



Los Angeles Mission College (LAMC)

Department of Life Sciences

Student Contract

LAMC was awarded a National Science Foundation ([NSF HSI; Award Abstract #1832348](#)) grant to increase the number of students majoring in Biological Sciences to transfer to 4-year universities by assisting them to succeed in College Algebra and Trigonometry classes.

Eligibility requirements:

- o U.S. Citizenship –or- Permanent Residency (*provide one documentation as specified below*):
 - U.S. Passport (*must be fully-valid & undamaged*)
 - U.S. Birth Certificate U.S. Citizenship Certificate U.S. Naturalization Certificate
 - U.S. Permanent Resident Card Other _____
- o Declared major in Biological Sciences at LAMC (*provide a copy of unofficial transcripts from LAMC*)
- o Enrolled in either **Trigonometry (MATH 240)** **or** **College Algebra (MATH 245)** **or** **Pre-Calculus (MATH 260)** course at LAMC and will continue with **Calculus with Analytic Geometry I (MATH 265)**
- o Student educational plan approved by the STEM counselor at LAMC (*provide a copy*)
- o Commitment to participate in academic success workshops while being enrolled in the Math class (at least 80% of the workshops offered in one semester) at LAMC

Student's Full Name: _____	Student ID#: _____
E-mail: _____	Phone: _____
Semester & Year: _____	Gender (<i>circle one</i>): Male Female Other (<i>specify</i>): _____
Enrolled in	
<input type="checkbox"/> Trigonometry (_____) <input type="checkbox"/> College Algebra (_____) <input type="checkbox"/> Pre-Calculus (_____) <i>(Math 240) Semester & Year (Math 245) Semester & Year (Math 260) Semester & Year</i>	
<input type="checkbox"/> I have completed the questionnaire on page 2	

By signing below, I hereby declare that I meet all the eligibility requirements listed above. I understand that I have to participate actively in at least 80% of the academic success workshops (ASW) to receive a \$400 gift card. (Gift card will only be awarded to students declared as Biology majors.)*

Signature

Date

If interested, please send completed application to Biology@lamission.edu

**ASW are a small community of students working collaboratively to master course material and material prepared by biology and math faculty with the guidance of a facilitator. Students must study the topics beforehand and bring unsolved problems to the ASW. The objectives of ASW are to apply knowledge of mathematics and biology, to analyze and interpret data, to function as collaborative student teams, to identify, formulate, and solve problems, to communicate effectively, and to understand the impact of biological solutions in a global, economic, environmental, and societal context.*





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For consideration, you must also answer the questions below:

1. Which major are you planning to transfer into (name major and university)? _____
2. What is your current college GPA (on a 0.00 to 4.00 scale)? _____
3. What year did you graduate from high school? _____
4. What was your final high school GPA (on a 0.00 to 4.00 scale)? _____
5. Which math courses and science courses have you completed? (List all)

<i>Specify Math / Science Course (List one course per row)</i>	<i>Semester & Year</i>	<i>Grade</i>	<i>Location (i.e. name of high school or college)</i>

6. Which Math path have you chosen to follow:
 - College Algebra -> Trigonometry -> Calculus OR
 - Trigonometry -> College Algebra -> Calculus OR
 - Trigonometry -> Pre-Calculus -> Calculus OR
 - Pre-Calculus -> Calculus OR
 - _____

Pre- and Post-Surveys completed

All documents listed on page 1 submitted including the sign in sheet for the AEWs.

Reviewed & approved by Par Mohammadian Signature: _____ Date: _____

Gift Card received on: _____

Student Signature: _____ Date: _____



This informed consent form is for students participating in the Bio Scholar Program.

**Principal Investigator (PI) NSF HSI grant: Parvaneh Mohammadian, Life Science faculty
Los Angeles Mission College (LAMC), Dept. of Life Sciences**

This Informed Consent Form has two parts:

- Information Sheet (to share information about the study with you)
- Certificate of Consent (for signatures if you choose to participate)

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

Introduction

This project is conducting research on how developing a student-centered intervention supports success of the LAMC biology students. This information sheet is to inform you about the study. You do not have to decide today whether or not you will participate in the study. This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask me.

