

March 14, 2024

**To:** David D. Oglesby, Chair  
Graduate Council

**From:** Roya Zandi, Director  
Biophysics Graduate Program

**Re:** Biophysics Admissions Requirement Update. The program will remove the GRE exam from the program admission requirement.

Present	<u>Proposed</u>
<p><b>Admission</b></p> <p>Students must have a B.A. or B.S. degree in Biology, Biochemistry, Biophysics, Chemistry, Physics or in a related field from an accredited institution and an academic record that satisfies the minimum admission standards established by the UCR Graduate Division. <del>In addition, students are required to take the GRE General Test as well as the Subject Examination in Biochemistry, Biology, Chemistry or Physics, which must be submitted at the time of application.</del> Students admitted to regular standing will have satisfied all prerequisite course work. Under special circumstances, students who have not completed all undergraduate requirements may be admitted provided that the deficiencies are corrected early in their graduate studies. Undergraduate or other previous training must include the following coursework:</p>	<p><b>Admission</b></p> <p>Students must have a B.A. or B.S. degree in Biology, Biochemistry, Biophysics, Chemistry, Physics or in a related field from an accredited institution and an academic record that satisfies the minimum admission standards established by the UCR Graduate Division. Students admitted to regular standing will have satisfied all prerequisite course work. Under special circumstances, students who have not completed all undergraduate requirements may be admitted provided that the deficiencies are corrected early in their graduate studies. Undergraduate or other previous training must include the following coursework:</p> <ul style="list-style-type: none"> <li>• One year of introductory biochemistry, including laboratory</li> <li>• One year of introductory biology, including laboratory</li> </ul>

- One year of introductory biochemistry, including laboratory
- One year of introductory biology, including laboratory
- One year of introductory chemistry, including laboratory
- One year of organic chemistry, including laboratory
- One year of introductory physics, including laboratory
- One year of calculus, plus one upper division mathematics course

Students with strong academic records may be admitted with coursework deficiencies, provided they are remediated during the first two years of graduate study.

- One year of introductory chemistry, including laboratory
- One year of organic chemistry, including laboratory
- One year of introductory physics, including laboratory
- One year of calculus, plus one upper division mathematics course

Students with strong academic records may be admitted with coursework deficiencies, provided they are remediated during the first two years of graduate study.

**Justification:** Beginning in 2020, graduate programs have been asked by Graduate Division to consider removing the GRE requirement for admission to the Ph.D. and MS degrees. To align with current practices in many UCR graduate programs, the Biophysics program will substitute the GRE requirement with use of an admissions rubric in evaluating applications. Use of the rubric is expected to provide a quantitative metric for applicant suitability that reflects a more multi-faceted view of the applicant than the GRE score, thus significantly enhancing holistic application review.

Faculty Vote Date:	
Program Director	Roya Zandi
Signature:	
Date:	

**Grad Division Admissions Rubric**

**College Name:** College of Natural and Agricultural Sciences

**Degree:** Ph.D. – Biophysics

Admissions Criteria/Expectation	7–9 points	4–6 points	1–3 points
<b>Academic Preparation:</b>			
<b>Applicant has the academic preparation in Biophysics-related principles needed to succeed in Biophysics graduate coursework.</b>	Applicant’s undergraduate cumulative GPA substantially exceeds requirements.	Applicant’s cumulative GPA meets or exceeds requirements.	Applicant’s cumulative GPA is below requirements.
	Applicant has completed all prerequisite coursework.	Applicant has completed most prerequisite coursework.	Applicant has not completed most prerequisite coursework.
	Grades in past science or Biophysics-related coursework are universally very strong (i.e., mostly or all A grades).	Grades in science or past Biophysics-related coursework are acceptable (i.e. a mixture of A and B grades).	Grades in science or Biophysics-related coursework are not strong (i.e. a mixture of B and C grades or lower).
	Grades in courses that are not Biophysics prerequisites are mostly B+ or above.	Grades in non-Biophysics prerequisites are mostly B or B–.	Grades in non-Biophysics prerequisites are mostly below B–.
	Strong letters of recommendation are included from past instructors in science and/or biophysics-related coursework.	Good letters of recommendation are included from past instructors in science and/or biophysics-related coursework.	Letters of recommendation from past instructors are not included.
<b>Communication:</b>			
<b>Applicant demonstrates the ability to communicate clearly with faculty and peers.</b>	Reference letters document <u>very</u> well-developed oral and written communication skills.	Reference letters document well-developed oral and written communication skills.	Reference letters do not document well-developed oral and written communication skills.

