

# Education





## Introduction

The Education Program of 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. Since its creation, in 1976, 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. Level 6 was maintained in the last evaluation considering the period 2010-2012. Along its 40 years, the Nuclear Technology Program awarded 2,582 titles: 1,721 masters and 861 doctoral degrees.

IPEN has a Scientific Initiation Program for undergraduate students aiming to stimulate young people to enter the scientific research career. This program allows the student to have the opportunity to develop a specially assigned study under the guidance of a supervisor. CNEN and CNPq are the main funding agencies supporting this Program. The institute also offers, since 2000, undergraduate disciplines for students of the University of São Paulo. A total of 33 disciplines have been approved by the University. In the period considered, about 8000 students attended the courses.

There is also a Scholarship Program for graduate students, funded by CNPq, CAPES and IPEN. Scholarships funded by Fapesp and CNEN are also available on demand, according to the conditions set forth in the respective notices.

Concerning scientific information support, there is an available central specialized library, which offers, beyond traditional collections and services, a comfortable and pleasant place to study, for students and the IPEN community, nicely equipped with wireless connection and stations for research support and consult to all the information resources. The library also manages the institutional repository allowing access to the digital content of articles from periodicals, national and international events, books, chapters, theses and dissertations.

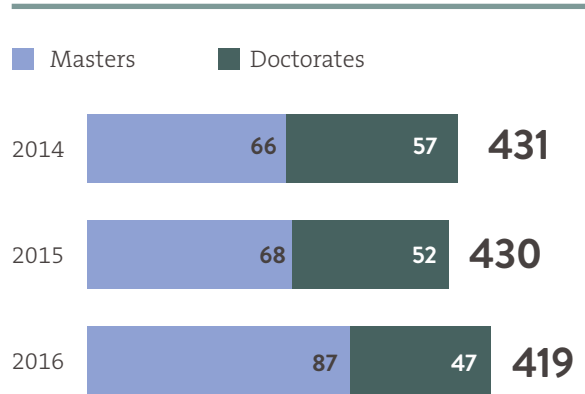
The education page on the IPEN website provides information about the structure and application procedures for the graduate program on nuclear technology and the Scientific Initiation Program for undergraduate students. Statistical data on all programs and the calendar of events can also be accessed. Other information like the disciplines to be offered, the advisors for the graduate program and the scholarships offered and conditions and period for submitting applications are also available.

## Nuclear Technology Graduate Program

IPEN is responsible for the graduate program in the nuclear area at the University of São Paulo, the Nuclear Technology Program IPEN/USP. This Program started in 1976 and presents 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 2013-2016. IPEN has maintained this grade since 2003. Along its 40 years the program awarded 2,594 titles: 1,732 masters and 862 doctorates.

The performance during the period considered in this report is presented in Table 1.

**TABLE 1. Nuclear Technology Graduate Program**



## Undergraduate disciplines

The institute also offers, since 2000, undergraduate disciplines for students of the University of São Paulo. A total of 33 disciplines have been approved by the University. Disciplines are offered according to teacher availability and student demand. The figures for the period covered in this report are shown in table 2.

**TABLE 2. Undergraduate Program**

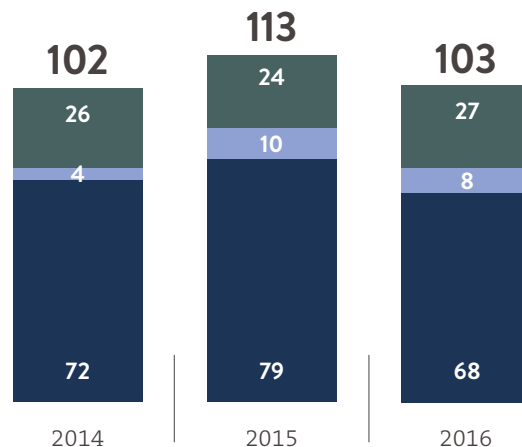
	2014	2015	2016
Offered disciplines	12	14	13
Enrolled students	260	271	256

## Scientific and Technological Initiation Program

The institute has a Scientific and Technological Initiation Program for undergraduate students aiming to stimulate young people to enter the scientific research and the technological careers. This program offers to the student an opportunity to get into the scientific and technological worlds under the guidance of a supervisor to develop a specially assigned project. CNEN and CNPq are the main funding agencies for the Scientific and Technological Initiation Scholarship Program supporting these activities. The number of scholarships offered in the period is shown in Table 3.

