MASTER'S AND DOCTORATE STUDIES IN PHYSICAL SCIENCES AT UMSNH

Our MSc and PhD programs aim at the formation of researchers, teachers and professionals with high quality and excellent standards, based on the active and joint participation of students and supervisors in the solution of theoretical problems emerging from the practice of physics and its applications.

Based on the articles, 3rd, Fraction VII, of the Political Constitution of the United Mexican States; 2nd of the General Law of Education; 1st and 2nd, Fraction I of its Organic Law; 1st, 4th and 87th of its General Statute; 1st, 4th, 41st, 51st and 52nd of the General Regulation of University Studies; 1st, 2nd, 12nd, 13th and 16th of the General Regulation of Enrollment; 1st, 7th and 53th of the General Regulation of Postgraduate Studies, candidates from Mexico and abroad are invited to apply for enrollment in the following programs:

**Master of Science in the Field of Physics**
**Doctorate of Science in the Field of Physics**

for the semester 2019-2020 starting **September 1st 2019**, in the following areas of knowledge:

- Cosmology and Astrophysics
- Elementary Particle Physics and High Energy Physics
- Statistical Physics
- Gravitation
- Numerical Relativity and Hydrodynamics
- Complex Systems and Biophysics
- Quantum Field Theory

The Department that offers the MSc and PhD programs in Physical Sciences is the Institute of Physics and Mathematics (IFM) of UMSNH.
Those programs offer to the students:

- Flexible syllabi that favor an efficient and actualized education across the spectrum of physics, according to professional and academic needs, allowing interdisciplinary interaction.
- Academic staff with dedication to teaching and research, including professional activities external to the University.
- Infrastructure consisting of library facilities, computer equipment and other academic services.
- Participation in research networks and international projects that provide opportunities for interchange and mobility with the best Universities in Mexico and worldwide.
- Quality warranty: both the programs (Master’s and Doctorate) are registered with the National Program of Quality Postgraduate Studies (PNPC) of the National Council of Science and Technology (CONACyT) under the rank of International Level. CONACyT requires a minimum grade average in order for the applicants to be considered for a scholarship (presently 7.8 on a scale of 0-10).

1. SELECTION PROCESS

To participate in this announcement, it is necessary to complete in due time the detailed process below. Omission of any stage or missing documents invalidates the participation of the candidate in the selection process. Any apocryphal, altered document or serious academic faults shall cause unappealable cancellation of the candidate’s participation in the selection process even after being accepted and enrolled. In such cases enrollment will be cancelled leaving without effect all acts derived from the same.

The selection process is under the charge of an Admission Committee, formed by members of the academic staff. The Committee is responsible for reviewing the application documents of the candidate, verifying exam results, interviewing the candidate (if necessary) and declaring a decision. The Academic Committee shall finally approve or rectify (if necessary) the list of accepted candidates, which will be available on the website of the Programs.

The selection process consists in stages A, B and C (consecutively):

A. APPLICATION FOR ENROLLMENT AND RECEIPT OF DOCUMENTATION

From April 29 to June 21, 2019, the required documentation must be delivered to the Academic Secretary of the Program, located in Building C-3 of the Institute of Physics and Mathematics, University City, in Morelia, Michoacán, Mexico.
• Candidates from outside the city of Morelia can send their documents via email to: alejandraquiyono@ifm.umich.mx

Documents should be scanned on both sides (obverse and reverse). Candidates resident in Morelia who cannot deliver their documents personally can also send them by email, with prior justification.

I) Documents required to register as candidates for enrollment in the Master of Science in the Field of Physics program:

1. **Signed application letter**, accepting the terms of the announcement.
2. **Copy of certificate of Undergraduate Studies** or academic record in Physics or related field, specifying the completion of 100% of syllabus. In case the certificate does not specify the grade average, candidate should add a copy of an official grades record by the University of her/his program.
3. **Curriculum Vitae**, highlighting academic background and professional experience; it must include telephone number, email, RFC and CURP (for Mexican applicants) and student number (“matrícula” for UMSNH graduates).

