

• **PHD IN:**  
MICROBIOLOGY

• **SCHOOL:**  
BIOLOGICAL AND ENVIRONMENTAL SCIENCES

## CURRICULUM - BASIC

CODE	COURSE NAME	CREDITS	CODE	COURSE NAME	CREDITS
MMCR 6101	Molecular Biology 1 +Lab	3	MMCR 6102	Molecular Biology 2	3
MMCR 6001	Biostatistics	3	MMCR 7003	Microbial Genetics	3
MMCR 7002	Diagnostic Laboratory	3	MMCR 7086	Animal Immunology	3
MMCR 6007	Biosafety & Bioethics	3	MMCR 6082	Population & Evolution	3
MMCR 7088	Virology	3	MMCR 6005	Topics in Genetic Engineering	3
MMCR 7085	Waste Water Treatment	3	MMCR 6002	Medical Entomology	3
MMCR 7087	Parasitology	3	MMCR 7004	Epidemiology	3
MMCR 7009	Microbial Physiology	3	MMCR 7081	Bioremediation + Lab	3
MMCR 7083	Scientific Communication	3	MMCR 7084	Experimental Design	3

**AVAILABLE CREDITS FOR BASIC CURRICULUM: 54**

Doctorate Regulations (2018), ARTICLE 5.- ... In the event that the applicant had a professional master's degree or research master's degree in a different field of knowledge from that of the doctoral program, the Program's Doctoral Committee may request the admitted student the approval of complementary courses, or specific training, being its power to determine the courses to take, depending on the profile of each student. These courses will not be credited as hours for the approval of the doctoral program .... The fields of knowledge that enable to apply for a doctoral program or in its propaedeutic phase will be proposed by each program for approval by the CES. ARTICLE 16.- Preparatory courses.- For applicants from professionalizing master's degrees ..., from any field of knowledge or research master's degrees in a field of knowledge other than the doctoral program, preparatory courses must be offered ... They will design and adapt to the diversity of professional and academic profiles of the applicants as well as to the requirements of the doctoral program. The Doctoral Committee will define the preparatory courses that must be approved by each applicant.  
ALL COURSES ARE DELIVERED IN SPANISH.

## CURRICULUM - PHD PROGRAM EXCLUSIVELY FOR ADMISSION IN MAY, 2022

### Summer Session (May, 2022)

CODE	COURSE NAME	CREDITS
DMCR 6402	Teaching Science	3
<b>Total credits for summer session</b>		<b>3</b>

**YEAR 1**

### Semester 1

CODE	COURSE NAME	CREDITS
DMCR 6001	Science and Epistemology	3
DMCR 6101	Research Topics 1	3
DMCR 6302	Research Workshop 1 +Pr	4
DMCR 6501	Rotation 1	3

**Total credits for semester 1**      **13**

### Semester 2

CODE	COURSE NAME	CREDITS
DMCR 6002	Microbial Genomics	3
DMCR 6102	Research Topics 2	3
DMCR 6303	Research Workshop 2 +Pr	4
DMCR 6502	Rotation 2	3

**Total credits for semester 2**      **13**

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**YEAR 2**

## Semester 3

CODE	COURSE NAME	CREDITS
DMCR 7103	Research Topics 3	3
DMCR 7301	Research Workshop 3 +Pr	4
DMCR 7401	Practice in Teaching Science 1	3
DMCR 7501	Rotation 3	3
<b>Total credits for semester 3</b>		<b>13</b>

## Semester 4

CODE	COURSE NAME	CREDITS
DMCR 7104	Research Topics 4	3
DMCR 7304	Research Workshop 4 +Pr	4
DMCR 7403	Practice in Teaching Science 2	3
DMCR 7502	Rotation 4	3
<b>Total credits for semester 4</b>		<b>13</b>

**YEAR 3**

## Semester 5

CODE	COURSE NAME	CREDITS
DMCR 8105	Research Topics 5	3
DMCR 8304	Research Workshop 5 +Pr	4
DMCR 8401	Practice in Teaching Science 3	3
DMCR 8501	Rotation 5	3
<b>Total credits for semester 5</b>		<b>13</b>

## Semester 6

CODE	COURSE NAME	CREDITS
DMCR 8106	Research Topics 6	3
DMCR 8302	Research Workshop 6 +Pr	4
DMCR 8402	Practice in Teaching Science 4	3
DMCR 8502	Rotation 6	3
<b>Total credits for semester 6</b>		<b>13</b>

**YEAR 4**

## Semester 7

CODE	COURSE NAME	CREDITS
DMCR 9301	Research Workshop 7 +Pr	4
<b>Total credits for semester 7</b>		<b>4</b>

## Semester 8

CODE	COURSE NAME	CREDITS
DMCR 9993T	Dissertation +Pr	4
PPOS 6999	Graduate School Colloquia	1
<b>Total credits for semester 8</b>		<b>5</b>

**TOTAL CREDITS TO BE COMPLETED DURING THE PHD PROGRAM: 90**

**NOTE 1:** The sequence of the courses in this curriculum could vary depending on the availability of professors, schedules, location, etc.; the academic load will be respected as noted.

**NOTE 2:** Students who enter the program from an academic master's degree with a professional trajectory or different from that of the program must complete a minimum of 120 credits, with the subjects of the basic curriculum, to be established by the Academic Committee of the Program.

**NOTE 3:** The graduate program is conducted entirely in Spanish.