Purpose of the research

At LAMC we have about 400 declared biology majors annually. The majority of incoming biology majors are placed in college algebra and trigonometry. With a low success rates for both courses only less than 20 students reach the calculus courses. Every year, only about 15 biology students transfer to four-year universities. Most students drop out of their math courses even before they reach the calculus courses. The purpose of this study is to offer college algebra and trigonometry workshops that are offered weekly to support students.

Type of Research Intervention

This study will involve your participation in weekly academic success workshops. The workshops will be held for about 2 hours. During the workshops you will review mathematical concepts that relate to biology in addition to problems that you may have in your math classes.

Participant Selection

You are being invited to take part in this study because you are a declared biology major student enrolled in a college algebra or trigonometry course at LAMC.

Voluntary Participation

Your participation in this study is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate, all the services you receive will continue and nothing will change. You may change your mind later and stop participating even if you agreed earlier.

Procedures

We are asking you to help us learn if providing this student-centered intervention (which means attending the weekly workshops) will help students that are declared biology majors to succeed in their math classes. I am inviting you to take part in this project. If you accept, you will be asked to complete an application form. This form will provide us with your unofficial transcripts, your educational plan, and since we are a federally funded project, we will need citizenship verification. You will also be asked to attend and participate in 80% of the academic success workshops. To participate in the workshops, you must be enrolled in either college algebra or

trigonometry. During the workshops you will have a facilitator who will review the math supplemental materials with you and will also assist with any questions you might have in the subject.

I will be sending a pre-survey with questions asking you about your study skills and how often do you seek educational help after the first workshop. At the end of the semester, you will be given a post survey in regard to the workshops. I will ask questions to get your feedback on the facilitator and the material used during the workshops.

Duration

The research will take place from the beginning of the academic semester to the end at LAMC. The workshops will be held weekly for about two hours. During these two hours you will have time to ask questions related to your homework or topics you need further explanation. You will also be using math supplemental material created for the workshops to show the application of college algebra and trigonometry in biology. You will also have reviews to help better prepare you for your tests.

Risks

You will be asked to answer some questions on the survey related to the facilitator's/tutor's performance and the workshops. The surveys will be anonymous so there will be no direct link to you. I hope you answer honestly and know that there will be no repercussion for your answers. You do not have to answer any question or take part in the discussion/interview/survey if you feel the question(s) are too personal or if talking about them makes you uncomfortable.

Benefits

In addition to receive support in your math, other benefits you will receive from being part of our project are that you will be included in our database and will receive information on upcoming events, internship, and network opportunities. You will also have the benefit of receiving tutoring services. You will also have the academic support of an entire department. By participating you will also have an opportunity of applying to the honors program offered at LAMC.

Reimbursements

You will not be provided any incentive to take part in the study. To compensate your time a \$400 gift card will be given to those who complete 80% of the workshops and pass the math class they are enrolled in.

Confidentiality

At the end of each semester, we will collect your grade in the math class and compare your grade to those who did not attend the workshops. We will not be sharing information about you to anyone outside of the project team. The information that we collect from this project will be kept private. It will not be shared with or given to anyone except our external research analyst (Amanda Valbuena at University of California, Irvine).

Sharing the Results

Nothing that you tell us will be shared with anybody outside the project team, and nothing will be attributed to you by name. The data collected from this study will be anonymous and will be shared with the National Science Foundation (the funding agency) and the results will be submitted to be published in journals. We hope that the information we learn from this project will not only help increase the number of biology majors at LAMC but also help other institutions to support their students.

Right to Refuse or Withdraw

You do not have to take part in this study if you do not wish to do so and choosing to participate will not affect your academic standing in anyway. You may stop participating in the workshops at any time that you wish without your academic standing being affected.

Who to Contact

If you have any questions, you can ask now or later. If you wish to ask questions later, you may contact

Dr. Parvaneh Mohammadian at mohammp@lamission.edu | 818-833-3424.

This proposal has been reviewed and approved by Los Angeles Community College District Institutional Review Board (LACCD IRB), which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IRB, contact Dr. Milagros Kudo, Research Analyst at LACCD.

Part II: Certificate of Consent

I have been invited to participate in the project as described above. I read the information given to me, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked, have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant _____

Signature of Participant _____ **Date** _____

Statement by the researcher/person taking consent

I have accurately read out the informed consent form to the potential participant, and to the best of my ability made sure that the participant understands that the details on the project. I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of the informed consent has been provided to the participant.

PI: Parvaneh Mohammadian

Signature _____ Date _____