Once accepted in the program, students should present the original documents for enrollment. The list of required documents for enrollment in the Master’s program are found at the link: http://www.ifm.umich.mx/ifm/index.php/instituto/reglamentos/

II) Documents required to register as candidate for enrollment in the Doctorate of Science in the Field of Physics program:

• **Signed application letter**, accepting the terms of the announcement. Furthermore, the letter should include the signature of the proposed advisor.
• **Curriculum Vitae**, highlighting academic background and professional experience; it must include telephone number, email, RFC and CURP (for Mexican applicants) and student number (“matrícula” for UMSNH graduates).
• **Undergraduate degree**.
• **Master’s degree**.
• **Original certificate of undergraduate grades**.
• **Original certificate of Master’s grades**.
• **Proposal** by the advisor of IFM supervising her/his thesis, signed by the advisor.

All documents written in a language other than Spanish must include a certified translation.

Once accepted in the program, students should present the original documents for enrollment. The list of required documents for enrollment in the Doctorate program are found at the link: http://www.ifm.umich.mx/ifm/index.php/instituto/reglamentos/
**Important Note:** check the list of tutors posted at the website of the Postgraduate Programs: http://www.ifm.umich.mx/ifm/index.php/fisca/director-doctorado-directores-de-tesis-y-tutores/
so as to propose one of them as advisor, according to the applicant’s research interests, with previous authorization of the tutor.

**Particular points for applicants with studies abroad or of non-Mexican nationality:**

1. In case of acceptance, foreign candidates must:
   a) Fulfill the migratory requirements for her/his entrance and permanence in the country, as well as the renewal of her/his migratory documents (http://www.gob.mx/tramites).
   b) Apply for their CURP, see announcement at: http://www.gob.mx/tramites/ficha/obtencion-de-la-currp/SEGOB173
   c) Apply for their RFC with the Taxation Administration Service (SAT), see announcement at: http://www.sat.gob.mx/
   d) Provide apostilled or legalized copies of birth certificate and official documents of previous studies referred to in part A above (selection process). If these documents are written in a language other than Spanish, a translation performed by an Official Mexican “Perito Traductor” is required. The copies of the degree certificates must furthermore be notarized.

2. In case of acceptance, applicants who have obtained their degrees abroad must obtain a grade equivalence of their average grades. The application for the grade equivalence has to be presented to the General Director of Incorporation and Revalidation of Studies of UMSNH personally and independently of the selection process. It is recommendable to anticipate sufficient time.

It is important to mention that admission to the Master’s or Doctorate programs requires knowledge of Spanish or English.

**B. EXAM OF PREVIOUS KNOWLEDGE, SKILLS AND APTITUDES.**

Once all application documents have been delivered, applicants for the Master’s and Doctorate programs must take an exam of previous knowledge, skills and aptitudes.

**MASTER’S.** In the case of admission to the Master’s program, applicants must take an admission exam in the following four subjects: Classical Mechanics, Electrodynamics, Mathematical Methods for Physicists and Thermodynamics. The IFM offers preparatory courses in each of these four subjects. Exams will take place on **August 5 and 6, 2019** at the Institute of Physics and Mathematics, UMSNH.
Information relative to the venue and schedule for the exams and preparatory courses will be available on the website of IFM. Applicants interested in taking the exam at external venues (including abroad) must contact the Academic Secretary of IFM, Mtra. Alejandra Ayala Quiyono, by sending an email to: alejandraquiyono@ifm.umich.mx

Students who have passed one or more subjects of the admission exam of the 2018-2019 program are not required to be examined in this subject again. Students who graduated from the UMSNH School of Physics and Mathematics are granted admission automatically provided they have an average grade not less than 9 in each of the courses of:

- Quantum Mechanics I
- Theoretical Mechanics
- Mathematical Methods for Physics I
- Mathematical Methods for Physics II
- Electromagnetic Theory
- Thermodynamics

Approved exams have a validity of two years.

