



CLINICAL SCIENCE CLUB

CALIFORNIA STATE UNIVERSITY DOMINGUEZ HILLS

EST. 2016

Leadership Development | Community Service | Networking Opportunities

Frequently Asked Questions

Last Updated: 10/10/2021

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About the Club

What is the Clinical Science Club of CSUDH (CSC) ?

Clinical Science Club of California State University, Dominguez Hills is a student-run organization that endeavors to promote the excellence of Clinical Science students on campus and in the community.

We strive for professional development, which not only includes academic achievement, but also social networking. We believe that, while it is important to achieve academic success and prepare for interviews, it is equally important to maintain a work-play balance. The Clinical Science Club aims to do this by hosting events that cater to the different levels of students, from freshmen, to transfer students, to seniors preparing to apply to the internship. We want you, the future Medical Technologists, to connect with the people you'll be working with in the future.

How do I become a CSC member?

See [THIS PRESENTATION](#) here for all the information you need to know!

The membership window is open from the 1st General Meeting (09/03/2021) until December 9th. This does not mean to lag! Join when you can to have access to all the perks of being in the CSC Family

When/where are CSC meetings held?

We expect general meetings to be held virtually on a bi-monthly basis this year. Events and meetings are held at varying times, so hopefully, everyone will be able to attend some meetings. The times will be announced on our [Instagram](#) and [Torolink](#), so you can check these to be sure you're in the loop!

Program/Internship Questions

How do I apply for the clinical internship?

Here are directions from Dr. Nasr on applying to the clinical internship:

1. You **must** be admitted and in good standing with California State University, Dominguez Hills.
2. You **must** use your **TORO email**. All following correspondence will be directed to your TORO email.
3. **Starting November 1st**, you can email clsinternship@csudh.edu with your request for an application. **All requests received before November 1st will be denied.** Therefore, please wait until November 1st to send your request. In your email include all information requested below. If any information is missing, you will not be receiving an application.
 - a. **Student Name:**
 - b. **Student ID:**
 - c. **Semester/year graduating (for PB students, completion of preclinical courses):**
 - d. **Student Email:**
4. In response, the student will receive an application package which includes the fillable recommendation letters to submit to your references.
5. Carefully complete and submit the application before the deadline of **November 30th at 5:00 PM.** **Late applications will not be accepted.**

Important Note: Do not copy and scan the letters of recommendation. Please forward the fillable format PDF file directly to your 3 references. You will need to use Adobe Acrobat to digitally sign the waiver on the letters of recommendation. If you do not have Adobe installed on your computer, please visit the IT website to install the software <https://www.csudh.edu/it/>

When can I apply for the clinical internship?

The application date is in the Fall for Medical Technology, and Spring for Cytotechnology. You must complete your pre-clinical coursework by the end of the Spring Semester in the academic year you apply. Additionally for transfers, a minimum of two semesters must be spent at CSUDH before applying to the internship.

How can I improve my chances of being accepted into the clinical internship?

GPA - Faculty members consistently emphasize that your GPA is one of the most important factors in being accepted to the internship. Before anything else, work diligently in your classes to ensure your GPA is impressive.

Lab experience - While not required, having previously worked in labs will help you stand out and allow you to speak to your clinical capabilities during the interview process.

Form relationships with your professors - In addition to possible letters of recommendation, getting to know your professors gives you a chance to show your interest in clinical science, ask for advice, and learn of opportunities you may otherwise not hear about.

Interview preparation - As one of the final hurdles to internship acceptance, the interview has an outsized importance for relatively how little time it takes. Make sure to prepare for the internship interview. The CSC offers Mock Interviews most years before the interview process begins, where you can practice your speaking skills and answers.

How can I obtain lab-related experience?

Potential opportunities for experience include working as a:

- Specimen Processor
- Lab Assistant / Technician
- Phlebotomist
- Undergraduate researcher
- Hospital volunteer

The most common entry-level positions to gain clinical lab experience include Specimen Technician (Processing) and Lab Assistant jobs. Clinical Lab Assistant jobs may have CPT licensure as a qualification. While phlebotomists are geared more towards specimen collection, they often assist and perform tests in the clinical lab as well.

If you want to become involved with research on campus, you can look into professors whose particular research interests you and contact them to ask if they are looking for students to volunteer/work in their lab. But, keep in mind that COVID-19 has limited many campus opportunities.