	Applicant demonstrates strong knowledge of the literature, either through their personal statements or through the reference letters.	Applicant demonstrates evidence of knowledge of the literature, either through their personal statements or through the reference letters.	Applicant demonstrates little or no evidence of knowledge of the literature.
<i>While the reference letters are important, the applicant's own writing samples may be a more direct measure of communication competence:</i>			
	An excellent personal statement provides an articulate narrative for why the applicant is seeking admission to the Biophysics Program. This narrative includes strong logical organization of clear arguments told with excellent grammar and free of typographical errors.	A borderline personal statement may include a narrative for why the applicant is seeking admission to the Biophysics Program. However, this narrative may lack strong logical organization of clear arguments, and/or may have defects in grammar, and/or contain typographical errors.	An unacceptable personal statement does not include an explanation of why the applicant is seeking admission to the Biophysics Program, or if some explanation is present, it is not logically organized with clear arguments, and/or may have defects in grammar, and/or may contain typographical errors.
	The applicant has presented their work at several meetings, including a national meeting.	Applicant has presented their work at least at one local, regional or national meeting.	The applicant has not presented their work at a meeting.
<b>Dedication:</b>			
<b>Applicant demonstrates consistent commitment to research appropriate for their educational background.</b>	Applicant has regularly and consistently been involved in research activities as an undergraduate or MS student. At least one strong letter of recommendation is from a current or past research supervisor.	Applicant has participated in research occasionally as an undergraduate or MS student, as documented in letters of reference. At least one recommendation is from a current or past research supervisor.	Applicant has not participated in research or participated only for a short time (e.g., one or two terms) as an undergraduate or MS student. A letter from a current or past research supervisor is absent.

<b>Creativity:</b>			
<b>Applicant demonstrates the ability to creatively perform research at the undergraduate and/or MS level.</b>	Applicant has made extensive contributions to biophysical or related research as an undergraduate or MS student. This is documented by one or more of the following: authorship on peer-reviewed publication(s), or letters of reference from past research supervisor(s), or other elements of the application materials.	Applicant's past research experience may not have resulted in publication authorship. Previous contributions or creativity are documented explicitly in letters of reference from past research supervisor(s), or in other elements of the application materials.	Because applicant has little or no research experience, no past contributions and/or creativity are documented in the application materials.
<b>Programmatic fit:</b>			
<b>Applicant's research interests align with Program faculty research interests.</b>	Applicant both expresses and explains interest in specific Program faculty research.	Applicant expresses interest in specific Program faculty research, but does not explain their reason(s) for that interest.	Applicant does not express interest in specific Program faculty research.
	Letters of reference advocate for the applicant's alignment specifically with Program faculty research interests.	Letters of reference are positive in a general sense, but do not address the applicant's alignment specifically with Program faculty research interests.	Letters of reference provide evidence that the applicant's interests do not align with Program faculty research interests.
<b>Diversity and inclusiveness:</b>			
<b>Overcoming adversity.</b>	Application materials document evidence of overcoming adversity.	Applicant materials document limited evidence of overcoming adversity.	Application materials document no evidence of overcoming adversity.
<b>Contributing to diversity.</b>	Extensive contributions to enhancing diversity are documented either in the personal statements or letters of recommendation.	Contributions to enhancing diversity are documented either in the personal statements or letters of recommendation, <u>and/or</u> the application materials document a commitment to contributing to diversity.	Application materials document no evidence of contributions to enhancing diversity.

**Scoring:** Each of the 15 line items will receive a numerical score from 1 to 9.