

Education



ipen

30
anos

PÓS-GRADUAÇÃO
Tecnologia Nuclear

UST 2006

The central graphic features the IPEN logo at the top right, a large stylized '30' with starburst effects, the word 'anos' below it, the text 'PÓS-GRADUAÇÃO Tecnologia Nuclear' in bold, and 'UST 2006' at the bottom. The entire graphic is set against a dark red background within a gold-bordered frame.

Introduction

The Education Program at IPEN aims to develop human resources through scientific training programs and to provide and disseminate scientific information in nuclear and correlated areas.

IPEN is responsible for the graduate program in the nuclear area at University of São Paulo, the Nuclear Technology Program IPEN/USP. This Program completed 30 years on March 2006. Some highlights of the Program since its creation are summarized below:

1975 - Prof. Rui Ribeiro Franco was nominated by the superintendent at that time, Prof. Rômulo Ribeiro Pieroni, to elaborate a proposal for a graduate program for IPEN in association with the University of São Paulo. At that moment Prof. Orlando Marques Paiva was the dean of the University. Prof. Paschoal Ernesto Américo Senise, responsible for the Graduate Program at USP was very supportive during the creation of the Program at IPEN.

1975 - Professors Fausto Walter de Lima, Alcídio Abrão, José Moura Gonçalves, together with Rui Ribeiro Franco conceived the master and doctoral program in nuclear technology.

17/11/1975 - The superintendent Prof. Rômulo Ribeiro Pieroni, settled the first Graduate Committee constituted by Rui Ribeiro Franco, Wladimir Sanchez, Alcídio Abrão, Fausto Walter de Lima and Roberto Fulfaro. Claudio Rodrigues, Constância Pagano Gonçalves da Silva, Laura Tognoli Atalla, Maria José Coutinho Nastasi and Achilles Alfonso Soares were their substitutes.

16/03/1976 - Resolution 905 from University of São Paulo was published approving the Graduate Program Statute.

01/04/1976 - The Nuclear Technology Program Basic Nuclear Technology Concentration Area was officially implemented for Master and Doctoral Degree.

01/03/1977 - Another concentration area was implemented Nuclear Power Reactor and Nuclear Fuel technology.

12/12/1997 - A new terminology for the Graduate Program was approved, including the following areas:

Nuclear Technology - Applications

Nuclear Technology - Materials

Nuclear Technology - Reactors

Since its creation the Program was evaluated with grade A by the Federal Government Evaluation (CAPES), the highest in this classification. In 2003 CAPES changed the evaluation criteria; since then it has been considered a program of Excellence, with grade 6. Levels 6 and 7 are granted only to those programs having internationally recognized expertise. Along its 30 years the Nuclear Technology Program awarded 833 Master's Degrees and 387 Doctor's Degrees.

IPEN is responsible for the graduate program in the nuclear area at University of São Paulo, the Nuclear Technology Program IPEN/USP. This Program started at 1976 and presents nowadays three concentration areas: Applications, Materials and Reactors. The Federal Government Evaluation (CAPES) granted grade 6, considering it a program of Excellence, for the period comprehending 2005-2007. IPEN has maintained this grade since 2003. Until 2007 the program awarded 1395 titles: 937 master's degrees and 458 doctor's degrees. The performance during this period is shown in Table 1.

TABLE 1. Nuclear Technology Graduate Program

	2005	2006	2007
Master degrees awarded	42	58	56
Doctor degrees awarded	51	59	28
Offered disciplines	66	79	87
Total graduate enrollment	384	390	421

IPEN is also responsible for the Professional Master Degree Course - Lasers in Odontology, in partnership with the School of Dentistry from University of São Paulo. This program began in 1999 and till now 131 master's degrees were conceded. This program was evaluated with the highest degree by CAPES. It is considered a model program. The numbers for the period are presented in Table 2.

TABLE 2. Professional Master Program

	2005	2006	2007
Master degrees awarded	15	14	17
Offered disciplines	8	8	8

The institute also offers, since 2000, undergraduate disciplines for students of the University of São Paulo. A total of 21 disciplines have been approved by the University (Table 3).

TABLE 3. Undergraduate Program

	2005	2006	2007
Offered disciplines	17	16	17
Enrolled students	234	213	282

The institute has a research initiation program for undergraduate students aiming to stimulate young people to enter the scientific research career. This program allows the student to enter scientific world under the guidance of a supervisor to develop a specially assigned study. CNEN and CNPq are the main funding agencies for a Research Initiation Scholarship Program supporting these activities. The number of scholarships offered in the period is shown in Table 4.

TABLE 4. Undergraduate Scholarship Program

Funding agency	DOCTOR DEGREE		
	2005	2006	2007
CNPq	35	35	36
CAPES	17	17	17
FAPESP	13	10	11
CNEN	-	6	5
IPEN	-	-	3
Total	65	68	72

Funding agency	MASTER DEGREE		
	2005	2006	2007
CNPq	22	23	24
CAPES	15	15	15
FAPESP	8	12	13
CNEN	-	10	20
IPEN	-	-	14
Total	45	60	86

On 2005 it was approved the postdoctoral program regulating the activity at the institution. During the considered period around 30 professionals enrolled the program.

To accomplish all the activities mentioned above, IPEN has an Education Directory and a dedicate building, having facilities such as: one hall for events, two auditoriums (70 people approximately), two computer labs and 10 classrooms.

Concerning scientific information support, it is available a central specialized library, which offers, beyond traditional collections and services, a comfortable studying place for the students and the IPEN community, nice equipped with network wireless and stations to support search and consult to all the information resources.

There is a local reference and technical information desk support provided by the staff. Access to all the main electronic information resources in the country, as to the electronic CAPES and USP data bases and journals are assured and managed through collaborative arrangements.

The library also manages the institutional repository with 40% full text records authored by IPEN scientific community; 1800 digital dissertations and theses added in 2008.

The nuclear science libraries network was implemented, last year, in order to improve the nuclear science literature access and the interlibrary loan.