Do I need the internship to become a licensed CLS?

Yes. An internship program is required to take the board exam and become ASCP certified.

Is it possible to work full-time while going through the CLS program?

It is not advisable to take a full course load on top of a full-time job. Some students attend CSUDH part-time while working a full-time job, but this is difficult as well, and will lengthen the time it takes to get through your pre-clinical work. If considering part-time program attendance, you should keep in mind that some upper-division courses must be taken within five years of your internship application.

The clinical internship itself is a mandatory full-time position and you will not be able to work another job during it.

What options are there other than the internship once I graduate with a B.S. in Clinical Science?

Upon graduating, you will already be prepared for certain clinical and research laboratory jobs. Additionally, a B.S. in Clinical Science can be a stepping stone to graduate studies or medical school. In fact, some students take additional coursework to be considered pre-med but still have clinical science as an option.

Registration Questions

How do I obtain permission numbers?

This depends on the subject.

Here are directions from Dr. Nasr on obtaining CLS class permission numbers for **previous semesters**, which may give you insight on what to look forward to this year:

1. Every student has a unique **Registration Date and Time**. You can check your specific day and time by looking at the **right side** of your **Student Center** under “**Enrollment Dates**”. Do **not** take any action until you know the day you can actually register.
2. **On the day you can register**, send an email to Mr. Angel Valdez (avaldez62@csudh.edu) with the following information.
 - a. **Student Name:**
 - b. **Student ID:**
 - c. **Student Rank (e.g., sophomore, junior, senior, postbaccalaureate):**
 - d. **Student TORO email:**
 - e. **CLS Course # and section you are interested in** (Ex: CLS 301-02)
3. Next, you will receive an email from Dr. Nasr with your permission numbers to your **TORO email**. This step may take up to **3 workdays**.
4. Use the permission numbers to register immediately **without any delays**.

Important Notes:

1. **ALL CLS** Courses require a permission number whether you have completed prerequisites or not.
2. You need to use the permission numbers to register for the courses as soon as possible. Otherwise, permission numbers will expire, and you will lose your spot.
3. If you email Mr. Valdez before your registration opens, your request will be denied.
4. If you are looking to enroll into multiple CLS courses, please include your request within the **same email** to expedite the process.
5. This announcement is only for courses that start with CLS prefix and **NOT** for other courses such as BIO or CHE.

Here's our advice for Microbiology, Parasitology, and Medical Bacteriology:

Make sure you're added to the waitlist by contacting Gaby from the Bio department in the **Fall**. They will let you know when you are able to take the course by evaluating the courses you have taken so far. You can place yourself on the waitlist if you have taken or are currently taking the prerequisites.

Which courses are the most impacted?

- Most (need to be on waitlist) - BIO 324/325, BIO 458/459, BIO 425/435
- Middle (may fill up before your registration date) - CLS 306, CLS308, CLS 401
- Least (very good chance to get in) - CLS 301, CLS 304, CLS 307

Which courses do I need to sign up to a waitlist for and how do I add myself?

BIO 324/325 (Clinical Microbiology), BIO 458/459 (Human Parasitology), and BIO 425/435 (Medical Bacteriology) are waitlisted. Confirm that you meet the prerequisite requirements for these courses, and then contact Gaby in the biology department to be added to the waitlist in **Fall**.

Note from Gaby:

Students enrolled in Organic Chemistry (students will meet the prerequisites by the end of the fall semester) will be considered ONLY after all other students who have met the prerequisites have been counted and there is still space in the classes.

Follow this procedure:

Send an email AFTER the 6th week of fall semester to biology@csudh.edu with the following information:

- 1. Name*
- 2. Student ID#*
- 3. Toromail*
- 4. Have completed or are you currently enrolled in Organic Chemistry or Survey of Organic Chemistry*

An email will be sent out confirming students are approved to stay in the waitlist or not. More information on the priority for these will be sent out to those students approved to stay on the waitlist. Priority for the classes is based on who is closer to graduation based on units still needed to graduate (not on how many units a student already completed).

What are the prerequisites to the waitlisted classes?