**DOCTORATE.** There are various modalities for the admission process to the Doctorate, including in certain cases the applicant can be exonerated from taking the admission exam (in particular, this is the case of the candidate presents a result of 700 points or above in the Graduate Record Examination in Physics). The details are specified in the Regulation of the Doctorate in Physics, found at the link: http://www.ifm.umich.mx/ifm/index.php/instituto/reglamentos/

Admission exams for the Doctorate program will take place during June 27 and 28, 2019 at the Institute of Physics and Mathematics, UMSNH. Information relative to the venue and the schedule of the exams will be available at the website of IFM. Applicants interested in taking the exam in external venues (including abroad) should contact the Academic Secretary of IFM, Mtra. Alejandra Ayala Quiyono, by sending an email to: alejandraquiyono@ifm.umich.mx

Approved exams have a validity of two years.

**C. INTERVIEW**

The Admission Committee can request applicants to take an interview after the written exams. Interviews will take place during July 1 and 2, 2019 at the Institute of Physics and Mathematics. Applicants required to be interviewed will be contacted either by telephone or by email.
PUBLICATION OF RESULTS

Results of the admission process will be announced by email in a personal manner according to the dates indicated in the calendar below.

Accepted applicants must complete the enrollment procedure according to the instructions presented in this announcement.

D. CALENDAR

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DATE</th>
<th>TIME</th>
<th>VENUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration of Applicants</td>
<td>April 29-June 21, 2019</td>
<td>8-13</td>
<td>Scholar Control Department, Building C-3, Institute of Physics and Mathematics, University City, Morelia, MEXICO.</td>
</tr>
<tr>
<td>Exam of knowledge, skills and aptitudes, Doctorate program</td>
<td>June 27-28, 2019</td>
<td>10-12 and 16-18</td>
<td>Building C-3, Institute of Physics and Mathematics, University City, Morelia, MEXICO. Applicants interested in taking the exams in external venues must contact the Academic Secretary of IFM at <a href="mailto:alejandraquiyono@ifm.umich.mx">alejandraquiyono@ifm.umich.mx</a></td>
</tr>
<tr>
<td>Interview with the Admission Committee</td>
<td>July 1-2, 2019</td>
<td></td>
<td>Building C-3, Institute of Physics and Mathematics, University City, Morelia, MEXICO or videoconference for applicants who have requested so through the Academic Secretary of IFM.</td>
</tr>
<tr>
<td>Publication of results regarding the Doctorate program</td>
<td>July 5, 2019</td>
<td>12am</td>
<td>email</td>
</tr>
<tr>
<td>Exam of knowledge, skills and aptitudes, Master’s program</td>
<td>August 5-6, 2019</td>
<td>10-12 and 16-18</td>
<td>Building C-3, Institute of Physics and Mathematics, University City, Morelia, MEXICO. Applicants interested in taking the exams in external venues must contact the Academic Secretary of IFM at <a href="mailto:alejandraquiyono@ifm.umich.mx">alejandraquiyono@ifm.umich.mx</a></td>
</tr>
<tr>
<td>Publication of results regarding the Master’s program</td>
<td>August 9, 2019</td>
<td>12am</td>
<td>email</td>
</tr>
<tr>
<td>Reception of documentation for official enrollment at UMSNH of accepted applicants</td>
<td>TBA</td>
<td>8-13</td>
<td>Department of Scholar Control, Building C-3, Institute of Physics and Mathematics, University City, Morelia, MEXICO.</td>
</tr>
</tbody>
</table>

ANY UNANTICIPATED SITUATION RELATED TO THE PRESENT ANNOUNCEMENT WILL BE RESOLVED BY THE ADMISSION COMMITTEE THROUGH THE COORDINATION OF THE RESPECTIVE PROGRAM. THE SELECTION PROCESS AND RESULTS ARE UNAPPEALABLE.

Info: Academic Secretary, IFM  
Mtra. Alejandra Ayala Quiyono  
Phone: (443) 322 3500 Ext. 4138  
Email: alejandraquiyono@ifm.umich.mx

Coordinator de the Postgraduate Studies in Sciences in the Field of Physics:  
Dr. Olivier Sarbach  
Phone: (443) 322 3500 Ext. 1262  
Email: sarbach@ifm.umich.mx

Website: [http://www.ifm.umich.mx/ifm/](http://www.ifm.umich.mx/ifm/)

Morelia, Michoacán, Mexico, February 28, 2019