

Clinical Rotations Course – Spring 2021

Course Instructor(s):

Sivakumar Balasubramanian (siva82kb@cmcvellore.ac.in)

Course TA:

Tanya Subash (tanusept6@gmail.com)

Course Website:

<https://siva82kb.github.io/teaching/cr/cr.html>

Bioengineering office contact: bioengg@cmcvellore.ac.in

The aim of this course is to expose you to workflow, technology management, and clinical problems at a tertiary hospital to contribute to the day-to-day activities, and research and development in a hospital. We hope this course will train you to keenly observe the working of a tertiary hospital, identify problems that could potentially be addressed through technology, and use their engineering and design skills to solve clinically relevant problems.

Course activities

This course involves the following components/activities:

1. **Weekly clinical visits** to different departments where you will observe and learn their daily workflow. This will also be an opportunity for you to identify problems that could be solved through engineering solutions. The schedule for the week will be provided to you once it has been finalized. **All clinical visits are compulsory and should not be missed. Prior permission must be sought to miss a clinical visit if there is a genuine reason for doing so.** Ten marks will be deducted from the course score if a student misses one of the clinical visits without seeking the permission of the course coordinator.
2. **Clinical project:** One of the main components of the course is the semester long clinical project. You will be provided with a list of potential projects at the start of the course from which will need to choose a project. This will be a design or research project that addresses a problem in a clinical or an academic department at CMC Vellore. The primary guide for the project will be a person from one of the clinical departments and a faculty from Bioengineering will act as a co-guide.

Reports and other paperwork

You will be required to submit the following reports over the duration of the course, which will be used to evaluate your performance. All course documents must be submitted using the course page for uploading documents. The templates for the different documents are available on the course website.

1. **Weekly clinical report:** Use the template provided to submit this every week. The report on this week's report will be due on following the Monday.
2. **Clinical project proposal:** You will be required to submit the topic and the proposal for the clinical project you will undertake.
3. **Clinical project final demonstration and report:** At the end of July you will need to demonstrate your clinical project and submit the final project report, providing the details of the clinical problem, the engineering design and development, and the testing results.

Important (tentative) dates

Date/Time	Activity
Every week Wednesday and Friday (2PM to 5 PM)	Clinical visit
Every week Monday	Weekly clinical visit report
February 6	Clinical project proposal
March 31	Clinical project progress review
July 31	Clinical project demonstration and report

Course assessment

The final grade for the course will be determined based on your performance on several activities throughout the course.

Activity	Score
Weekly reports (<i>Late reports will be not be graded</i>)	30
Clinical project (with report)	70
Total:	100
Penalty for missing a clinical visit without seeking prior permission	-10

Grade assignment: 80 and above = **A**; 70 to 80 = **B**; 60 to 70 = **C**; 50 to 60 = **D**; 40 to 50: **E**; Below 40: **F**