BIO 324/325 (Clinical Microbiology) prerequisites:

- BIO 122, BIO 123 (Principles of Biology II);
- CHE 300, CHE 301 (Organic Chemistry I) **or** CHE 310, 311 (Organic Chemistry I), **or** CHE 316, CHE 317 (Survey of Organic Chemistry);

BIO 458/459 (Human Parasitology) prerequisites:

- BIO 122 and BIO 123 (Principles of Biology II);

BIO 425/435 (Medical Bacteriology) prerequisites:

- BIO 324, BIO 325 (Clinical Microbiology);
- CHE 310, CHE 311 (Organic Chemistry I) **or** CHE 316, CHE 317 (Survey of Organic Chemistry)

Which classes do not have prerequisites?

This information is based on the transfer student pathway, assuming all of the lower division classes have been completed.

The classes that do not have prerequisites are as follows:

- CHE 316/316 (Survey of Organic Chemistry)
- CHE 230 (Quantitative Analysis)
- BIO 220 (Molecular Biology)
- BIO 458/459 (Human Parasitology) - waitlisted!
- CLS 301 (Introduction to Clinical Science)
- CLS 304 (Urinalysis)
- CLS 308 (Pathophysiology)
- HEA 201 (Health Systems)
- PHY 100 (Physics)

Class Questions

Which courses can I take at another school or have transferred towards my CLS degree?

For any questions regarding which courses are accepted in the CSUDH CLS program, we recommend that you contact Dr. Nasr. If considering taking a course at another school, inquire about accepted programs.

If you want to transfer courses already taken at another university, you will need to send your transcript (and possibly class syllabi) in an email and request that the courses be evaluated for equivalency to CSUDH classes. If you are transferring from a community college, assist.org is a valuable resource to get an idea of what courses will transfer.

For Microbiology in particular, we understand that they prefer, if not require it to be taken at Dominguez Hills. Some have taken Medical Bacteriology online or at other schools, but you would have to coordinate this with Dr. Nasr..

What is CLS 302?

It is not an actual class or required to complete the CLS program, but it gives you a 1 unit A for your GPA and designates on your transcript that you are CPT certified. If you have a CPT license, you can contact the department to have CLS 302 added.

Do CLS majors need to take physics?

Yes. Although it's not an upper-division requirement, you must take physics to be eligible for a training license when the internship comes around.

Would you recommend taking CLS 304 and CLS 306 in the same semester?

It's possible, but there will be a lot of material. And, if you haven't yet taken hematology or biochemistry, you may have to put additional effort into catching up on some subjects. Just make sure to take into account what else you will have going on in your life.

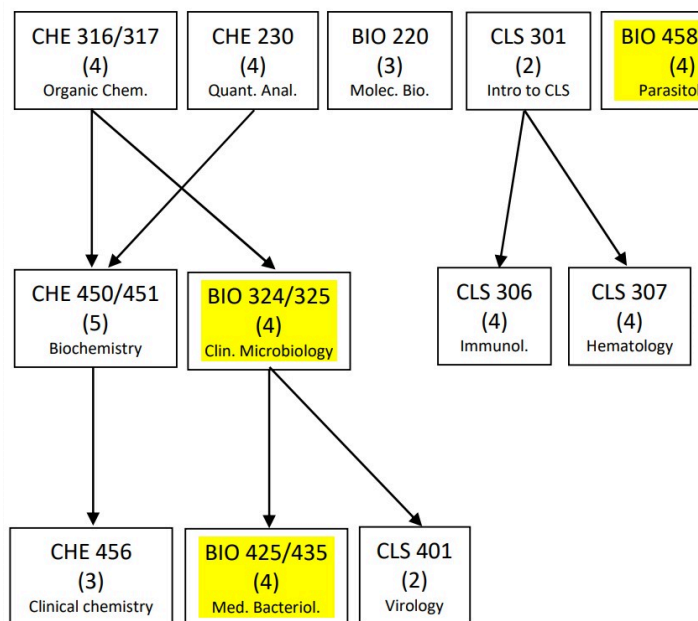
Which classes can I take during summer semesters?

The only classes that are available during summer semesters are GE classes, CLS 304 (Urinalysis), and CLS 307 (Hematology). Pre-COVID, BIO 324/325 (Clinical Microbiology) was also available during summer; we are not sure if that schedule will continue once/if we go back to campus! Stay tuned!

Which classes do you recommend taking first?

