programming Logic. It offers meetings open to the general public weekly.

GAMETEC- Games Development Workshop
Weekly meetings where concepts and tools for computer game development are discussed

FATUX- Study Group GNU/Linux
Weekly meetings which discuss the Linux Operating System and its various distributions. These meetings also aim at being a preparatory course working toward a certification in Linux

WebTEC – Workshop for development of Responsive Web Layout, it offers weekly meetings in which concepts of HTML5, CSS3 and development frameworks are approached.

PyTec-Study Group in Python – Weekly meetings to address concepts and applications of the Python programming language.

Fatec Jundiaí Book Club – Every semester a book is recommended for reading and discussion.

Fatec Jundiaí can develop and offer to the business sector specific formation courses in different levels and areas of variable duration, depending on the needs of companies.

INTRODUCTION TO SCIENTIFIC RESEARCH PROGRAM

The Introduction to Scientific Research Program is focused on the development of scientific thinking and technological research in the formation of undergraduate students of the various courses offered by Fatec Jundiaí. The college, through the Commission of the Introduction to Scientific Research Program, opens registration notices for the Program annually. Its objective is to promote, through research, scientific, technological and business knowledge in the search for innovation that favors not only the academic community, but society in general regarding the analysis and solution of problems through scientific methods. The program, which began in 2014, has already had 35 scientific and technological projects, guided by Master and Doctoral Teachers, promoting over the years a policy of introduction to scientific research within the Institution.

TECHNOLOGY AND CULTURE ONLINE MAGAZINE

Currently in its 21st Edition a, exclusively an online version, it is a biannual publication of Fatec Jundiaí.

It has been made with three basic objectives:

- propagate scientific production in Brazilian Undergraduate Schools, allowing it to circulate and be discussed in a critical and referenced manner;
- foster the academic debate on the theme of Technology and Culture in its different dimensions, valuing, above all, the interdisciplinary dialogues;
- contribute, in a decisive way, to the critique and proposition of intervention models, public or private.

The magazine has pluralistic orientation and publishes scientific papers of national and international collaborators who present original contributions, theoretical or empirical, related to the areas of Events, Computing, Logistics, Science and Technology and related areas.