$\Sigma\vec{F}=m\vec{a}$ Physics 2027 at San Diego Math Circle

Instructor

Your instructor is **Jacob Saret**. I have developed and refined this course over several years since originally offering it for the 2019 season at SDMC. I hold a M.S. in Physics from UCSD, a B.S. in Physics from UCLA, and am the director of **Saret & Co. Education**, providing tutoring, mentoring and advising with a focus on working with students with nontraditional educational paths.

You can contact me at **saret.co/contact**. That web form is the fastest way to reach me for questions.

Materials

All materials for the class, including the schedule, will be posted on the website, **saret.co/teaching**. Current materials and announcements can be found through the **2027** button, and older course materials can be found through the **2026**, **2025**, **2024**, **2023**, **2022**, **2021**, **2020** and **2019** buttons.

The official schedule and other administrative information is kept on the San Diego Math Circle website, **sdmathcircle.org**.

Schedule

We will be meeting on numerous **days TBD**. Please visit the **2027** page of the course website for the exact schedule.

The 2027 $\Sigma\vec{F}=m\vec{a}$ Exam will be administered on **a date TBD**.

Zoom

We will be meeting through Zoom, in the same way the virtual Saturday SDMC sessions proceed. Please note that the **Zoom meeting details are <u>not</u> on the course website**, as they are available only through SDMC to registered students.

Sessions

Most sessions will include discussion of physics content and problem solving techniques. Some weeks, we will have practice exams, and towards the end of the course we will have a final review.

I will assign light homework most weeks, which usually consists of either a few problems to work in explicit detail, which I prefer not to do during our limited class time, or a practice exam to help decide the next topics in the course. I will not intentionally give you tedious homework.

Exam

The $\Sigma\vec{F}=m\vec{a}$ Exam is 25 multiple choice questions (answers A-E) which you have 75 minutes to complete. Getting 14-18 correct answers usually qualifies students for the US Physics Olympiad.

Most of the exam is basic mechanics, like that covered in AP Physics 1 or AP Physics C Mechanics, but closer to the level of the former. Some calculus can help but it is not strictly necessary. However, due to the pacing of the exam, the spirit of the questions is very different from what you might find in a physics class at your school.

Please note your instructor is not involved in the administration of the $\Sigma\vec{F}=m\vec{a}$ Exam. Any questions about registration etc. should be directed to the SDMC administration.