CHE 230 (Quantitative Analysis) and CHE 316/317 (Essentials of Organic Chemistry) should be taken the first semester. Both of those classes are prerequisites to other classes; CHE 316/317 is additionally a prerequisite to a waitlisted BIO 324/325 (Clinical Microbiology). It is important to get those classes completed so that you are eligible for Biochemistry, Clinical Microbiology, Clinical Chemistry, Medical Bacteriology, and Virology in the next semesters.

CLS 301 is another class that is recommended for your first semester. It is an introductory class that will prepare you for the next major classes and it is a prerequisite for CLS 306 (Immunology and Immunohematology) and CLS 307 (Hematology).



Why do I have to take more GE classes?

We know: you already took lower division GE classes! But in order to graduate with a Bachelor's degree you also must complete 3 upper level GE classes. To see which classes are eligible to fulfill this requirement:

1. Go to your CSUDH portal.

2. Click on Student Center (yellow icon):

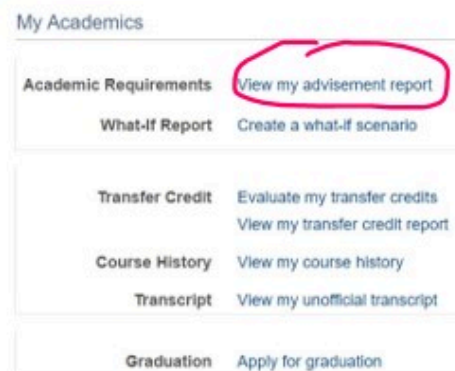


**Student
Center**

3. Click on My Academics:



4. Click on View my advisement report:



5. Look at the list under the Undergraduate General Education section. You will see three sections of Upper Division (UD) classes: one in humanities, one in natural sciences, and one in social and behavioral sciences. Clicking on the green arrow will show the list of classes you can choose from.

UD Integrative Studies in Humanities

Upper Division Integrative Studies in the Humanities

▶ Upper Division Humanities

UD Integrative Studies SMT

Upper Division Integrative Studies in the Natural Sciences

▶ Upper Division Science, Math & Technology

UD Integrative Studies SBS

Upper Division Integrative Studies in the Social Sciences

▶ Upper Division Social & Behavioral Sciences

What is the perfect schedule that will allow me to graduate in 2 years (after transfer)?

While there is no perfect schedule, some things are worth remembering:

- Take CHE 230 and CHE 316/317 during your first semester, if possible. This will open up your availability to the waitlisted classes and CHE 450 (Biochemistry).
- Sign yourself up for waitlisted classes (BIO 324/325 and BIO 458/459) during the Fall as you are completing CHE 316/317.
- Pair up major CLS classes with GE classes, PHY 100, BIO 220, HEA 201 which are considered easier. Don't overload your schedule!
- Take summer classes, if you can. CLS 304 and CLS 307 can be taken during the summer semester.

Example schedule, based on a transfer student pathway, that may help in graduating in two years:

Third year					Fourth year					Classes to add in any semester:	
Fall 2019		Spring 2020		Summer 2020		Fall 2020		Spring 2021			
CHE 230	3	CHE 450, 451	5	CLS 304	3	BIO 324, 325	4	CLS 401	2	HEA 201	3
CHE 316, 317	4	CLS 306	4	CLS 307	4	CHE 456	3	BIO 425, 435	4	BIO 220	3
CLS 301	3					CLS 308	3	BIO 458, 459	4	PHY 100	3
										GE	3
										GE	3
	10		9		7		10		10	GE	3
Classes in yellow should be taken that semester only.											
Classes in red are waitlisted.											

What is GEAR and do I need it?

GEAR stands for Graduation Writing Assessment Requirement. All students wishing to graduate **have to** fulfill this requirement. Pre-COVID this was an hour (or two hours, if not native English speaker) essay writing exam. Now, due to the pandemic, this exam is not held on campus anymore and GEAR can be fulfilled by completing ENG 350 class.

Students graduating in the Fall 2021 and Spring 2022 are exempted from GEAR requirement.

[GWE \(csudh.edu\)](http://csudh.edu)

Any tips on major classes? I'm scared!

Make sure you have a solid foundation in chemistry, biology, anatomy, and physiology. Study all of the materials provided, read the textbook, form study groups, and don't be afraid to ask questions. Remember, you are aiming to do your best towards an A in every class!