Every year, the students holding undergraduate scholarship have to present their studies in a Seminar to an audience including a committee of evaluation. Prizes

**TABLE 3. Undergraduate Scholarship Program**

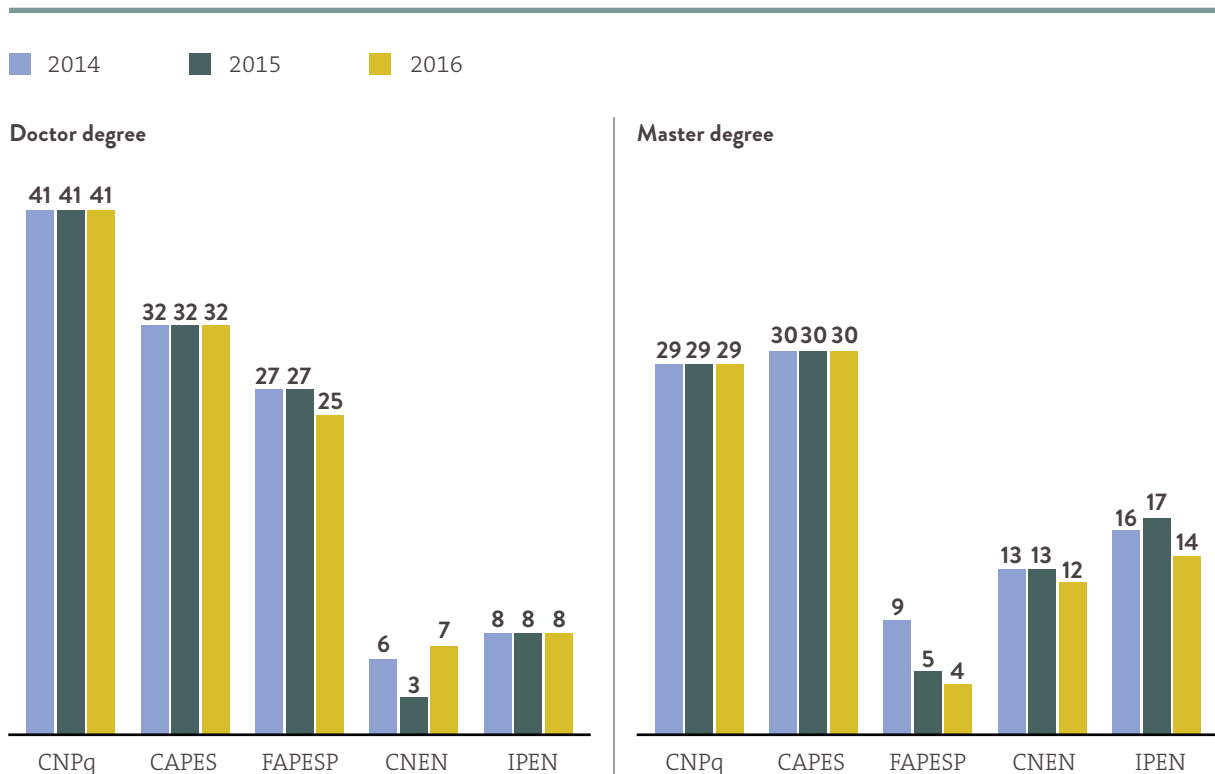


and certificates are given to the best presentations

## Graduate Scholarship Program

There is also a Scholarship Program for graduate students, funded by CNPq, CAPES, Fapesp. Since 2006, CNEN and IPEN started a scholarship program, a very old demand from the IPEN community. The total number of scholarships awarded during the period considered is presented in Table 4.

**TABLE 4. Scholarship Programs**



## Postdoctoral Program

The postdoctoral program regulating the activity at the institution was approved in 2005. During the period considered in this report, around 100 professionals were enrolled in the program and 30 were supported by postdoctoral scholarships.

## Facilities and Support

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

Concerning scientific information support, there is available a specialized central library, which offers, beyond traditional collections and services, a comfortable place for the students and the IPEN community to study, nicely equipped with wireless and stations for search support and allowing the consult to all the available information resources. There is a technical and reference information desk provided by the staff. Access to all the main electronic information resources in the country, like electronic journals provided by CAPES and USP data bases are assured and managed through collaborative arrangements.

The IPEN Digital Repository is an open access institutional equipment created with the objective of gathering, preserving, making available and giving greater visibility to the Scientific Production published by the Institute since its creation in 1956. Access to the digital content of articles from periodicals, national and international events, books, chapters, theses and dissertations is available in the Repository.

The education page on the IPEN website provides information about the structure and the application procedures for the graduate program on nuclear technology and the Scientific and Technological Initiation program for undergraduate students. Other information like the disciplines to be offered, the advisors for the graduate program, and the scholarships offered and conditions and period for submitting applications are also available. The entire processing of documents for submission to the graduate committee is made online.