What are CLS classes about exactly?

- **301** - introduction to the field. You will learn about phlebotomy and the order of draw; Quality Control (QC) and Quality Assurance (QA) and why those are important.
- **304** - analysis of urine and bodily fluids. You will relearn the function of kidneys, the relationship between water and kidneys, as well as various urinary diseases and how to detect them.
- **306** - this class is divided into two classes: immunology and blood banking. The first 8 weeks are about immunology. You will learn about the many cells that make up the immune system, their formation, and function, as well as diseases and how to detect them. The last 8 weeks of class are dedicated to blood banking. You will learn about many blood types, how to rule out antibodies, what is the concept behind blood donation, and how to process the blood afterwards!
- **307** - hematology: the study of blood. You will learn about how blood is formed, how exactly it transports oxygen to the tissues, how there are many, many anemias and white blood cell disorders.
- **308** - pathophysiology. If you have a solid background in physiology, you will love this class. You will refresh your memory on the anatomy and physiology of various organ systems and will learn about pathological processes that may happen and why. Bread and butter for future CLSs!
- **401** - virology.

Post-Baccalaureate Questions

I'm a new post-baccalaureate student. How do I figure out which classes I need to take?

PB students usually need to have their prior courses evaluated for equivalency to CSUDH courses by sending an email with their transcripts to Dr. Nasr. After your courses have been looked over, they will give you a list of courses you still need to take.

What is CLS 595? Is there a waitlist?

CLS 595 is a substitute for BIO 458/459 (Parasitology) offered specifically for PB students. CLS 595 isn't one of the most impacted courses, so there isn't a year-long waitlist, as is the case with med bac. But, that isn't to say that the course cannot be filled to capacity, in which case a waitlist would be started.

Can post-baccalaureate students take Human Parasitology with Laboratory (CLS 458/459) at CSUDH?

Because the Biology Department prioritizes CLS Undergraduates, PB students are offered CLS 595 for their Parasitology Laboratory. CLS 595 should be PBs first choice when registering for class. This is offered under the Clinical Science department (Prefix-CLS), NOT the Biology Department (Prefix-BIO).

Education/learning

Do you recommend buying/reading textbooks? Any supplemental materials or websites I should know about?

Reading textbooks is always recommended! Many assignments will be tough to complete without reading the book. Make sure you not only read the assigned chapters but also check your knowledge by doing the end-of-chapter quizzes.

For supplemental materials we recommend Khan Academy, Osmosis website, Youtube channels:

- Leah4sci
- LabTV
- Medical Lab Lady Gill
- Robert Bounds
- Patrick Tracy
- BloodBankGuy
- ASCLS
- Rea Nav
- MadMedicine! - Education
- MedCram
- LabsforLifeProject
- Frank Lecture

Where can I ask for help? Study groups, tutoring?

For tutoring check out the Toro Success Collaborative (TSC). Log in with your student credentials to csudh.campus.eab.com and click on the blue button on the right side: *Schedule an advising or tutoring appointment*. You will be able to pick a class and a tutor for the day and time that fits your schedule!

Also, check out our Discord! You may find students from your class and form a study group. Discord allows you to attend live voice sessions which are perfect for studying.

Lastly, don't hesitate to ask your instructor directly! They are there to help you with understanding the material and will be happy to explain.

What is the best way to study?

Everyone studies differently! But one thing is always true: repetition is the key to success.

Make sure you are free from distractions and have a comfortable space. Study the notes and the textbook and afterwards quiz yourself. Explain the topic to yourself in front of a mirror or to a friend. Instead of memorizing dry information try to understand the concept: why things work the way they do; what does that mean in terms of disease states; how the disease can be detected and why is it done this way. If you're visual, draw it out, make a table or an arrow diagram. You can also create flash cards! Find what works for you and repeat, repeat, repeat.

Helpful Contact Information

The Clinical Science Club:

Torolink: [Clinical Science Club](#)

Email: dhclinicalscienceclub@gmail.com

Instagram: @csudhclinicalscienceclub

Dr. Nasr - Faculty Advisor and Department Chair:

pnasr@csudh.edu

Angel Valdez - Major Academic Advisor:

avaldez62@csudh.edu

Biology Department (Gaby):

biology@csudh.edu